

Diary Web – Based Application

By

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17091

Dissertation submitted in partial fulfillment of
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CERTIFICATION OF APPROVAL

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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

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ABSTRACT

This document is a fully completed stage report for a project titled “Diary Web – Based Application” that relating to how aspects of apply the diary in life and an electronic application of audio voice recorder that can be combined to create a fully autonomous voice recording for diary machine.

The existing application of diary application that applicable is a web – based system where it will automatically generated from user ideas, histories or activities that need to be saved. It consists of location, time and date for the information that being recorded but it not useful when retrieved as references or playback the information. In this project had do a researched, designed and ultimately implemented using a combination of web based which is XAMPP Software that consist of PHP language, Apache Application and also using Database system application which is MySQL for record purposes in the application system development.

The electronic of voice recorder is implemented in JAVA language with audio functionality and being formatted in WAV audio format. This application will use a suitable pattern matching system that gives satisfaction to user, secure and easy to use.

KEYWORDS: Voice Recorder, Diary, Web – based, JAVA, PHP, MySQL, Database, WAV audio format, XAMPP Software, Apache Application

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CHAPTER 1

INTRODUCTION

Advances applications nowadays in term of technology are rapidly grow like audio devices which allow for the capture of a wide variety of information. It also becomes more personal, smaller, portable and more specialized in capturing information. In addition, the relevant diverse and sophisticated software can be use for delivering, manipulating, and storing and capture information easily. These capabilities show that with huge advances in computer storage and web server means new technology is greatly enhancing our ability to record and keep the information of everyday life events.

These advances give great potential for technological innovation on people. For example, the capabilities of voice recorder for diary can easily added to existing devices such as personal laptop. An audio application for voice recorder that created for diary can be thought of as a method that invoked over the web from inside of a user application. An application will be process the voices that are recorded and send to the server for saved. Then, it will also retrieve accordingly and can edit the application by user. The goal of this project is to analyze, design, develop and test a voice recording which can be visualize by described in a web – based and database system also can be viewed. This system creation for diary web – based application is enhancing from the existing application.

1.1 Background

Diary can be defining as a daily record especially personal events, experiences or observations. Diary is great ways to keep track on the past and think about the future. Normally user will record where is the location of user ate, with whom user meet up and the details leading up to the situation in the office. It is look like a newspaper that explains details about the situation that happens in daily life of users but the different of diary is good for a single user and it more personal. However, the basic manual diary is using paper or book and need to always carry by users at hand and also requires time to use immediately.

Voice is the sound uttered through the mouth of living creatures especially of human beings in speaking, shouting or singing. In this project, voice is the sound that record by using the application of electronic system device suitable for diary. It is a way of keeping the copy of information that required by user based on setting the time, date or location. Then, the diary web – based application will follow directly on the direction or instruction for the information for save the message on a computer server or any storage that can easily retrieved by user. This allows the user for browse their daily activities or marks their future plan activities accordingly on the diary recorder web – based application.

The message directly saved to local host of database system because it will introduce the flexibility of diary information and presented different features such as by year, month or day. Plus, the diary web – based application is secured by the password authentication for ensures the data of user are not applied by another user where user need to sign up for the first time using the application then in the next usage, user just need to log in use the username and password that have being created before. The application is also provide new record and retains copies of diary for the past years even the diary message are created in same day, month or year because the database system will be automatically sort the message based on date creation.

While diary web – based application is useful, the most important advantage of an electronic application as voice recorder rather than manual diary that is its ability to retrieve the message immediately by using the searching tool element. User will access and update this application over a computer network and checking freely time based on the calendar provided. Moreover, new features added give opportunity to user for upload picture or video in the same time during recording a diary if they want to make the data information more valuable for being remembered in future. The system application will allow user to upload pictures or videos using two methods which are upload from file in local host and second method is by upload using an URL link of the picture or video. Then, the picture or video will be listed in the application list.

"The diary authors' thought, the internal and external events, observations and experiences, are a medium to provide a record of an ever – changing present" (Allport, 1942). *"Some diaries incorporate non – textual accessories to a life story"* (Plummer, 2001).

1.2 Problem statement

Manual diary requires time for record the information and always need to carry at the hand

Manual diary nowadays has difficulty when user needs to retrieve the message immediately. It requires user to search page by page to find the message and manage it effectively. Based on this issue, user needs enough time for solve the problem. On other hand, manual diary is use in hard copy material that needs to carry by user every time. It is also give constraint to user when want to record the message accordingly because sometime user is rush and forget to bring the diary together. Therefore, user will faced a difficulty on record the information or message on time.

The challenge of this project is to create a system which integrates application of audio recorder into diary web – based application where it can record the daily routines of users. It is unobtrusive and useful to detecting the current messages like activities which can be annotated and completed by the user. Manual diary currently is not really fulfill on physical action and not upgraded to latest requirement in recording the information. It is because, nowadays, users and technology system are very closes and need to each other. Then, to fulfill this goal, this project created and enhance for new features in web – based application for diary based on the existing application where it will enhance the functionality and modified based on technology like existing storage where it can thoroughly formatted in suitable audio storage. The system has to be easy and fast to use because it will show how the application is more valuable to be commerce in information technology area in future. It also can be actively and useful to users.

1.3 Objective

1.3.1 Analysis

To analyze the current application that available for diary and recognize the new features that required to improving and enhancing based on the comparison of time taken between diary web – based application and manual diary approach. It will be suitable to use as lesson learn.

1.3.2 Design

To design new features of diary web – based application based on the existing that can potentially improve the diary usage, save time, space and easily use immediately. It will simplify the complex structure of

recording lists by using the search engine tools and automatically sorted by date.

1.3.3 Develop

To develop and add new features from the existing application for diary through web – based application for more effective, valuable and useful to user. A diary web – based application can protect the personal information of user's efficiency.

1.4 Scope of study

The goal of this project is to record the message used in a diary web – based application for focused on find a compromise rather than relying on classification results. It is prompting the user using the application as the current activity in undetermined situations. Then, users not missed out or not leave any information that happens today or in future because it will resolve by using this diary we – based application.

Time is very important and it can be utilized in a very efficient way by maintaining a diary system. The efficiency on planning of time is one of the most important activities involved in completing daily task or coming activities.

Diary is one of the major resources within the management of personally where it can be do at any given time. The diary can be maintained manually but it more effective if manage electronically. Most people nowadays think the technology application is relevant in manage tasks because it more simplify and sometime give better output rather than using manual technique. This web – based

application is better than manual diary where it will be helpful on record, playback, maintain the task with the situation using image or video and the most important thing it will be secured by data encryption.

The scope of this project is on diary recorder where to assist the user in record the information that will sort automatically based on the priority of date. The technologies network like local host for personal computer has been chosen as platform because it can always together with user and applicable on diary. With the help of the recording activities, user can revive past events and is able to annotate it. This leads to a new kind of more personal and more detail from manual diary. The system is created to more private and trustworthy way to store diary entries that recorded by user.

This project also analyze the feasibility of technology in recorded the information using diary and to detect daily activities like working tasks. Regarding on the existing application that available for diary, it is not really convenience to record personal information because it can be shared and look by others. The features also faced difficulty on retrieve the message immediately.

The aim of this project was to understand and designing about diary that previously it writes using paper and user can check on it but sometime the message not reaches to the situation and task complete as per recording because of wrongly information. The message can be recorded and retrieved accordingly by user if the problem resolved with tools that useful for users. It is because the functional tools use in this diary web – based application is also impact on society and social change that particularly interest to find out how users felt about diary and the difference between manual and diary in web – based application.

1.5 Significance and feasibility of the project

Voice for diary that is record can be maintained on a personal computer. The main objectives give a number of advantages over manual diary as per statement below.

- Highlighting potential of priority between tasks or activities
- Multiple access is available
- Database compatibility

This aspect of diary has potential to be a benefit in unlimited recording message. On other hand, this familiarity may benefit to users because users are likely familiar with the basic form of a diary and the concept of recording that can narrative repeatedly over time.

Depending on the aims and objectives of the project research, a diary can be designed in many different ways to obtain data from users but the ways users respond to these styles of recording will vary. *“One of the diary methods is that information about events is captured at or close to the time of occurrence”* (Wheeler & Reis, 1991). Therefore, diary web application project have potential to constitute business information technology in data collection.

CHAPTER 2

LITERATURE REVIEW

This chapter mainly discusses on general idea of the project. Several keywords are discussed with problems addressed in the previous chapter until the idea of the proposed solution.

2.1 Pattern of behaviors

“Diary keeping is another ethnographically inspired method that provides a self – reported record of user behavior over a period of time” (Whyte, 1984). Diary is allowed in identify patterns of behavior that would not be recognizable through short term observation. However it will require careful design when using this diary web – based application where users can visualize using pictures and videos accordingly.

“Generalizing the concept of diaries will show the originated behavior of people when look into the traditions of diary concept” (Andreotti & Costa, 1996). Reading and writing on a paper for diary may be a difficult to process by users that don’t have the time to manually write their current or coming tasks or activities. Therefore, this diary web – based application of in electronic forms or

audio record diary could be used to solve the problem regarding on the existing application that available for diary concept.

Diary web – based application is a method that is more easily in capturing the events and observations created by users. *“Diary methods also have potential for research related to temporal dynamics and time – based on the phenomena of trend” (Bolger et al., 2003).* This diary web – based application project is created based on time and the pre testing on existing diary methods where is to keep diary and analyze the data immediately. Potential weaknesses of existing diary project application that is available in technology market are derived from the tools and instruments that are used for recording the data. *“The act of keeping a diary may have some therapeutic effect itself but the degree to which this could affect data collected is not well understood” (Bolger et al., 2003).*

Professor Francesca Gino, Harvard Business School said, *“When people have the opportunity to reflect, experience a boost in self – efficiency. That is, they more confident that they can achieve things. As a result, they put more effort into what they’re doing and what they learn.”* The reason of this project developed because the brain needs extra time to reflect the things that need to gone through during the day. Psychology research shown that in writing about life experiences has many positive effects, including increasing students’ grade – point averages, re – employment after losing a job and also can improve memory. The successful experience made by users is realized this daily routine could be easily implemented across other industries to improve performance.

In response to this project on the designed is based on human behavior where finding on how users want make their lifestyle to more simple and easy to manage even happen in hard time or busy situation. Moreover, it will make more compatibility rather than existing application of diary by doing an analysis on users that have different background in getting the information correctly. *“One day we share this opinion and the next day we take a different view. Then we*

write many things into that diary and they are valid some day and some other time they are not and the conclusion drawn from it can even be totally wrong.”

Interviewee from a ‘diary’ contributor at a paper mill (Auramaki et al., 2003)

This project analyzes the results from a survey given to various levels of employees at Country Garden Danga Bay, Johor Bahru, Johor and employees in various private sectors. A survey to 100 responses has proved that a significant percentage of employees experienced difficulties in implement the manual diary concepts.

CONCEPTUAL OF DIARY	MANUAL DIARY	DIARY WEB – BASED APPLICATION
Design of Functionality & Feature	Medium	High
Usability	Medium	High
Maintenance & Support	Low	High
Recording Process & checklist	Low	High
Efficiency & Effectiveness	Medium	High
Expression & Performance	Low	Medium
Availability	High	Medium
Context Observation	Low	High
Quantitative & Qualitative Data	Medium	Medium
Security of Data	Low	High

Table 2.1: Level of Complexity Requirement

According to the further interview sessions after do the testing on diary web application to 20 employees in the same company found that the difficulties reduce and give more beneficial as shown in figure 2.1. Based on survey and interview sessions show the rank of “High”, “Medium” and “Low” are the level of complexity of requirement that impact to manual and diary web – based application.

From the analysis, the lower level of complexity requirement shown that users requires for improvement from manual diary to diary web – based application are

Maintenance and Support, Recording Process and Checklist, Expression and Performance, Context Observation and Security of data. The high level in figure shown that the complexity requirement in manual diary are not really required for being implement in diary web – based application because it still apply in same concept.

2.2 Technology change

Electronic diary like record by using the voice detection is a rapid change in technology and growth and growing increasingly independent. According to **Sudweeks and Simoff (1999)**, they said that “*Stressed that a modern technology on the methodology should take into rapidly to the changing of technology, social norms and communication behavior*”. The diary web – based application that created electronically make it the rate low costs and not time consuming compared to traditional diary that using paper. By using the technical infrastructure of the connecting over time and distance, this project can become not only more efficient but potentially more informative in daily life for users.

Nowadays, not all users are really have time for write their activities or tasks using manual diary because of busy lives and not enough time even sometime facing with hard time. So, from an ethical point of view, diary method in electronic concept seemed like the best option that relatively unobtrusive as people can record information in any time and at any place. User can create their own lifestyle also in the diary application as memories based on their own creativity because it can be shared from mind with the visualization or imagination of pattern that created by users.

This project is more focus on the design application on new features and use the specific systems which capturing the information in technologies based on the analysis on existing application. Perhaps since information capture has not yet

been recognized from a design of perspective such as system modeling, it will interpret the guidance on sort of devices that might useful for users. The literature as it stands does not discuss the circumstances under which users that might want capture the information because it does not point to the kind of software, services or supporting infrastructure but it will be valuable to help people deal with captured information for daily tasks or activities as planned.

2.3 Recommendation system

“Diaries encourage participants to record thoughts and feelings as and when they occur and wherever they feel most comfortable; it therefore has the potential to compensate for short – term memory problems” (Cottrell and Schulz, 1993: 209). Therefore, the method of recorded the diary message using voices can be easily modified to enable people with varying abilities to use it because not everyone has to keep on time by written diary.

The manual diary method involves research on keeping a written diary. However, this project will excludes people who not have time to write and may not appeal to people who think visually. Regarding on **Kenten (2010)** has said that *“...it is therefore recommended for adapt the method and make it bespoke for keep daily tasks or activities accordingly”*.

The research on diary provides an interface through the interaction of subjective and objective aspects for the project where it can be openly acknowledged and brought into a productive relationship. For example the diary web – based application will records particular events, theoretical concepts or other leads to follow up that often come to mind. The previous research on existing diary application can be seen as a melting pot for all of the different ingredients of the project such as prior experience, observations, readings, ideas and a means of capturing the resulting interplay of elements. *“Allude to this function of the*

research on diary application when they refer to the researcher's notes as the vehicle for ordered creativity" (Schatzman & Strauss, 1973: 105).

"In recent years there also a parallel development that particularly in areas like teaching and nursing where it use of reflective learning on diaries application but in manual processes" (Platzer, Snelling & Blake, 1997). Although in many cases the primary focus on such diary web – based application that is the development of one's own skills and knowledge as a practitioner. It is approach can be understood as a form of action research. It can be considered as research depends on the focus of the diary web – based application where it's most interesting contribution in the focus where it can place on the observation of users in the research process by using instrument recording.

There are no rules as to how research in existing diary should be compiled the prime consideration in finding a format and style that fits with the needs of the diary project and which is found to be workable and useful by the researcher. As notes *"while researchers indicate that part of their research activities involves writing notes and keeping diaries, they do not tell using any details about how these diaries may be established and maintained" (Burgess, 1981: 75).*

The notion for visualization of diary introduces to users and show how the qualities affect into the diary web – based application for being processing. *"The images generated within this paradigm are acknowledged to be the unique result of the interaction of a certain users with a particular medium as a precise moment in space and time" (Prosser & Schwartz, 1998: 123).* Prosser and Schwartz go on to make a distinction between a visual diary and a visual record, though it is likely in practice that there will be a considerable overlap between the subjectivity of the former and the objectivity of the latter. One of the most interesting roles on a diary web application is it can play to the variety of visual and audio topics where it bringing together words recording and images.

Another important issue is the degree of the diary web- based application process that changes on the subject experience and behavior. Diary in electronic system methods is new and there is no general theory that explains when diary completion has a bad impact. Another possibility is users understanding on a particular construct become more complex or easy to reliable. The repeated exposure to a diary questionnaire may enhance encoding or retrieval of relevant information. Another potential effect is that completing the diary may constrain users conceptualization of the domain to fit with those measured in the diary. Limitation of diary designs in existing application is produce only co – relational data and such data cannot be used to establish causal mechanisms. This limitation needs to be considered in another context for the research literature.

There is other current learning approach in using the existing diary web – based application such as problem solving approach and learning by example. Regarding on **Brusilovsky (2008)**, explain existing approach to using examples in diary web application as the following.

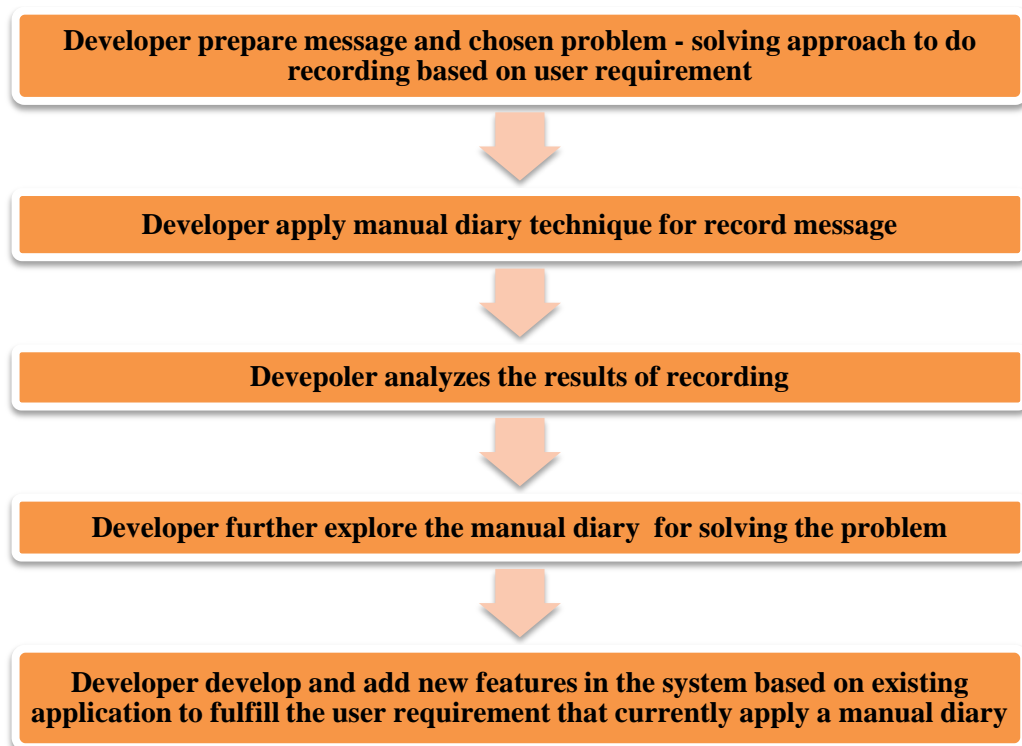


Figure 2.1: Current Approach of Diary Web Application

In the research, **Brusilovsky** discovered that this existing diary in manual approach have problem which it only works well during certain times. In addition, this message record must have about the same level of features and functionality in order to being secured. The reason behind this problem is because users can usually predict the number and the qualification of message. On other hand, this kind of learning approach is suitable to users who unable to understand the application matter clearly even the features are more advance from the previous application. *“Deeply understanding usually requires guidance of an expert”* (**Brusilovsky, 2008**).

Finally, users should consider the ethical issues involved in keeping a diary. An existing diary web – based application is considered as an open source document where it is part of value that allows a license for the users to record, testing thoughts and reflects that allow the others for reading. Based on that, the additional features in diary web- based application can increase the visibility and significance of routine which might be regarded to improve the management of life. Users can easily be using methods and are also an appropriate way to capture sensitive data that might be difficult to get with other methods.

2.4 Existing applications related to Web – based Diary Application

A diverse range of devices has been developed to address this issue which can be classified according to the nature of the device.

2.4.1 Speak – A – Message (SAM) Software Application

This software application is record the voice messages that are more to open source than text messages. It is because the voice that has been record carries so much more emotion. This application is available on

adding photos or screenshots when the voice message is running for minimum impact and it is available to be shared to other people by sends per email, social media or the cloud.



Figure 2.2: Speak – A – Message Software Application

2.4.2 SpeakPipe

This application is an application for voice diary that allows for voice recorder by creating an audio directly from a browser by using the microphone. The recording is produced locally on the computer and can be record as many times as user need but it can't arrange in proper ways. There is the option to save the recording on the SpeakPipe server and get a link to it. So, it gives difficulties to user on saving the message

accordingly because users required the link to server. If not the message just only can be record without saving. However, the application provides the methods on saving the message directly send via email or use on the web.



Figure 2.3: SpeakPipe Application

2.5 Summary

The reason to do enhancement on the manual diary to diary web – based application because of the qualification and to fulfill the requirement that required from users to be more technologically. Besides, research was carried out on existing software system for diary application to analyze the methods on

recording the message for diary by using devices. The research on existing system is summarized in table 2.2 below.

NO	TYPE OF FEATURES	DIARY WEB – BASED APPLICATION	SPEAK – A – MESSAGE	SPEAKPIPE
1	User login	Yes	No	No
2	User sign up	Yes	No	No
3	Recording tools	Yes	Yes	Yes
4	Setting application	No	Yes	No
5	Recording list	Yes	Yes	No
6	Add, delete & edit functions	Yes	Yes	Yes
7	Playback message function	Yes	No	Yes
8	Search engine function	Yes	No	No
9	Sorted function	Yes	No	No
10	Calendar function	No	No	No
11	Selection of location	Yes	Yes	No
12	Image upload function	Yes	Yes	No
13	Video upload function	Yes	Yes	No
14	Upload function from file server	Yes	Yes	No
15	Upload function from URL link	Yes	No	No
16	Image list	Yes	No	No
17	Video list	Yes	No	No
18	Playback video function	Yes	Yes	No
19	Limitation of recorder	No	Yes	Yes
20	Availability with / without network	No	No	No
21	Profile setting	Yes	Yes	No
22	Change password setting	Yes	No	No
23	Log out function	Yes	No	No
24	Applicable in PC	Yes	Yes	Yes
25	Applicable in smart phone	Yes	No	Yes

Table 2.2: Comparison on Project Application and Existing Application

“...diaries have the potential to give participants much more space for reasoning and reflection to build identity narrative” (Chaitin, 2004). At the same time, users can also develop an individual relationship with the diary and imagine the feeling as readership. So, they can decide whether they are in the mood of writing on that time because it also is being depending on the expression for writing their story later on inside the diary. A diary is a source of data given to get the ability to apply feeling as a method to grasp forms of identity and meaning flows of life. *“The diary allows researchers an insight into the*

participants' lives, an understanding about how they perceive or understand the events that surround them and provide a link between the public and the private" (Plummer, 2001).

Keeping a diary requires a time commitment on the part of the users and willingness to regularly complete the diary and follow any guidelines. *"There is an assumption that users have the skills necessary to complete the method and can overcome illiteracy via another person writing the entries, but the diary as a personal and private space can be challenged"* (Meth, 2003). Literacy problems can be overcome via audio or visual diary. Although it is not limited to diary, the validity of the entries and the impact of knowing that the diary will be read by users is an issue as well as the presence or the absence of content, which can be remedied by a diary web – based application.

Although diary methods as per existing application have important advantages over the traditional survey designs, there are some notable disadvantages as well. Some of these limitations can be minimized whereas some limitations are unavoidable. *"One practical concern is that most of the diary studies require a detailed training session with the users to ensure that they understand the protocol"* (Reis & Gable, 2000). It is important that the users are committed and dedicated to the participation to obtain reliable and valid data when apply diary.

CHAPTER 3

METHODOLOGY / PROJECT WORK

The project starts by discussing on the design of diary web – based application of existing application that available where the system will be function using web – based and compatibility in local server of the personal computer. Next step is by draft the design of new features that found to the system modeling and program the source code that related with the audio recorder and database of storage for diary recorded message. In addition, the diary web – based application will active with network connection where the storage of the file limits is up to 20 MB. It is especially useful when user are uploading the picture or video during recorded the message. So that user were not worried if facing problem for remind the past memory because this new features on the web – based application give the simple usage and helpful to record, playback and visually within unlimited time.

The approach adopted in this project is activities or tasks that recorded by user in the diary where it related with communication activities between people and their daily life. Message that record in diary is designed to capture information on the origin and destination of the activities, times, moods expression and it will also show the reflection internal and external behavior of users. Regarding to **Kenyon (2004a)**, “...*those activity diaries which focus on communication activities are often referred to as communication diaries*”.

The small scale in predominant qualitative on this project designed to examine how the interactions of Information Communication Technologies (ICT) like diary recorder web – based application will work cumulatively across multiple sectors to influence the daily activities or tasks that have been recorded, experiences with time for privilege. The diary were designed to record when, where, with whom and how people communicate with the electronically. It was considered to be a method of capturing data information on users’ tasks or activities and communication patterns. It could be used to augment the information gained from the planning of activities. *“It was decided to use self – completion activity diaries in this way, as they are argued to be a valid method of gathering data concerning events that are difficult to accurately recall” (Corti, 1993).*

In contrast to the presented related on works with other types of devices, diary web – based application system that currently available is using the voice recorder through sensors of audio application. It relied only on the source code and improves from existing web – based application of an ordinary storage for computer server or network server communication. The activities cover typical more diaries like events of a day and are not limited to a specific area. The system aims on providing suggestions and creates a frame of the day which will support the user in daily tasks for collecting annotated activity data information from any sources and apply classification methods working for this diary web – based application for ensure that it will automatic recognize of the current situation where it applicable on uploading the picture or video that required from user personally. It also will be editable for ensure user comfortable and feel valuable when using diary web – based application into their life.

For existing software development in diary concept, it is an essential to plan well the project by gathering the requirement before designing and implementing the system application. Different methodologies have been created to cater different needs of different project in a specific duration of time. Thus, this chapter will elaborate more about below specification.

- Choosing System Development Methodology
- Planning, Analysis, Design and Implementation phases
- Project Activities
- Tools Used

This project used a diary methodology which was a modification from previous diary application methods that planned to minimize the time for users when recording their tasks or daily activities. Instead of asking users to keep written notes on their activities, it is better for user to upload a photo or video of the events that were interested in as memory for the diary details. It is aim to broaden the understanding and what meaning of the information that being capture rather than to produce a set of data. Based on the interviews with people that work in office or site location, it was emphasized that they should use the voice recorder diary as a daily tool rather than as a conventional note. That why this web – based application are more relevant to be practices because people were told to record their task immediately whenever they actually capture some information in the course of their day or whenever they would have to record the information.

3.1 Choosing System Development Methodology

The chosen model to be implemented in this project is prototype model which the analysis, design and implementation which will be conducted concurrently until the completion. This methodology is usually used when the process is likely to be changed as the project proceeds or when the stakeholder has little idea of what system to be built based on the existing application. The last prototype will then be called the system. Prototyping development needs only initial basic analysis and design. Thus there is a possibility to revise the initial design decision to be improve and will not creating from the starting point of the application. As for the advantage of using this model is it can deliver system quickly to users though it not exactly meeting the requirements.

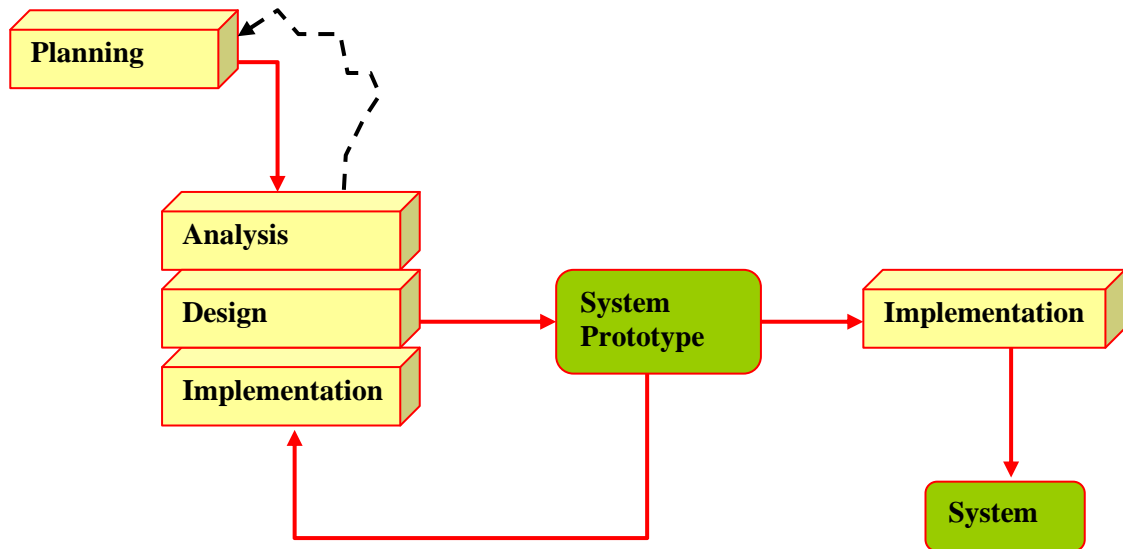


Figure 3.1: The Prototyping Model

3.2 The Phases

The processes are divided into four stages where it will be thoroughly followed through.

3.2.1 Planning

For planning stage, based on the problem statements of developing this project, conduct further research and data collection are required to support the reasons why this project should be implemented in order to solve the problem stated based on the availability of existing application. The planning activities from this stage used as the baseline to monitor the project progress stage by stage. The submission of project title with the endorsement of supervisor took place in week 2 during Final Year Project (FYP) 1 semester. To ensure that tasks involves are correctly assigned, a Gantt chart is developed to make sure enough time is allocated for

specific task and completed the project according to the time projected. Gantt chart is attached in the appendix 1.

Research methodology uses in this phase are archiving, on site survey and questionnaire and personal interview. Journals, website articles and books are widely used as secondary data collection tools to find out the solution, strengthen the knowledge about the subject of research and reliable sources for current existing system for diary application. At the same time, a semi – structured personal interview conducted to the experts and on site survey and questionnaire in diary web – based application is to support the problem statement in this dissertation. The question for expert interview is attached in appendix 2 and 3.

During this phase also all the requirements for the new features will be identified to improve and enhance the existing diary web – based application. Preliminary research was done by visiting a few companies in Johor and meets employees from private sectors. The objective of this visit is to gather information and analyze on the pattern of behaviors and knowing the current and traditional method of recording the message.

This analysis on the literature review is useful to enable comparative study on the current mechanism of adhering to diary web – based application as compared to the introduction of a new system which is diary web – based application.

The illustration by using pictures and videos will become more memorable because based on the interview sessions with people in different background, they were ask in details about how the information being secured and how it can be approve without capturing picture that can be stored as a diary in the same time. They were also asking a

number of different questions as per below after an interview session being held.

- What did them and how ideally would they have captured the information by using diary recorder web application?
- How did they or how would they have used the information they captured to be retrieved or playback if necessarily?
- Did they can share what they want to being shared with friends with the information that they have been capture but it secure?
- Did they require keeping the captured information in unlimited time frame?

3.2.2 Analysis

The purpose of data analysis is to find the solution and new features for all the problem statement of the existing project that related and available for diary web – based application. Data collection process and research mainly purposed to look for data, information and knowledge in regards to the project title. In this stage, research methodology involve are journal archiving, reviewing internet resource, books review, personal interview and sampling survey and questionnaire. Archiving, reviewing internet resource and books review methods are secondary data collection type that conducted to review the useful of information and knowledge from others point of view and research that have been done by previous researcher. All the related works has been gathered and reviewed in literature review part which aimed to get the importance and benefits of this project. On other hand, the primary data collection techniques are use such as in personal interview method, sampling survey and questionnaire to gather useful data and information directly from multiple experts and other involved party. In this research scope, the experts are

experienced lecturer from Computer Information Science department of Universiti Teknologi PETRONAS.

In this project had conducted semi – structured personal interview to identify the challenges faces by lecturer and employees in record their message using diary concept. The interviewee for the interview sessions are consists of users from different level in management that conducted on 20 users. Another conducted technique is survey and questionnaire that focuses on certain users such as lecturer, Human Resource (HR) teams, Business Planning and Development (BPD) teams, Procurement teams, Health, Safety and Environment (HSE) teams, Logistics teams, Finance teams, Risk Management teams, Technician teams, passion user, teachers, Computer & Information Science (CIS) students and Secondary school students. The conducted of sampling survey on 100 users is to get the view of knowledge from receiver's point of view. The main objective of the survey is to identify the problems faces by the users in record their message in manual diary. The survey also get the users perspective on the uses of the diary web – based application in helping them understanding complex of diary concepts. The survey questions and the interview questions are attached in the appendix 2 and 3.

From the analysis of the survey and interview techniques, the project had further analyzed on the future application framework model. The framework is carefully derived based on the secondary and primary data collection in this phase. The interview, survey and literature review analysis is taken as the basic flow of the application. Meanwhile the pattern and basic design of the framework is referred to System Analysis and Design books. In the analysis part, in this project had identified several crucial analysis and design framework which is context diagram, use case diagram and the activity diagram. The figure below show the early stages of context diagram and the use case diagram that planned for

this project. Some improvement and modification had been made to this context diagram and use case diagram in the result and discussion section.

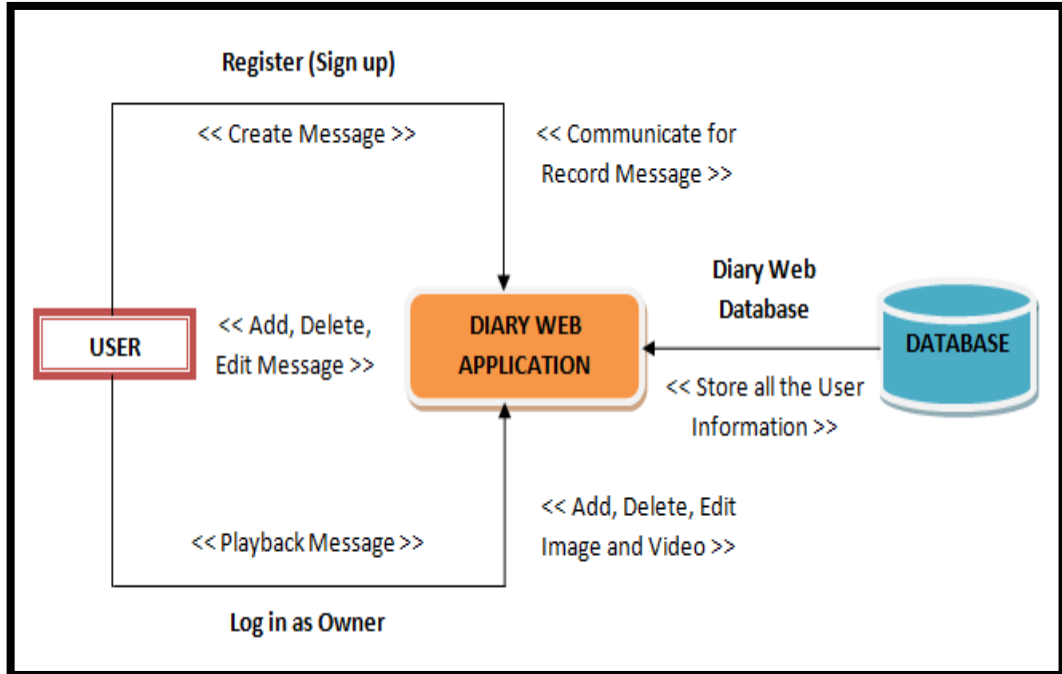


Figure 3.2: Analysis using Context Diagram

Use cases describe the functionality of the system from the user's point of view. Each use case is a different way to use the application and the completion of each use case produces a different result. In this diary web – based application, there are six differences of use cases that represented in figure 3.3 below.

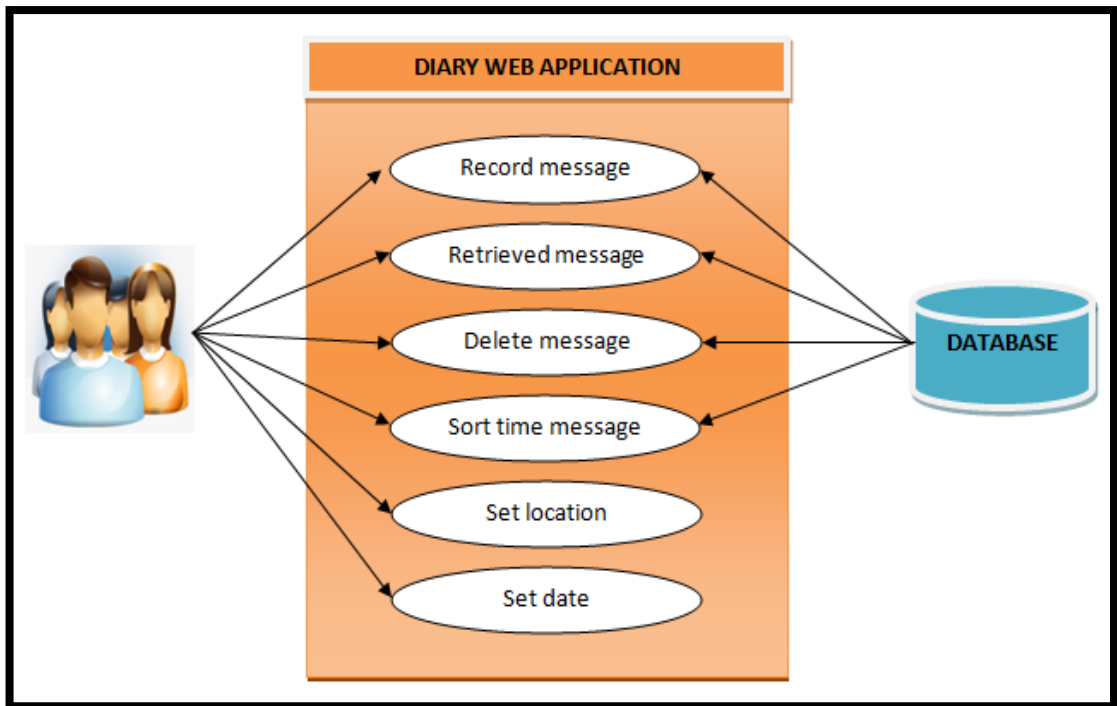


Figure 3.3: Use Case diagram

Record a message

The user select on recorder tools for starting on recording a message. If the message already being recorded, then the system will ask for fill up the name of message and the location of message being recorded. Next, the message will be saved and listed into the directory. The application will allow users to start recording the voice message until the user presses the stop button. So, the message will be recorded without unlimited time.

Retrieved a message

The user will go to the “My Recording List” option that provides the list of message that has been record by user. User can directly playback the message from the list and then presses the speaker button. It will come out with the play button. The location of message also has listed for make it easy for user to remember. If the message list contains a recorded

message, it will stop the existing message and played the retrieval message until the user presses the stop button and continue recording the existing message.

Delete a message

The user selects a message for list and then tick the check box button for delete the message accordingly. The message is permanently deleted from the storage and its memory space is recycled.

Set a date of message

Date of message can be automatically updated by system once the message has been record and save. It managed using the calendar option where user can easily search the message based on the date.

Sorted time of message

The application constantly shows the current time on the message list. The user just referred on the list or user can go to calendar and search the message accordingly.

In this project also had analyzed the principal of the good User Interface design which is minimal user input, consistency and layout. Regarding on **Dennis, Wixm & Tegarden (2010)**, said “...*the further output from this analysis is in the design phases*”.

This form of data collection also had several advantages such as communication behavior and users could freely adjust the design and structure of the diary to their needs. In any event, users are allowed to choose when and for how long they want to write the entries.

3.2.3 Design

This is the stage where the system application or software had been developing using prototyping development. According to **Bowman (2009)**, “...prototyping model is useful in the project to ponder a new solution to fix any problems and difficulties to make a few refinements before developing the final result”. Realizing the importance of Graphical User Interface (GUI) towards the application in this project that make it improvement from the existing application where it focuses on simple and interesting of the user interface for the new features to develop. This is to capture the end of user interest to use it. In this phase, this project also had prepared a context diagram and a proposed architecture in complement of early design of GUI.

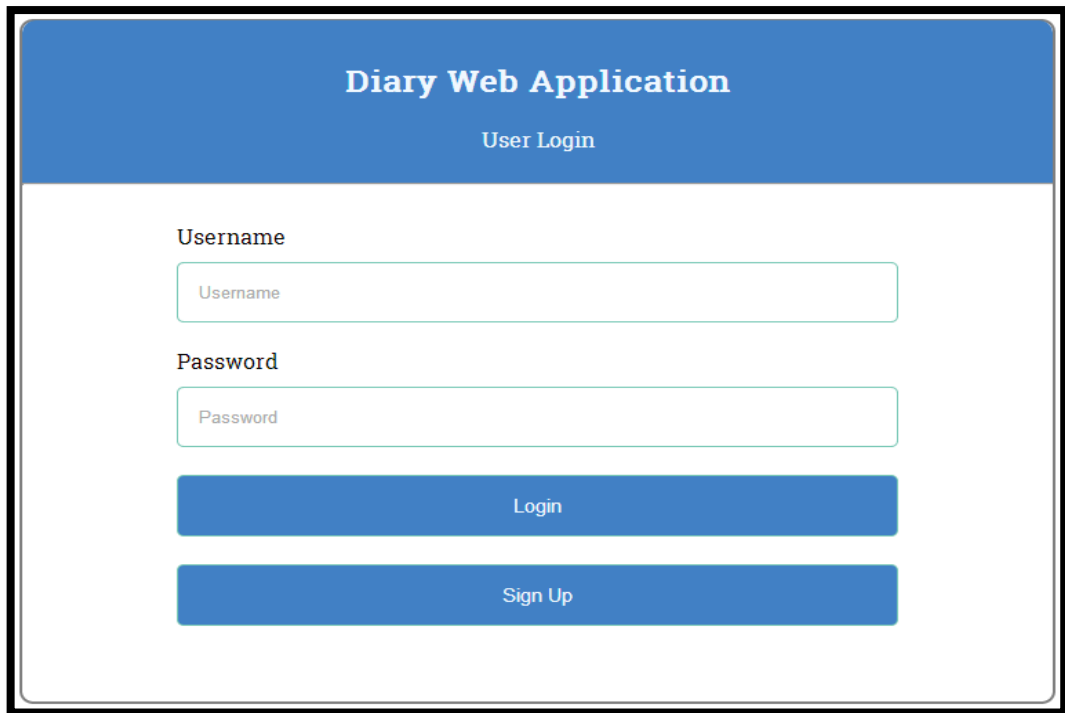
The initial prototyping phase began with a design phase where the integration of hardware, software and user interface was constructed. The sensors of audio recording used were identified and the system architecture of the diary web – based application was sketched. The activity diagram shows the flow or operation of an activity to another application in a system. Diary web – based application was designed and the corresponding sensors were identified to record the message accordingly.

Graphical User Interface

For the enhancement on the recorder application using voices will be provide to the storage location in computer. It also protected by password authentication and user ID. Another user not allows going through the details of any other information from another user's profile. Every user will sign up an account for using this application by entering the details in the form provided and it allow once user are new or using the log in for user that repeated in use the application. The details of the form that user must be fill up such as name, email address and password for security authentication and data encryption purposes.

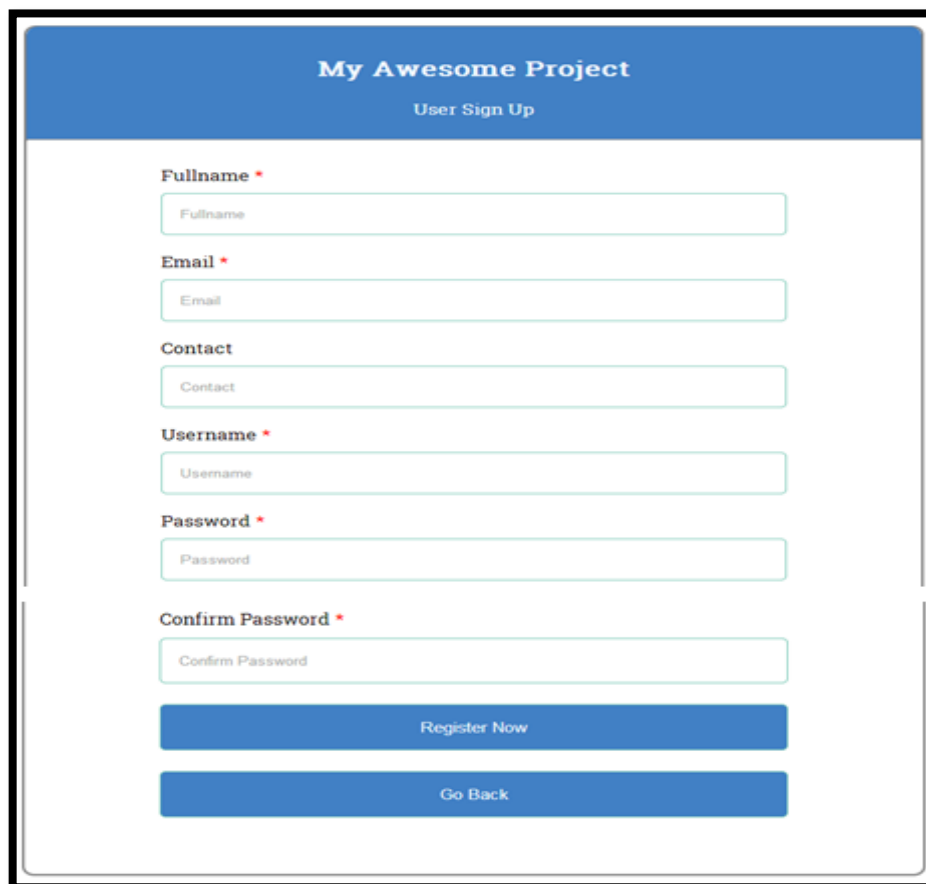
The user interface can be specified by the user when using the application. This procedure enables the users quickly interact with the system for record their tasks or activities. This is important because users are not heavily interrupted in their normal daily routines by using the system. This application will provide the durations of an activity that recorded. This short time period has been chosen so users can remember the performed activities better.

In the figure below, it shows some of the graphical user interface planned for the new features in the diary web – based application. There was much iteration mode in order to suit the system rather than existing application that is more open source.



The image shows a user login screen for a web application. At the top, there is a blue header with the text "Diary Web Application" in white, centered. Below the header, the text "User Login" is centered in a smaller font. The main content area is white and contains the following elements: a label "Username" followed by a text input field with the placeholder text "Username"; a label "Password" followed by a text input field with the placeholder text "Password"; a blue button with the text "Login" centered; and another blue button with the text "Sign Up" centered below the login button.

Figure 3.4: Design of Menu Screen for the Diary Web Application



The image shows a user sign up screen for a web application. At the top, there is a blue header with the text "My Awesome Project" in white, centered. Below the header, the text "User Sign Up" is centered in a smaller font. The main content area is white and contains the following elements: a label "Fullname *" followed by a text input field with the placeholder text "Fullname"; a label "Email *" followed by a text input field with the placeholder text "Email"; a label "Contact" followed by a text input field with the placeholder text "Contact"; a label "Username *" followed by a text input field with the placeholder text "Username"; a label "Password *" followed by a text input field with the placeholder text "Password"; a label "Confirm Password *" followed by a text input field with the placeholder text "Confirm Password"; a blue button with the text "Register Now" centered; and another blue button with the text "Go Back" centered below the register button.

Figure 3.5: Design of Registration Menu Screen for New User

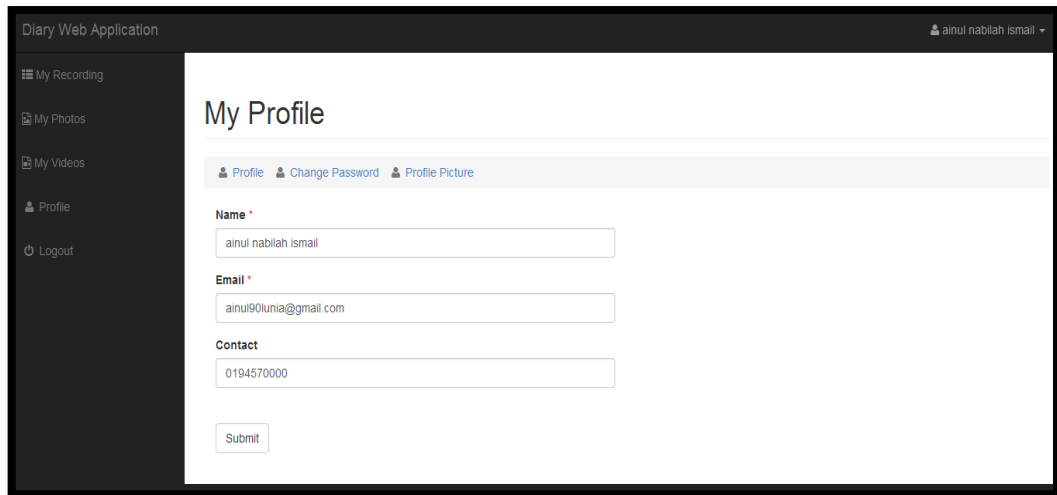


Figure 3.6: Design of Profile Screen in Application System

Framework

System architecture is the representative of conceptual or framework model that defines the overall structure or behavior of the diary web – based application with users. Figure below show the proposed system architecture for new features in this project. The applied architecture had been improved the application system and shown in the next chapter.

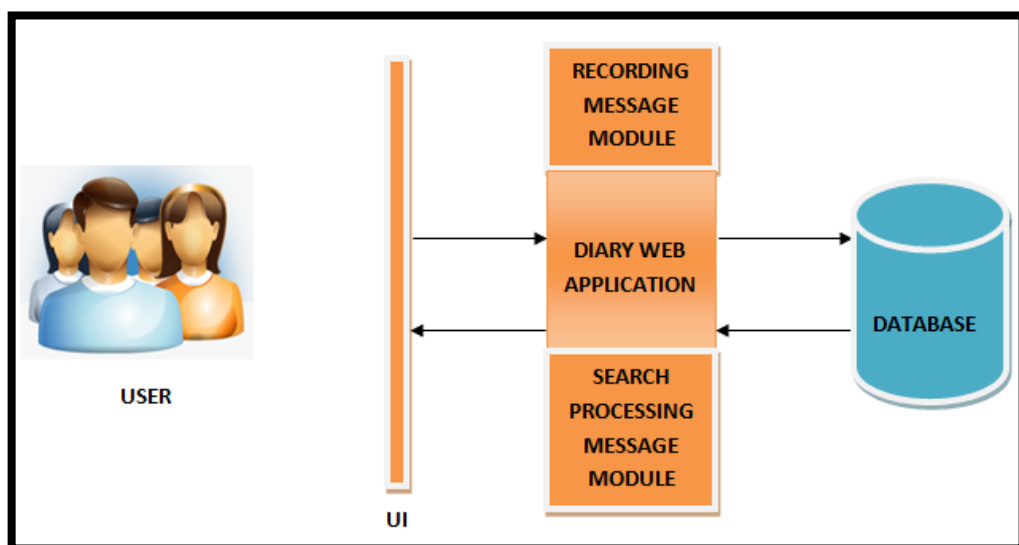


Figure 3.7: System Architecture for Diary Web Application

The proposed tools required in developing the new features in diary web application are as below table.

SOFTWARE	MINIMUM REQUIREMENT
Operating system	<ul style="list-style-type: none"> ✓ Window XP ✓ Window Server 2007
Scripting language	<ul style="list-style-type: none"> ✓ HTML ✓ CSS ✓ PHP
Programming tools	<ul style="list-style-type: none"> ✓ Notepads ✓ PHP editor ✓ Apache
Database tools	<ul style="list-style-type: none"> ✓ MySQL
Designing tools	<ul style="list-style-type: none"> ✓ Audio WAV format
Server	<ul style="list-style-type: none"> ✓ XAMPP ✓ Domain

Table 3.1: The Required Software and Hardware for Development Tools

New features that created in web – based application that designed with the user interface for diary is suitable with the functionality of web – based tools such PHP language from the existing application. It also related with database which is using MySQL software system where the information will be stored using the web browser in the domain. The programming part that create and enhance in the source code from the existing application such as audio formatted will be use in JAVA language because easy to understand, more library to refer and applicable in WAV format. Generally, HTML,CSS, PHP and JavaScript are built in different file because HTML should be used only for structuring content, CSS should be used for applying all visual styles, PHP is functional as activate the functionality that has been linked and JavaScript should be used for all interactive functionally and it also be referenced in separate files. If not, the source code will not be written into HTML and it not work properly for the system application. However, the Apache software application can't be run in the same time when users are using the Skype application because the function are related and used with the same software. By

using the Apache software, it make the system run properly and easy to converted the source code to HTML language when browse from web. PHP language is the only language that can read and work for Apache Software because Google Chrome and Internet Explorer will not understand the language.

Process development for new features in the diary web – based application which offers functions to record data and the query is regularly labels from users. It's written in JAVA and is running on the presented layout from web – based application. Activities recorded for diary can be selected and saved simply by clicking on the corresponding button. To enter more than one activity for the time frame also the user can use the functional button that provided in the application.

3.2.4 Implementation

The implementation phase involved usability testing cases in order to measure either the additional features in the project has achieved the objectives or not. This stage is important to see the results and opinions from the user to see any bugs or problems from the system. All the comments from the user will be revised to develop and improve to a better system. The system will be finalized when the user is satisfied with all their requirements and needs.

To record the responses from the audience, an interview will be conducted to the sample groups and a questionnaire will be distributed to them. The sample groups chosen for testing are the lecturer, several management teams from Country Garden Danga Bay Company and students from Computer & Information Science department of Universiti Teknologi PETRONAS (UTP).

Usability testing is conducted on the several levels of employees to evaluate the device of diary web – based application by testing it on users. It also provides a direct feedback on the drawbacks and the improvement that can be done to enhance the application. The questionnaire has been tested on several main scopes in order to ensure the success of the application such as below statements.

- The ease of use in using the diary web – based application
- The usefulness of the diary web – based application
- The user’s perception on the diary web – based application
- The reaction before, after and while using the diary web – based application

This is the final stage after conducting the usability testing and following the improvement done based on feedback received. Diary web – based application will be ready to be fully implement and used by the users.

3.3 Project activities

In this project, within the broad frame of storage for data file and the connectedness to public, it give easy on the functionality and usage to user when apply this application. The content and the programmed of source code creation will caused a high level of variation in the diary that must be included for compared with the existing device like recorder application.

The electronic diary writing was fruitful in the case of the study because the target group was highly technology literate and showed high rates of the technology usage. All of these challenges have to be taken into consideration

when constructing the modeling design and source code of programming. But if aim of the project and the contextual setting allows for the application of open and ended, solicited and working in online and offline, it will provided with most useful, vivid and illuminating material of devices.

It is crucial to relate the project activities with its objectives. In this project had planned several activities to be executed using appropriate research questions and methodology shown as the figure below.

Objective	Activities	Methods
<u>Analysis</u> To use diary web – based application approach to ease knowledge transfer from user to the database in order to increase understanding on the application matter	Identify manual technique, current application approach and its advantages and weaknesses	<ul style="list-style-type: none"> ✓ Questionnaire to user (Appendix) ✓ Interview to user (appendix) ✓ Archiving (Brusilovsky, 2008)
	Identify challenges faces by user in record the message on diary	<ul style="list-style-type: none"> ✓ Questionnaire to user (Appendix)
	Identify user perspective on the usability and relevancy of diary using web – based application process	<ul style="list-style-type: none"> ✓ Questionnaire to user (Appendix) ✓ Interview to user (appendix) ✓ Archiving (Tobin,2007)
<u>Design</u> To design new features to an application with simple user interface that provide flexibility to users to construct stories using given stories example or triggering sequence of events related to the each complex concepts in order to simplify the concepts for users reference.	Identify complex of manual diary concepts	<ul style="list-style-type: none"> ✓ Questionnaire to user (Appendix) ✓ Interview to user (appendix) ✓ Archiving (Butler & Morgan, 2007)
	Identify analogies and stories suitable for complex of manual diary concepts	<ul style="list-style-type: none"> ✓ Interview to user (appendix)
	Identify the strategy to design the flow of the tools for diary web – based application construction	<ul style="list-style-type: none"> ✓ Activity diagram
	Identify the network architecture	<ul style="list-style-type: none"> ✓ Network architecture ✓ Archiving
<u>Develop</u>	Identify the suitable platform for the application	<ul style="list-style-type: none"> ✓ Archiving

To develop and add new features in a diary web – based application as a system that trigger stories message construction on web base platform.	Identify the suitable tools for development	<ul style="list-style-type: none"> ✓ Archiving ✓ Webs site
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Table 3.2: Overall Project Activities

3.4 Criteria for Evaluation of Alternative Diary Techniques

3.4.1 Consequences for data

The different techniques are enable collection on the different types of data and provide different quality of data. Data quality will be evaluated in term of technique that the respondent and the interviewer and what possibilities we have for data control. Data quality discussed in terms of different aspects of time use is registered in the diary and how much supplemental information can be collected in the accompanying questionnaire.

3.4.2 Interview situation

The manner in which the diary exercise is structured should not conflict with a natural recall process but should rather build upon such processes. The information collected on the time use should also be meaningful for the users and give the perspective an adequate picture of how the time was spent on diary. The quality of the interview situation has important implications for data quality and it is discuss in connection to consequences for data.

3.4.3 Comparability with earlier studies

In order to achieve comparability, few changes in technique allow in the new survey. The desire for comparable results must therefore be weighed against the advantages of alternative techniques. In general require strong arguments before change a survey design which has previously been successfully employed. The more surveys that have been conducted the stronger these arguments must be lose in terms of comparisons over time. If a change in technique is desirable it is advantageous to make the changes now before a time series of the diary web – based application is established.

A diary web – based application is a consumer electronic appliance designed to record and plays back the details of diary message for file that being stored in the storage. The messages are recorded and constructed in source code program and interpreted through the web – based application. The user retrieve any data file at any moment through a store files that placed by using the button speaker for playback provided. It should be small, easy to use and suitable for any devices.

How will users retrieve information from the diary? **Schatzman and Strauss's** said that *“the idea of packaged notes is one possible way of managing the material”*. Large volumes of field diary application often require some kind of keyword or subject index for make it easily searched.

Diary researchers typically ask users to report on a variety of behaviors, feelings and attitudes over time and interested in how these processes operate in a system. **Gleason et al. (2008)** *wondered how the costs of daily support on anxiety could be reconciled with the benefits of daily support on relationship closeness. In the context of multilevel analyzes, they used a multivariate approach that has been described in details by Raudenbush and Bryk (2002).* This approach involves a treating the

different outcomes as if they were repeated measures and the data on the different outcomes are stacked together. A special provision is needed to recognize that each outcome has its own set of fixed and random effects.

Regarding on **Elliott (1997: 22)**, “*researcher – driven diaries or solicited diaries are a form of diary that individuals are requested to complete, often for research purposes which may be tailored to elicit specific information*”. The solicited diary can collect data for quantitative or qualitative analysis. “*Solicited diaries which often provide a structure for participants have also been employed to collect data on a variety of aspects of daily life including daily spending or time use*” (**Gershuny, 2002**).

“*The diary – interview method where the diary keeping period is followed by an interview asking detailed questions about the diary entries is considered to be one of the most reliable methods of obtaining information*” (**Corti, 1993: 1**). The use of a diary allows on create the entries to be explored in depth in this project and provides them with the opportunity to clarify, expand and reflect on their actions and connections, for example, similar or contrasting experiences or the regularity of the same experience. “*Diaries as well as other primary and secondary data sources can provide in contextualized material*” (**Meth, 2003**). A diary web – based application is a key to providing contextual information even an entry might be too concise or ambiguous. In these circumstances the diary web – based application provides a context as well as a deeper understanding about its significance for the individual.

CHAPTER 4

RESULT AND DISCUSSION

4.1 Introduction

In this chapter, further discussion on the outcome of the research is done including surveys and interviews sessions. All of the results collected from most of the phases in the system development process. The result helps to support the evidence towards achieving the objectives together with the discussion. This chapter will describe on several main aspects mentioned below.

4.2 Preliminary Result Analysis

This project developed new features from the existing application based on the diary concept for revealed how the users interpreted the diary genre and what they thought should be included in and counted as diary. As such, the variation between different interpretations was rather broad. Users indicated their uncertainty about what to speak and how to begin the diary. It was explicitly talked about the tasks or activities that happen in their life like appreciation for finally being able to express the opinions in the diary. Besides functioning as a way for individuals to express their situation, the diary revealed as ordinarily

strategies like weather talk among the users as well. As **Bathes (1972)**, said that, *“Talking about weather makes it possible for discourse to exist without saying anything”*.

The electronic voice recorder for diary has the advantage on the additional features rather than manual diary. Several users will used the music videos for mirroring their current emotional situations, upload pictures showing of their everyday lives activities or tasks that have been done. Roughly half of the users seemed to look at the diary as a way to express their opinion about matters of societal or common concern as well as a way to present their diary as a tool for reflecting certain emotional happenings and developments in their lives.

4.2.1 Preliminary survey analysis

Target audience for this project is lecturer, employees, secondary schools students and Information Communication Technology and Business Information System students of Universiti Teknologi PETRONAS.

Significant finding for this project that collected from the survey and questionnaire techniques from users are shown as per below statement.

- Recording message in manual writing is rated as the hardest concepts to be apply
- Existing application that available in market are not secure in keeping data and more on open application to all
- The application not compatible to android because the software are not supported by device memory and server

- Some manual and existing application unable to articulate and express the technical knowledge effectively with match of the users understanding level.

4.2.2 Preliminary interview analysis

The target audience for this preliminary interview analysis session is employees from management level of Country Garden Danga Bay Company that familiar with recording application.

Significant finding from the interview session are shown that users in low and intermediate level in technology application have difficulties to understand complex system but users in advanced in technology have immediately understand the mainly application because the complexity of the application can be explored accordingly by themselves. In this project, the priority focuses is to spend a lot of time in developing the new features of recording system that can explaining due to time constraint. Below are the averages of finding from interview analysis.

- 2/3 of the interviewees are rarely use application approach to record their message in daily.
- 1/3 interviewees having difficulties to come out with suitable stories in demonstrate the manual diary concept
- All users agree with the diary web – based application can escalate knowledge transfer process and can be uses in simplifying complex concept in technology advanced.

4.3 Analysis

Analysis modeling answers the questions of who will use the system, what the system will do and where and when it will be used. In this section of this project had finalized the additional functional modules that implemented in the application which is Diary Web – based Application. The analysis module uses in this section are context diagram, activity diagram and use case diagram.

4.3.1 Context Diagram

In the project, uses of context diagram are to demonstrate the system application and the actors that act within the application. A context diagram is a top level of data flow diagram. It generalizes the relationship on the application with the external entities. According to **Kossiakoff (2003)**, *this type of diagram pictures the system at the centre with no details of its interior structure, surrounded by all its interacting systems, environment and activities.*

Figure 4.1 shows the revised and improved version of the context diagram.

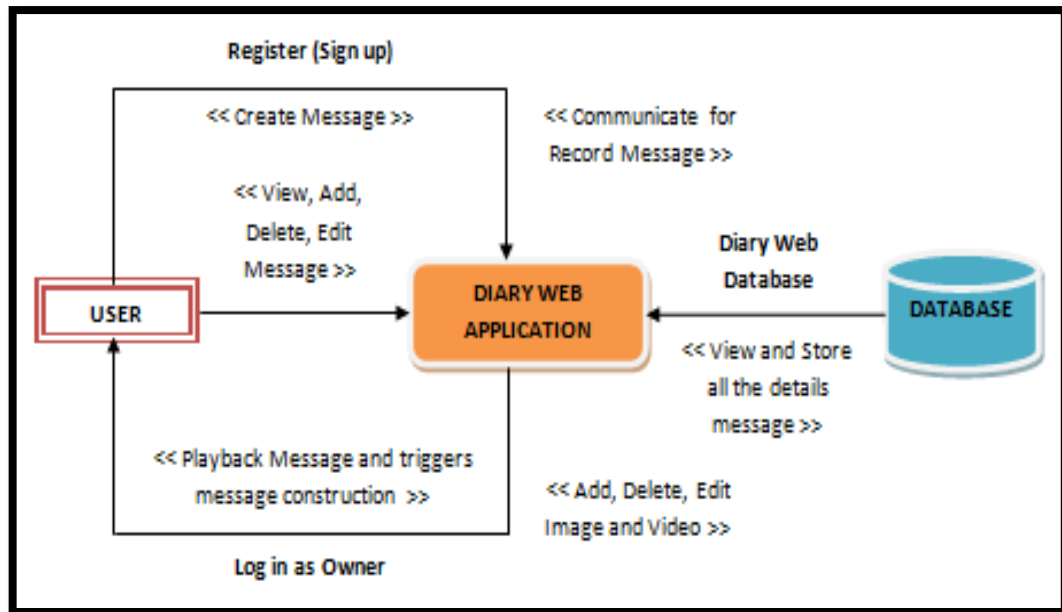


Figure 4.1: Revised Analysis using Context Diagram

The external entities in this project matter are users from management level such as lecturer, management team, university students and secondary students who are the target users of this application. Users can interact with the application by creating the message using recording tools that provided in the system module and view the existing message written on previous day, week, month or year that can be search by using the calendar application for searching purposes. It also automatically sorted based on date of message recorded that in list. On other hand, the application triggers the message constructions and idea for users by giving hints and media help where users can upload pictures or video during recording time accordingly.

4.3.2 Activity Diagram

Activity diagram is important diagram in UML to describe dynamic aspects of the system. Activity diagram is basically a flow chart to represent the flow from one activity to another activity in the application.

In this project, the activity diagram shown as per below figure is refer to the user transaction.

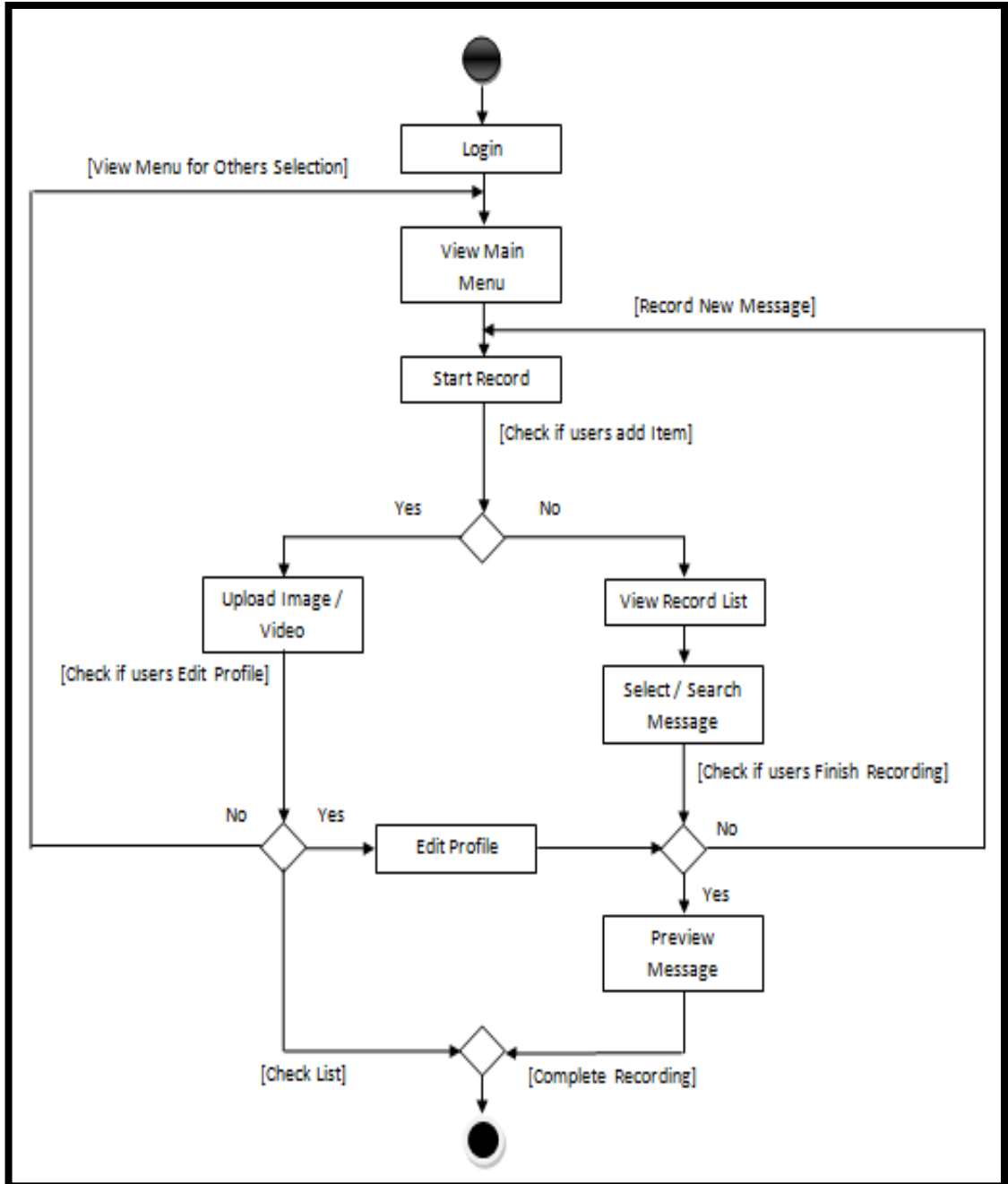


Figure 4.2: Activity Diagram

4.3.3 Use Case Diagram

Use case diagram model the functionality of the system using actor and use cases. Use case can be describes as functions or services provided by an application to its users. In this use case analysis, the actor is the users of the diary web – based application which are employees and students.

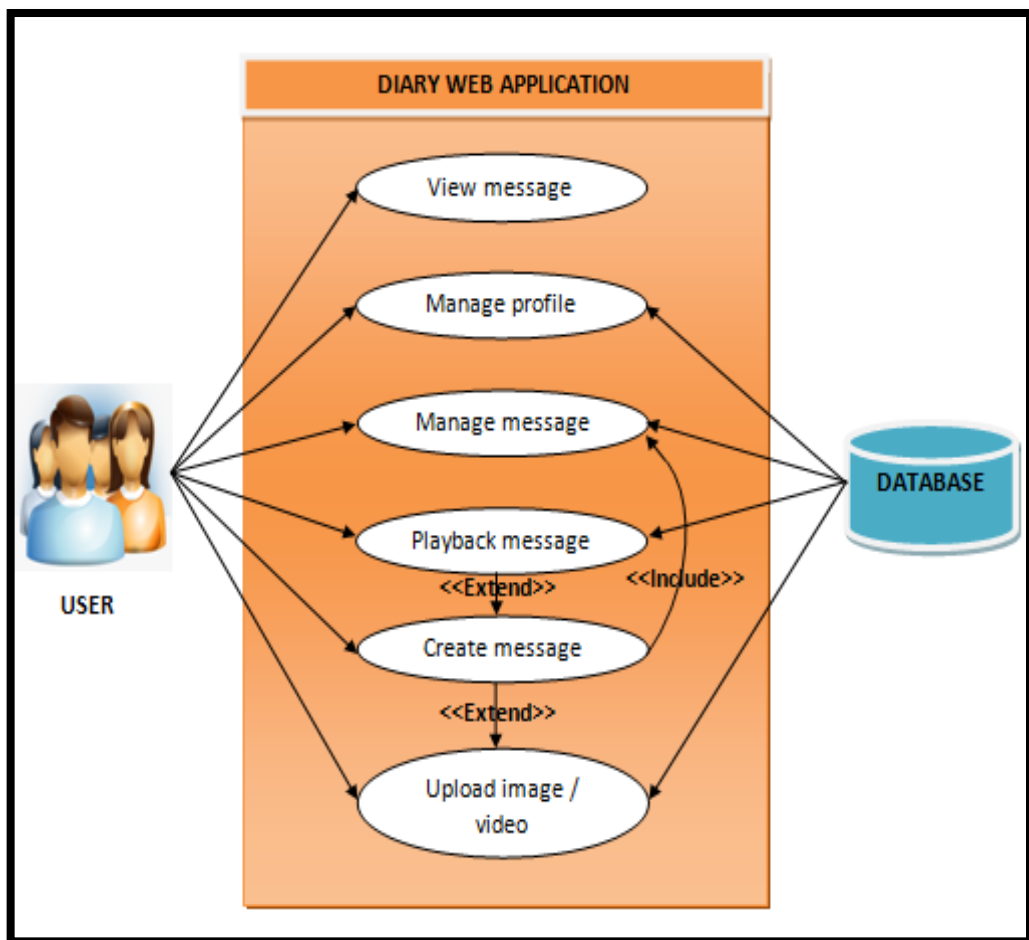


Figure 4.3: Use Case Diagram

The application allows its main users to create their own new message and view existing messages as well. This action is taken to ensure only the credible and expert can create the domain knowledge in the application. the use case “Manage Message” include three sub use cases

which are allow users to add new message, delete message and edit message. Meanwhile, the sub use case of “Create Message” is included from the “Manage Message” use case.

4.4 Design

The analysis model concentrated on the functional requirement of the new features in the web – based application and design modeling incorporates the nonfunctional requirements. The design model will explain the overall application’s operation. In this phase of the project will show the related design model including the system architecture, graphical user interface, system module and the database design.

4.4.1 System Architecture

System architecture is the representative of conceptual or framework model that defines the overall structure or behavior of the application. The figure 4.4 below shows the revised system architecture for Diary Web – Based Application from the existing application.

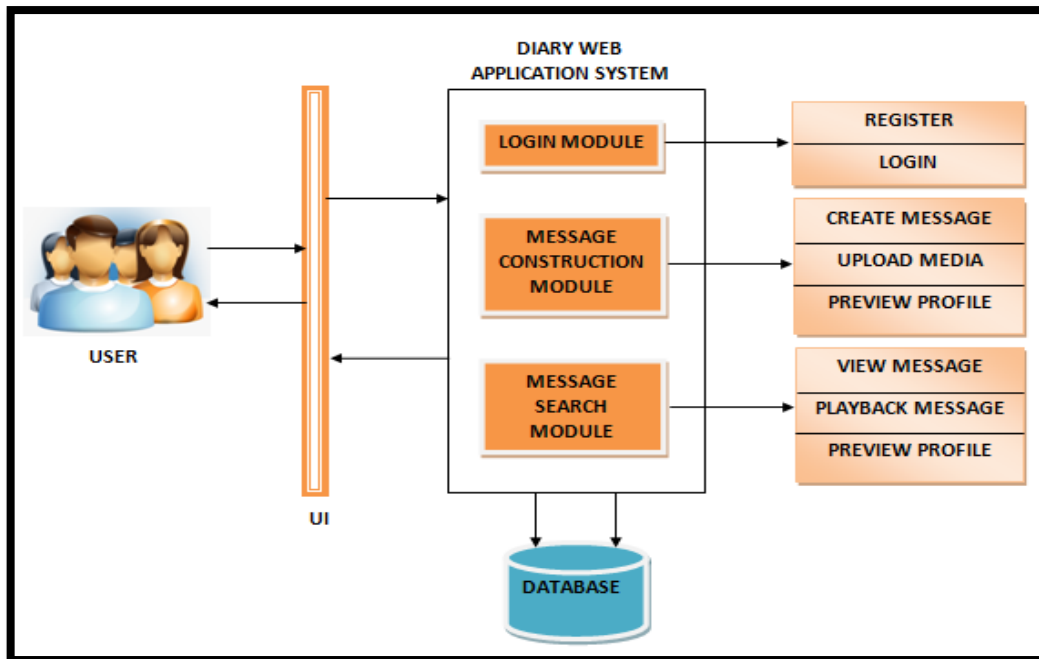


Figure 4.4: System Architecture of the Diary Web Application

In this diary web – based application, the users must interact with a User Interface (UI) to interact with the behind of features processes for the application. There are three main modules in the application which is login module, message construction module and message search module. All modules require interaction with the database to fulfill a request or command from the user. The message construction module require event or hint from the database to assist user in creating the message, upload picture or video and preview the profile of user while the message search module will require the message content that stored in database.

4.4.2 User Interface

A user interface is the part of application which users interact with. *The interface usually includes the screen displays that provide navigation through the system, the screens and forms that capture data (Dennis, Wixm & Tegarden, 2010).*

There are three fundamental parts in user interface which is navigation mechanism, input mechanism and output mechanism.

Navigation Mechanism

In this web – based application for diary, the most uses hardware device for navigating the interface is the keyboard and the pointing devices such as mouse, touchpad or trackball. In term of navigation approach, the site mostly uses menus. A menu presents user with list of selection menu option which can be selected.

Menus are easier to understand because it comprise of limited number of command are presented in organized manner. Furthermore, by clicking on item using pointing devices that matches the menu selection, it will take very little effort from the users. These benefits are highly related to the project's design objective to produce a simple and user friendly interface for user to record the message for diary. Figure below show the usage of menus in this diary web – based application project.

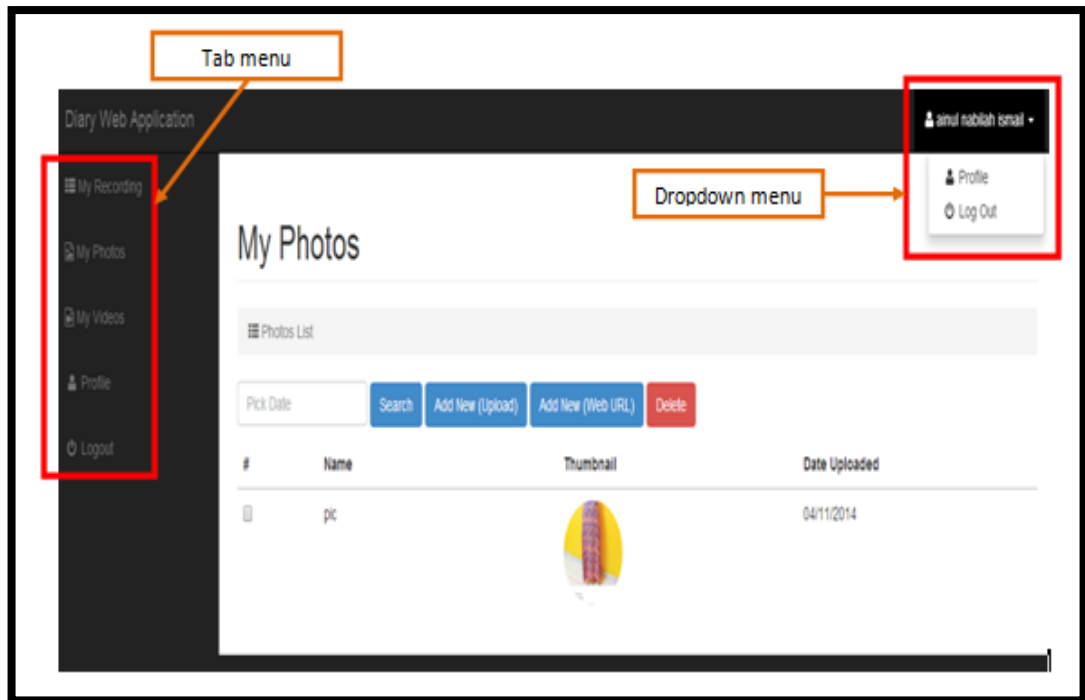


Figure 4.5: The Drop - Down and Tab Menu in Homepage

Input mechanism

Input design assists the entry of data into the application. The objective of the input mechanism is too simply and easily capture the user’s input that appropriate for the application. In this project, several type of input uses in mainly text box and selection box. Text box uses to enter users’ text like details information in “My Profile” menu. In the project case, the text box is also uses on write the keyword for searching message, image or video from the list content and insert details profile. On other hand, the selection box which is the drop down list box enables users to select a profile menu or log out application menu. Another input function is applicable for user to select the image or video that interesting to preview using check box. The figure show the page in “My Photos” or “My Videos” menu tab which mainly required user’s input.

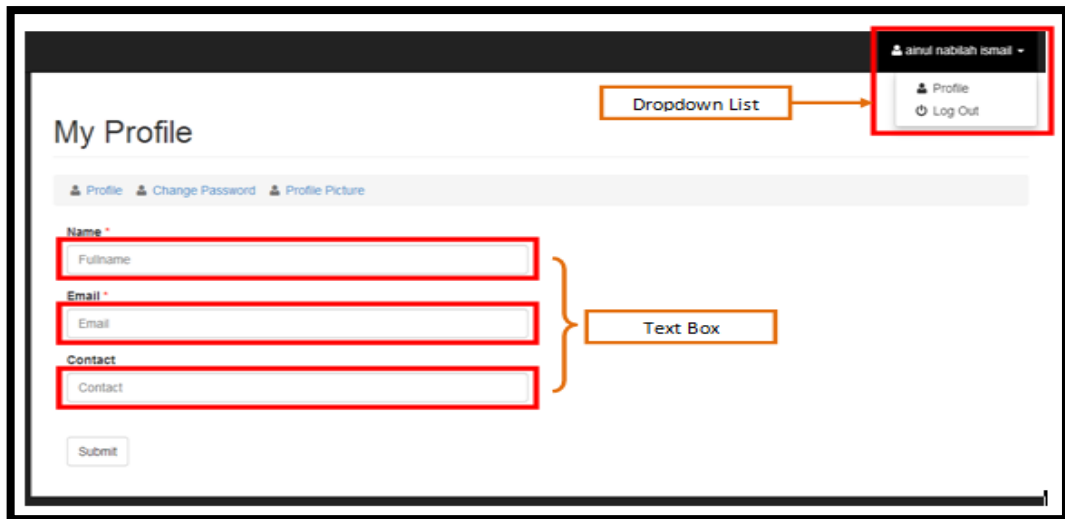


Figure 4.6: The Input Design for the Diary Web Application

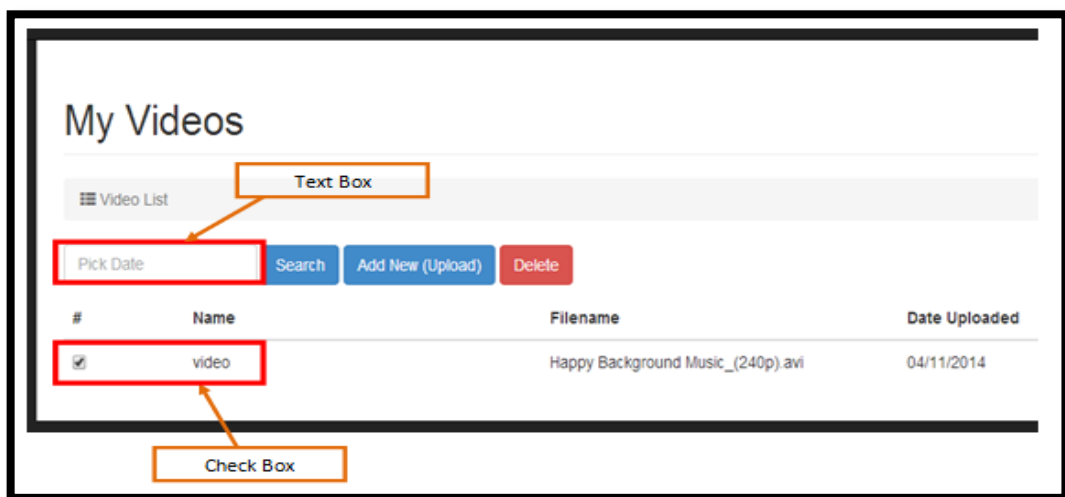


Figure 4.7: Check Box in My Videos List Menu

Output Mechanism

The output mechanism of this application is mainly the complete diary message recorded by the users in order to simplify the complex of web application concepts. In the system, users can view the output and playback the diary information through the application link for example is <http://127.0.0.1/ainul/index.php> or <http://ainul.null-pointers.net/>.

4.4.3 Module Description

In system architecture, the module is the element of the application itself. After user interact with user interface, the user input will eventually trigger the module. In Diary Web – Based Application, there are three main modules which are login module, message construction module and search message module. The main three modules are comprised by several significant subs – elements which will be discussed below.

Login Module

The login module divides into two main parts which is user's register and user's login. In order uses the web – based application, user must first register and the unique numeric identifier will be send automatically to user. Only registered users can use the recording message function while the unregistered users are not allowed entering the application until completed the registration process. On other hand, the log in module enable registered users to log into their account to record the message in the diary web- based application. The id and password for each registered users are stored in the database.

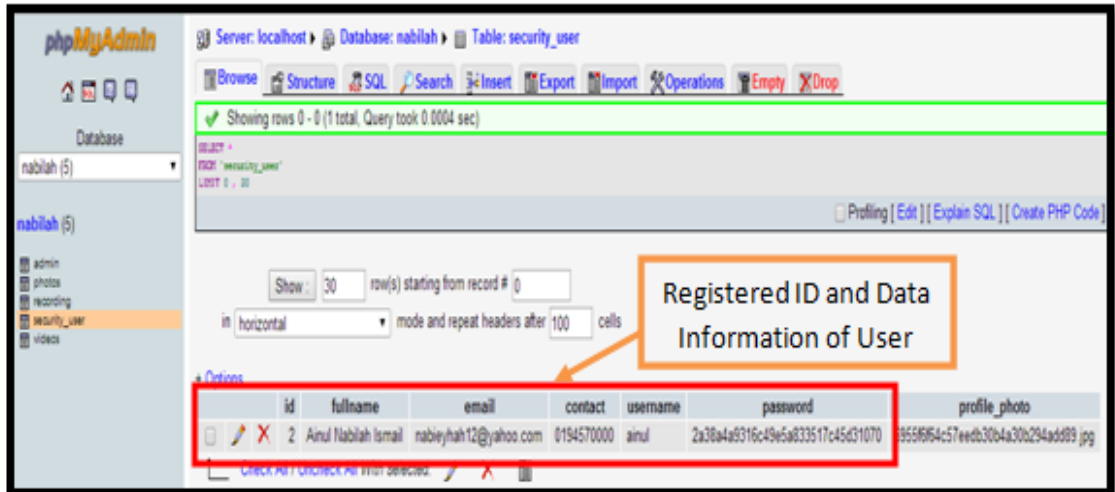


Figure 4.8: Data Encryption on Database

The table figure below shows the part of login and registration module in the real application of diary web – based.

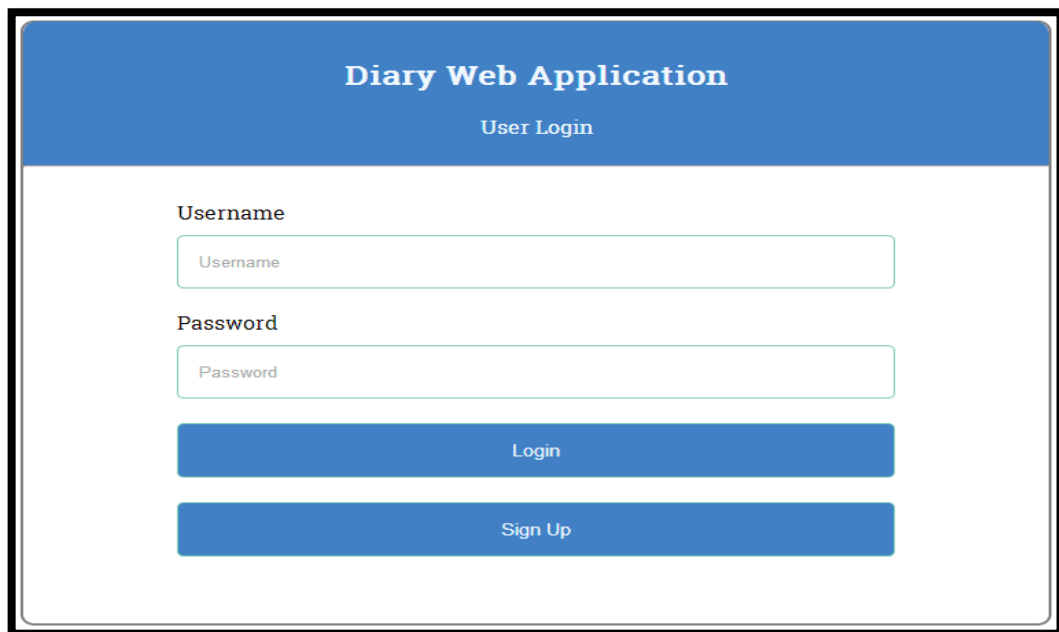


Figure 4.9: Login Module

The image shows a web registration form for 'My Awesome Project'. The form is titled 'User Sign Up' and contains the following fields and buttons:

- Fullname ***: Input field with placeholder text 'Fullname'.
- Email ***: Input field with placeholder text 'Email'.
- Contact**: Input field with placeholder text 'Contact'.
- Username ***: Input field with placeholder text 'Username'.
- Password ***: Input field with placeholder text 'Password'.
- Confirm Password ***: Input field with placeholder text 'Confirm Password'.
- Register Now**: A blue button.
- Go Back**: A blue button.

Figure 4.10: Registration Module

Message Construction Module

Message construction module allows users to create and record their own message for diary in the web – based application. However, this module only applicable for registered users only. It is mainly divided to two main subs – elements which is media uploaded and preview profile of user. In this module, user able to record the message for diary by using the recording tool that has been provided at “My Recording” menu. The media uploading function is purposely to assist users to include suitable pictures, videos or quotes in the message to make interactive for the diary itself. On other hand, the preview profile element will provide users with appropriate menus for user’s reference and triggers the details of user profile and also allow user to change password if required.

The diagram below show the related screenshot of this module applied in this project system.

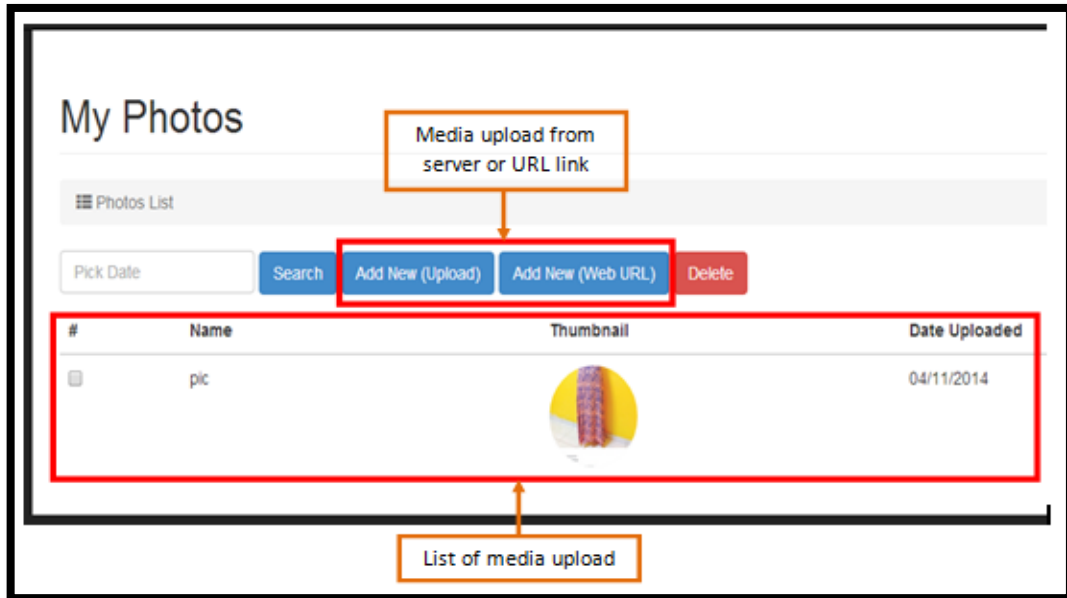


Figure 4.11: Media Upload into Diary Web Application

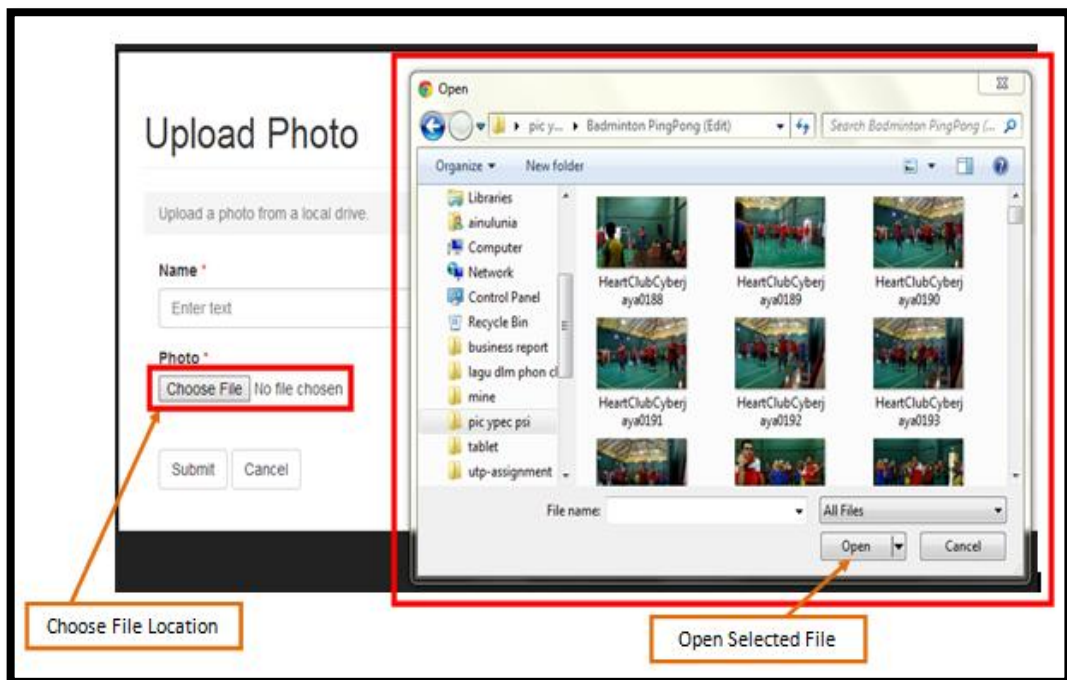


Figure 4.12: Media Upload from Local Drive

Upload Photo

Upload a photo from a local drive.

Name *

URL *

Submit Cancel **Choose File Location**

Figure 4.13: Media upload using URL link

My Profile

Tab of Subs - Menu

[Profile](#) [Change Password](#) [Profile Picture](#)

Name *

Email *

Contact

Submit

Figure 4.14: Sub - Menu Application in My Profile Menu

Message Search Module

There are three main sub – elements in message search module which is view message, playback message and manage message. This part can be also viewed by registered users only. The feature of view message in the diary web – based application allows users to browse and find the desired message to be record and at the same time can be playback. Users can browse the message by using the search engine that provided in this application and the concepts of filtered by looking at the date can easily maintain from the calendar provided. Meanwhile, the application also gives the opportunity to the users to playback the recording through the recording list. This function enables the users to share the knowledge acquired from the application.

Below diagram shown the part of this module in detailed for view, playback and manage the message from the “My Recordings” menu.



Figure 4.15: My Recording Page

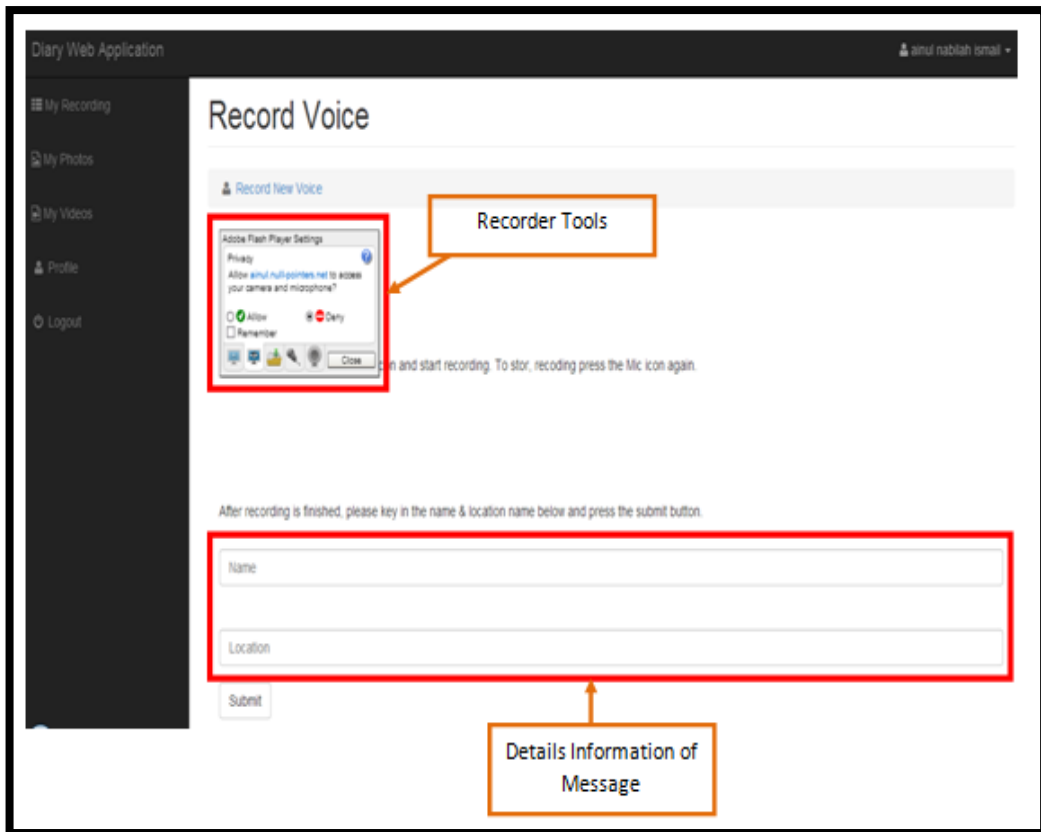


Figure 4.16: Recorder Tools Application

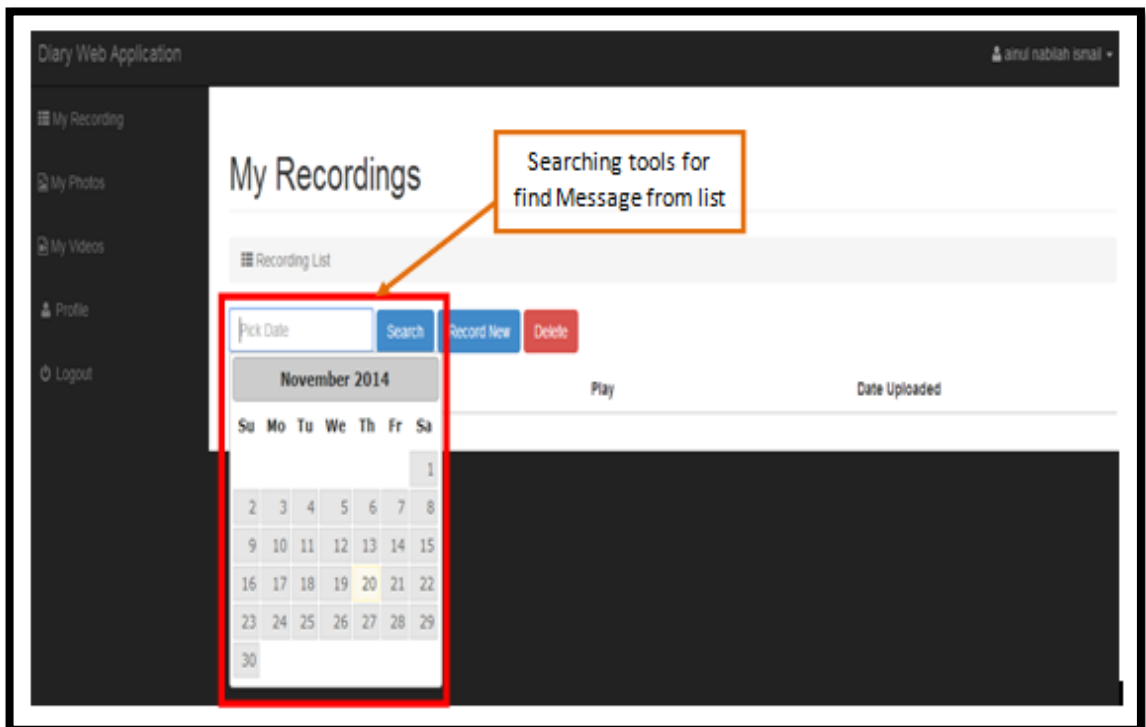


Figure 4.17: Search Engine for Message Lists

4.4.4 Database Application

In order to keep the message of the diary available after a user logs out from the application, the messages and other information such as pictures and video must be stored in a database. For this project is decided to use MySQL database software to handle all behind the scene of data handling and storage.

There will be four tables in the database which comprise in this diary web – based application as refer on below table.

User's information / security_user

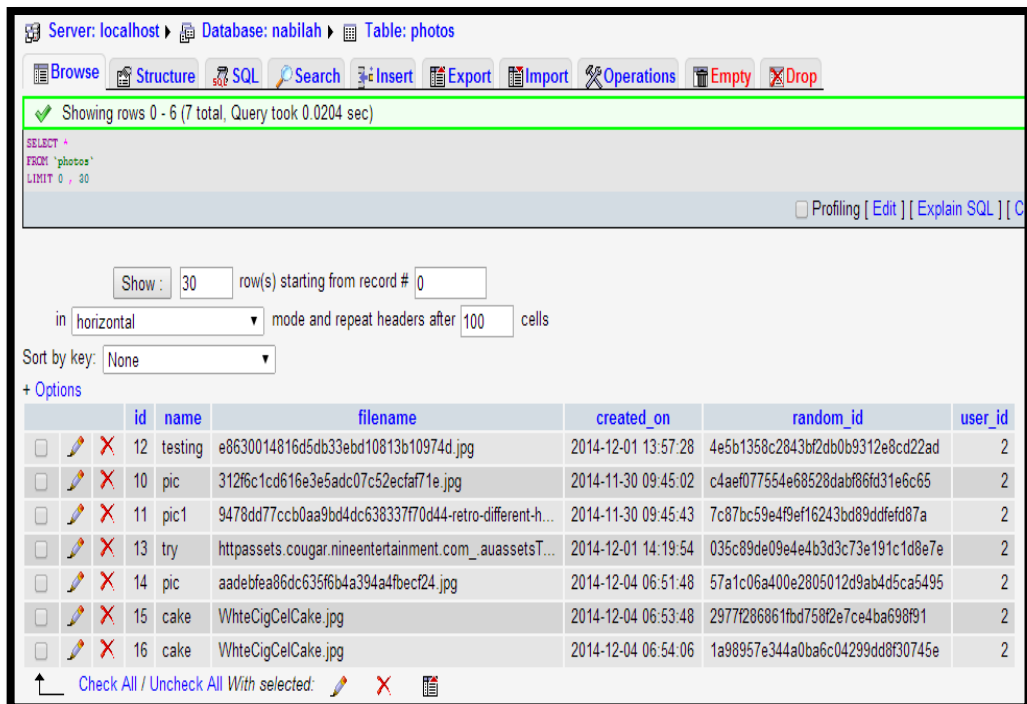
This table will be uses to store user id, password, email address and user's details that related with the profile information. In order of keeping redundant data to minimum, this project database will assign each user a unique numeric identifier during registration. The table is as below.

Field	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/> id	int(10)			No	None	auto_increment	
<input type="checkbox"/> fullname	varchar(255)	latin1_swedish_ci		Yes	NULL		
<input type="checkbox"/> email	varchar(255)	latin1_swedish_ci		Yes	NULL		
<input type="checkbox"/> contact	varchar(255)	latin1_swedish_ci		Yes	NULL		
<input type="checkbox"/> username	varchar(255)	latin1_swedish_ci		Yes	NULL		
<input type="checkbox"/> password	varchar(255)	latin1_swedish_ci		Yes	NULL		
<input type="checkbox"/> profile_photo	varchar(255)	latin1_swedish_ci		Yes	NULL		

Table 4.1: User Information Table Structure

Photo Information / photos

The column in this table will contain unique identifier of photo list, name of photo, file name, the date and time of photo being uploaded and user ID that relate as a foreign key of the table photos. The table is as per below.



Server: localhost Database: nabilah Table: photos

Showing rows 0 - 6 (7 total, Query took 0.0204 sec)

```
SELECT *
FROM 'photos'
LIMIT 0, 30
```

Show: 30 row(s) starting from record # 0

in horizontal mode and repeat headers after 100 cells

Sort by key: None

+ Options

	id	name	filename	created_on	random_id	user_id
<input type="checkbox"/>	12	testing	e8630014816d5db33ebd10813b10974d.jpg	2014-12-01 13:57:28	4e5b1358c2843bf2db0b9312e8cd22ad	2
<input type="checkbox"/>	10	pic	312f6c1cd616e3e5adc07c52ecfa71e.jpg	2014-11-30 09:45:02	c4aef077554e68528dabf86fd31e6c65	2
<input type="checkbox"/>	11	pic1	9478dd77ccb0aa9bd4dc638337f70d44-retro-different-h...	2014-11-30 09:45:43	7c87bc59e4f9ef16243bd89ddfefd87a	2
<input type="checkbox"/>	13	try	httpassets.cougar.nineentertainment.com_auassetsT...	2014-12-01 14:19:54	035c89de09e4e4b3d3c73e191c1d8e7e	2
<input type="checkbox"/>	14	pic	aadebfea86dc635f6b4a394a4fbecf24.jpg	2014-12-04 06:51:48	57a1c06a400e2805012d9ab4d5ca5495	2
<input type="checkbox"/>	15	cake	WhiteCigCelCake.jpg	2014-12-04 06:53:48	2977286861fbd758f2e7ce4ba698f91	2
<input type="checkbox"/>	16	cake	WhiteCigCelCake.jpg	2014-12-04 06:54:06	1a98957e344a0ba6c04299dd8f30745e	2

Check All / Uncheck All With selected:

Table 4.2: Overview of table Photo Information

Recording Information / Recording

The third table is to store the message of diary web – based application content that been record by user. Each message needs a unique identifier and the ID of the message it belong to the message content where it will include the position, media and color of the diary web – based application design.

Server: localhost Database: nabilah Table: recording

Showing rows 0 - 4 (5 total, Query took 0.0004 sec)

```
SELECT *
FROM `recording`
LIMIT 0, 30
```

Show: 30 row(s) starting from record # 0

in horizontal mode and repeat headers after 100 cells

Sort by key: None

	id	name	filename	created_on	random_id	user_id	location
<input type="checkbox"/>	10	song	36b944a43dc545fe628546d4d81a1f86.wav	2014-11-30 09:42:26	3d392135954fb5c990a863aea047c12a	2	home
<input type="checkbox"/>	11	punjabi song	4cac65fce0161f9fef22e7373e8b563c.wav	2014-11-30 09:55:54	eda3b7fd5c2b71392b4c5e8da2b791c4	2	kelana jaya
<input type="checkbox"/>	12	testing	709f6b6143e9c4e2d022e2d795ab7f8.wav	2014-12-01 13:06:56	cbce841491999e391ee635fccb6e78b	2	ROOM
<input type="checkbox"/>	13	try	ca933aa14454a821e9a869a0532d8bd3.wav	2014-12-01 13:08:32	907e95578fefe7cf0e970f1fc20358ea	2	ROOM
<input type="checkbox"/>	14	najmi	98b9bccca164378a95ff42eb2fe84cb2.wav	2014-12-04 06:50:33	a78a83a410caa5991b052dbe0ef87647	2	v4

Table 4.3: Overview of Recording Table

Video Information / Videos

The last table is about the details information of video that being uploaded and store in the server by user. It consists the video ID, name of video, file name, the date of video being uploaded and user id. It manages consistently in the database to make it easy for user when retrieve back the video immediately based on the date create.

Server: localhost Database: nabilah Table: videos

Showing rows 0 - 1 (2 total, Query took 0.0690 sec)

```
SELECT *
FROM `videos`
LIMIT 0, 30
```

Show: 30 row(s) starting from record # 0

in horizontal mode and repeat headers after 100 cells

Sort by key: None

	id	name	filename	created_on	random_id	user_id
<input type="checkbox"/>	12	new	A Little Love - Fiona Fung [Lyrics]_(360p).mp4	2014-12-01 13:56:45	77f9bd9de6b016a12e5484fc1deb9c76	2
<input type="checkbox"/>	11	song4u	Happy Background Music_(240p).avi	2014-11-30 09:44:17	cf8d899104c384d6e310f36e6d139bdb	2

Table 4.4: Information of Video Table

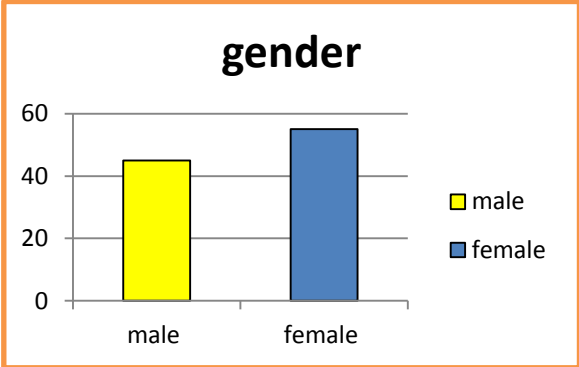
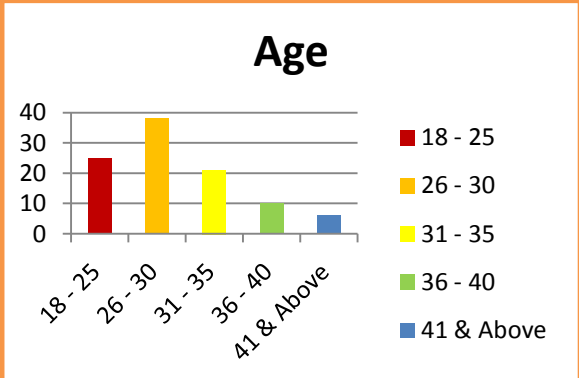
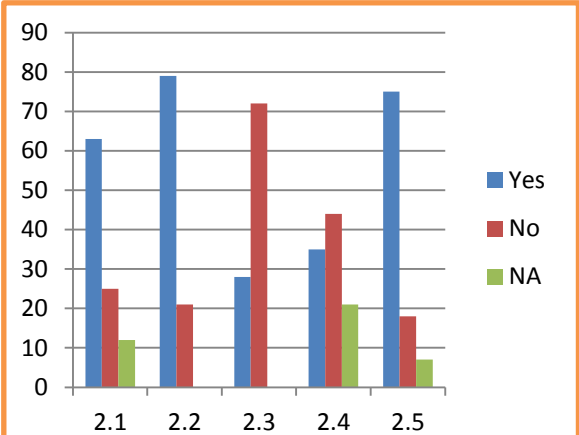
4.5 Post Survey and Testing

The testing process is one of the crucial parts in the implementation of the system. Realizing the importance of testing in this project had conduct user acceptance to the system application. There is a main group of respondents for testing which are the lecturer, management team which is several employees, students of CIS department in UTP and secondary students from various schools. The number of overall respondents is 100 which are 10 lecturers, 30 employees, 30 students from UTP and 30 students from Sekolah Menengah Kebangsaan Pekan Baru, Semerah, Batu Pahat, Johor. The post surveys for the respondents conducted by distribute the survey form. Meanwhile the user's testing is conducted individually in nature.

This study was aimed at identifying the level of acceptance of the prototype as well as evaluating the user's perception on the web – based application. Every personnel were given adequate time and explanation individually on the system and functionalities during testing. Post testing was required to answer a questionnaire on their opinion after trying out the prototype.

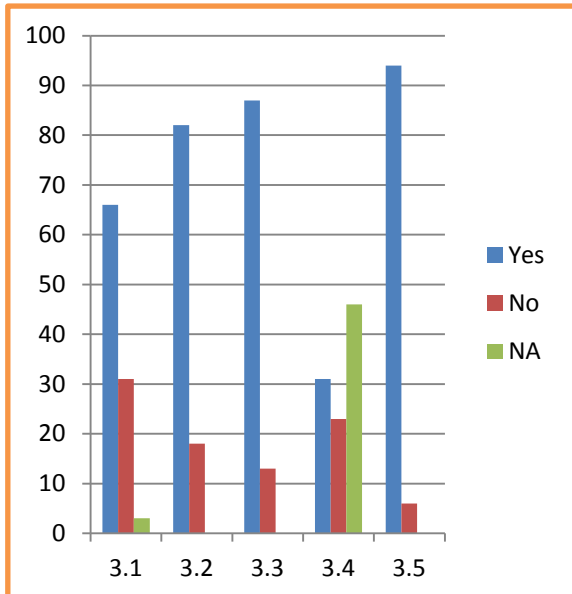
The structure of the questionnaire are divided into three sections which are the graphical user interface and its design, the usefulness and functionality of the application and the last part is recommendation and comments that requires from respondents. All respondents were given same set of questions related to their interest in order to have a detailed analysis. All the questions for this testing process are attached in the appendix section.

Analysis Graph for Pre – Survey Questionnaire

GRAPH	ANALYSIS																								
Part 1 : Demographic																									
<p>Question 1: Gender of respondents</p>  <table border="1"> <caption>Gender of respondents</caption> <thead> <tr> <th>Gender</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>male</td> <td>45</td> </tr> <tr> <td>female</td> <td>55</td> </tr> </tbody> </table>	Gender	Count	male	45	female	55	<p>From the responses shown that 45 respondents are evaluated by male and 55 responses come from female evaluation. This is shown that mostly the diary concept is applied by female rather than male.</p>																		
Gender	Count																								
male	45																								
female	55																								
<p>Question 2: Range age of respondents</p>  <table border="1"> <caption>Age of respondents</caption> <thead> <tr> <th>Age Range</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>18 - 25</td> <td>25</td> </tr> <tr> <td>26 - 30</td> <td>38</td> </tr> <tr> <td>31 - 35</td> <td>20</td> </tr> <tr> <td>36 - 40</td> <td>10</td> </tr> <tr> <td>41 & Above</td> <td>6</td> </tr> </tbody> </table>	Age Range	Count	18 - 25	25	26 - 30	38	31 - 35	20	36 - 40	10	41 & Above	6	<p>The data collection based on the range age of respondents show that 38 users in ages of 26 to 30 are mostly implementing the diary application in their life. But only 6 users from range ages 41 and above use diary for record their tasks or activities in daily. Most of them are passion users and Managers level.</p>												
Age Range	Count																								
18 - 25	25																								
26 - 30	38																								
31 - 35	20																								
36 - 40	10																								
41 & Above	6																								
Part 2 : Diary Information																									
<p>Question 2.1 : Use of diary in everyday life Question 2.2 : Diary can record message accordingly Question 2.3 : Diary in manual application is a manageable concept Question 2.4 : Diary useful on problem solving Question 2.5 : The concept of security is required in diary usage</p>																									
 <table border="1"> <caption>Diary Information Responses</caption> <thead> <tr> <th>Question</th> <th>Yes</th> <th>No</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>2.1</td> <td>63</td> <td>25</td> <td>12</td> </tr> <tr> <td>2.2</td> <td>79</td> <td>21</td> <td>0</td> </tr> <tr> <td>2.3</td> <td>28</td> <td>72</td> <td>0</td> </tr> <tr> <td>2.4</td> <td>35</td> <td>44</td> <td>21</td> </tr> <tr> <td>2.5</td> <td>75</td> <td>18</td> <td>7</td> </tr> </tbody> </table>	Question	Yes	No	NA	2.1	63	25	12	2.2	79	21	0	2.3	28	72	0	2.4	35	44	21	2.5	75	18	7	<p>From the responses, most of the users agreed that the diary web – based application is implementing in daily life and can record message accordingly. 75 users also said that diary web – based application is requires the security concept because it more on personal information.</p> <p>In other hand, 72 users disagree in managing diary in manual concept and 44 users said diary are not really solving the problem that user faced.</p>
Question	Yes	No	NA																						
2.1	63	25	12																						
2.2	79	21	0																						
2.3	28	72	0																						
2.4	35	44	21																						
2.5	75	18	7																						

Part 3 : Diary in Web – Based Application

- Question 3.1 : Diary in web based application is a manageable concept
 Question 3.2 : Diary is applicable with database
 Question 3.3 : Functionality of elements in diary web application is understandable
 Question 3.4 : Apply the theoretical and technical concept in diary web application
 Question 3.5 : Media social like picture and video is flexible in diary web application

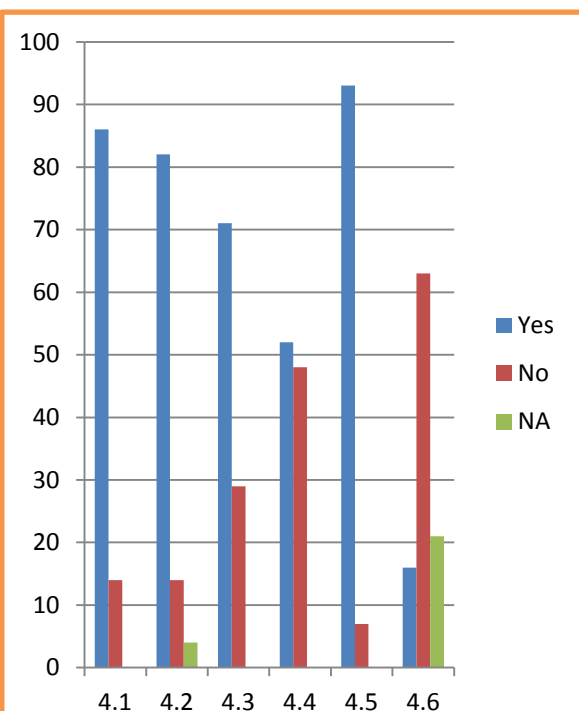


The respondents agreed that the diary can be implementing in web – based application because 66 users approved that diary is a manageable concept and applicable to the database for storing the message information. Moreover, 94 users slightly agreed that the social media is flexible to develop when using the diary web – based application.

However, 46 users are said that the diary web – based application concept is not really applying the theoretical and technical concept because users like to use diary in informal ways.

Part 4 : Diary Behavior

- Question 4.1 : Use diary web application can save time compared to manual diary
 Question 4.2 : Diary application is user friendly
 Question 4.3 : Diary application help on memorization
 Question 4.4 : Diary application meet the needs of user
 Question 4.5 : Diary can easily to carry anywhere
 Question 4.6 : Diary can improve motivation and expression



Majority users agreed that the diary can save time, user friendly, help on memorizing and the most is diary web – based application can easily to carry to anywhere rather than use in manual diary.

Therefore, 63 users are disagreed with the diary can improve motivation and expression because diary will not change the behavior of users but diary is one platform that help users on sharing and record the expression that feel by users accordingly. This is also shown that 21 users are thinking that the diary is not applicable to improve motivation and expression.

Part 5 : Technology concept													
Question 5.1 : Diary application can be commercial in communication aspect													
Question 5.2 : Diary will improve information technology													
<table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Data for Figure 4.5: Analysis of Pre – Survey</caption> <thead> <tr> <th>Response</th> <th>5.1 (%)</th> <th>5.2 (%)</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>76</td> <td>82</td> </tr> <tr> <td>No</td> <td>16</td> <td>22</td> </tr> <tr> <td>NA</td> <td>8</td> <td>6</td> </tr> </tbody> </table>	Response	5.1 (%)	5.2 (%)	Yes	76	82	No	16	22	NA	8	6	<p>Majority users are agreed that the diary web – based application is attractive in the technology concept where 76 and 82 users said that the diary can be commercial in communication aspect and also improve the information technology.</p>
Response	5.1 (%)	5.2 (%)											
Yes	76	82											
No	16	22											
NA	8	6											

Table 4.5: Analysis of Pre – Survey

Additionally, diary web – based application provides with certain advantages. For example, in a group of interest with high technology and computer literacy, an electronic voice recorder in diary tool for storing the diary entries makes data management and interpretation a great deal easier. User can freely choose when and for how long to record their entries. In addition, user can add files like pictures or videos and thus extend and relate the diary to the outer world. However, the weaknesses of voice recorder diary must not be underestimated. Here, in particular referred on ethical and technological challenges which have to be taken into consideration in every aspect like planning when using the networking methods.

The goal of this project is to create new features from the existing system which aims to assist the user in creating an electronic voice recorder diary. This will be done by trying to detect the current situation and fills in classified activities automatically. In uncertain situations the system could prompt the user and provide suggestions for the diary entry.

The interviews session has also shown that it is not possible to rely only on classification results to create a complete activity diary. Manual interactions are still needed to help out and to round up the entries of diary but a system of voice recorder

will be able to assist the user by detecting situation changes and some specialized activities. It is possible reduce the amount of interruptions in daily routine. The main argument for most people against keeping a diary in their daily life for record the tasks or activities is as the amount of time consumed by the process. Using the voice recorder diary that implement in electronic web – based system will decrease the amount of time drastically. User is able to record the diary whenever and wherever they like using the technology without having an extra book to carry around. This application will also support the user by providing suggestions or even filling the activity automatically. For the other thing the application will simplifies a later summary of the day as a rough outline that is already available by the storage applications.

The program must include some code to initialize and check the application and rearrange the executable program into the storage. It is includes initializing of the retrieval variables from the read only storage to the server. A prototype version of the target usually has a non – volatile storage with a small debugger. When the codes have been programmed, it can be executed and debugged. When the applications has been completely developed and tested, it can be recorded into a non – volatile storage. This storage can be inserted into the target and replace the debugger.

4.6 Research Design Options

As noted previously, personal accounts of events over time may include event logs, a series of images or in – depth audio or text recordings. In this diversity, diary may vary according to at least five key characteristics that should be taken into account during the research design.

4.6.1 Structured or Unstructured

Elliot (1997) reasons is “...*the people has greater control over selections and omissions, a less weight or importance of an experience will be presented as it is perceived by the diarist and the diarist can participate more independently of the researcher’s initial perspectives, assumptions and frames of reference*”. Structure may be introduced through the format and design of the diary instrument, through written and oral instructions or through the context in which the diary is written. Structure guides users to include information about subjects that are interest to the users and also reduces the burden on users in several ways. When structured diary are used, users need to make few decisions about what to include in the diary and may need to record only abbreviated amounts of information as required to respond to short answer and closed questions. More structured diary is sometimes used to gather information about defined, preconceived constructs and to more easily categorize and quantify responses. Even in diary instruments that are less structured or semi – structured. It is common to include some structured elements such as rating scales.

4.6.2 Technologies

Technological developments have expected result to continue on expand capacities for both performing diary based studies and analyzing the results. Audio, visual, mobile recording and communication technologies also show a great potential for expending the types of diary studies that can be performed, the range of information that can be relatively easily collected in natural contexts and the range of users that are able to take part in diary studies. In cases, these technologies are used in conjunction with more traditional means to record diary data. These formats have a number of advantages, including the automation of data collection,

capture of electronic text, images and other objects, the ability to track changes and simultaneous access. Online diary web – based application will also have facilitated the construction of group or organizational diary.

In some designs, it is possible to leverage technology to make the task of keeping a diary more convenient for users. Another major use of technology in diary study designs is as a means to prompt or remind users to record a diary entry. As noted earlier, it is especially important that this project using potentially intrusive signaling techniques pre – arrange acceptable time periods for sampling during the early stages of working with the users.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Introduction

The primary aim of this project was to unpack the goals behind capture activity task using the voice recorder diary in web – based application that have a framework with which to understand how capture devices may be used and thus to look for opportunities to invent new technology for daily life. The results show that users engage in a diary web – based application by provide an innovative method for diary where it can managing the user life in simple ways. There are very different kinds of design implications. It also can be illustrated this by showing how the framework can be used to inform the design of electronic voice recorder diary as well as a portable storage for data files.

5.2 Achieved Objectives

5.2.1 Analysis

This objective has been achieved through interviews and surveys where to analyze the current application that available for diary and recognize the new features that required to improving and enhancing based on the comparison of time taken between diary web – based applications and manual diary approach. It will be suitable to use as lesson learn. Besides, a survey on 100 respondents from different level of users has been carried out to seek their opinion on the major of recording diary problems faced by the users followed by the consequences of non adherence.

5.2.2 Design

This objective has been achieved through journal research on the existing devices which has been reviewed to address the similar problem. The objective to design new features of diary application based on the existing that can potentially improve the diary usage, save time and easily use immediately. It will simplify the complex structure of recording lists by using the search engine tools and automatically sorted by date and year. Therefore, this project has contributed in deciding on the best mechanism that can be used for Diary Web – Based Application.

5.2.3 Develop

Diary Web- Based Application has been develop and add new features from the existing application for diary through web – based application

for more effective, valuable and useful to user. A diary web – based application can protect the personal information of user's efficiency. It is stability, ability to implementing in users daily life and consumption of space has been chosen.

5.3 Future Work / Recommendation

The recommended of future work derived from the project planning as well as the result from the testing part. The recommended works in future are as below statement.

- To implement the web – based application to the Android application where it wider scope of study. Currently the application only covers the recording concepts by using the web – based server.
- To develop the web – based application using other platform since the current platform has its limitation.
- Add more interactive and easy media search function with minimal user's effort
- To give social media feels easily to this web – based application.

The mechanism used in Diary Web – Based Application can further be improved and developed for the usage of information system technology in a big scale. Diary Web – Based Application can be programmed to recording the diary system for the message efficiently. Therefore, this could reduce the workload of users.

Recent technological developments have changed the way participants make a diary entry or to integrate these reports with physiological measures. Uses of internet and computer devices increased in the past decade, which also increased

the comfort of users on using these formats. In most studies, users are given the access code and password to identify their data and to ensure that only one set of responses is provided. This project provides users with handheld devices such as electronic personal organizing which can be programmed with questions without connection to the internet. This approach was made feasible by **Barrett and Feldman (2001)**.

5.4 Summary

Various causes to the non – compliance of manual diary have been identified. Adding to this, the consequences of not being able to take the advantages on using the technology application at the right time has also been recognized. In order to tackle this problem, studies on the existing devices have been done. However there were advantages and disadvantages on each of those devices that giving opportunity to extract the useful features needed for the production of Diary Web – Based Application. Diary Web – Based Application is able to track the time of each message be record and followed by tracking of the users in order to dispense the right time to create the message using this application. This ensures the users consume the right recording at the right time without any constraint.

In conclusion, this project have been identified, enumerated, analyzed, designed and implemented the main elements of the voice recorder diary application by used UML as a graphical notation for the overall design. It like the future designs will contain more UML diagrams and less textual descriptions because it just to explain how the project tailor certain application patterns and programmed when build the complete design of voice recorder diary web – based application.

In whatever form, the notion of a diary is an increasingly relevant way to capture the practices and experiences of everyday life. *“The varying incarnations of*

diaries and their development over time has been summarized and reflected, who has successfully drawn together not only the use of diaries but also the analysis of the diary content” (Alaszewski, 2006).

The advantages and disadvantages with each diary type are listed in the summaries for the respective sections. In this section we shall attempt to assign priorities to the different considerations and choose which methods are most suitable to our purposes. In this project evaluation of alternative techniques primary consideration has been placed on data type and quality. The diary design which is chosen must provide with the types of information where it is interested in and must be acceptable quality. Opportunities for controlling the data are therefore very important.

Some consideration can be taken to the need for data control by having the interviewers review the diary when it is collected. On the basis of the advantages and disadvantages of recoding activities presented in this project we feel that recoding is not desirable. So, it is proposed as in our earlier survey to introduce the diary with a simple diary and with special instructions concerning activities which are most often poorly specified. Coding will be performed centrally.

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APPENDIX

Appendix 1: Gantt chart for Overall Project Flows

TASK	DURATION	WEEKS																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REQUIREMENT PLANNING PHASE																													
Identification of problem	1 WEEK	■																											
Study on the project background	1 WEEK		■																										
Define objective of the project	1 WEEK		■																										
Define scope and limitation	1 WEEK		■																										
Preliminary research	1 WEEK			■																									
Literature review	2 WEEKS			■	■																								
Selection of tools and algorithm	1 WEEK				■																								
Submission of progress report	1 WEEK					■	■																						
PROTOTYPING PHASE																													
Designing the architecture of device	3 WEEKS							■	■	■																			
Construct diagram	1 WEEK								■																				
Define the function of the elements	2 WEEK								■	■																			
Submission of interim report	5 WEEKS								■	■	■	■	■	■	■														
Project proposal defense	1 WEEK															■													
Build the application	5 WEEKS																■	■	■	■	■								
TESTING																													
Field testing	2 WEEKS																					■	■						
Improvement of the prototype	3 WEEKS																						■	■	■				
Pre - SEDEX	1 WEEK																								■				
DEPLOYMENT																													
Submission project dissertation and technical paper	1 WEEK																											■	
Viva	2 WEEKS																											■	■

- Progression work
- Submission

Appendix 2: Pre – Survey Question to Participants

SURVEY FORM				
Your feedbacks are very important to me and appreciated on you for taking time to share your views with me. Please rate Diary Web Application Project for Final Year Project purposes on the following attributes by ‘ticking’ (/) the appropriate column.				
Department :				
Position :				
Please tick (/) your choice accordingly				
1. Demographic				
1.1 Gender :	1.2 Age :			
<input type="radio"/> Male	<input type="radio"/> 18 – 25			
<input type="radio"/> Female	<input type="radio"/> 26 – 30			
	<input type="radio"/> 31 – 35			
	<input type="radio"/> 36 – 40			
	<input type="radio"/> 41 and above			
Please tick (/) your choice accordingly		YES	NO	Not Applicable
2. Diary Information				
2.1 Use of diary in everyday life				
2.2 Diary can record message accordingly				
2.3 Diary in manual application is a manageable concept				
2.4 Diary useful on problem solving				
2.5 The concept of security is required in diary usage				
3. Diary in Web Based Application				
3.1 Diary in web based application is a manageable concept				
3.2 Diary is applicable with database				
3.3 Functionality of elements in diary web application is understandable				
3.4 Apply the theoretical and technical concept in diary web application				
3.5 Media social like picture and video is flexible in diary web application				
4. Diary behavior				
4.1. Use diary web application can save time compared to manual diary				
4.2. Diary application is user friendly				
4.3. Diary application help on memorization				
4.4. Diary application meet the needs of user				
4.5. Diary can easily to carry anywhere				
4.6. Diary can improve motivation and expression				
5. Technology concept				
5.1 Diary application can be commercial in communication aspect				
5.2 Diary will improve information technology				

Appendix 3: Pre – Interview Questions to Participants

Set of Question

- 1) Are you implementing diary on your daily work or life?
- 2) Is it the use of diary application can save your time and money?
- 3) Is it the elements in the diary web application are quick and easy to use?
- 4) How long you take in recording the diary message?
- 5) How diary web application is can change your attitude and behavior in daily task or work process?
- 6) What kind or information that usually being recorded using diary application?
- 7) What are the suitable time and space to record a diary?
- 8) Why manual diary is not secure rather than using diary web application?
- 9) What is your opinion on using diary in technology application?
- 10) What are the advantages of diary concept when it changes from manual to diary application?
- 11) In your point of view, what are the disadvantages of diary usage in life?
- 12) Do you thing the diary web application can be commercial in worldwide?
- 13) Do you thing the concept of uploading picture and video can improve memorization of user?
- 14) What are the difficulties faced by the user while using the manual diary?
- 15) In your point of view, what are the features that required enhancing in diary concept?

Appendix 4: The Testing Questionnaire

Instruction for answering the question:

- Select a value from a range of 1,Strongly Disagree, to 5,Strongly Agree.

Part 1: GUI

1.This site was easy to navigate? *

1 2 3 4 5

Strongly Disagree Strongly Agree

2. The overall application design is attractive

1 2 3 4 5

Strongly Disagree Strongly Agree

3. It is easy to find my way around the site. *

1 2 3 4 5

Strongly Disagree Strongly Agree

4. The web app is user-freindly and simple

1 2 3 4 5

Strongly Disagree Strongly Agree

PART 2: User

1. Diary Web Application is useful for user daily life

1 2 3 4 5

Strongly Disagree Strongly Agree

2. It is easy to use Diary Web Application to recording concepts of story

1 2 3 4 5

Strongly Disagree Strongly Agree

3. The recording message will give benefits to the user in term of understandability of behavioral concept.

1 2 3 4 5

Strongly Disagree Strongly Agree

4. I will use Diary Web Application as a substitute to daily lesson in future

1 2 3 4 5

Strongly Disagree Strongly Agree

5. It is easy to learn new concepts by recording stories from Diary Web Application

1 2 3 4 5

Strongly Disagree Strongly Agree

6. Diary Web Application lesson by using recording application is interesting and interactive

1 2 3 4 5

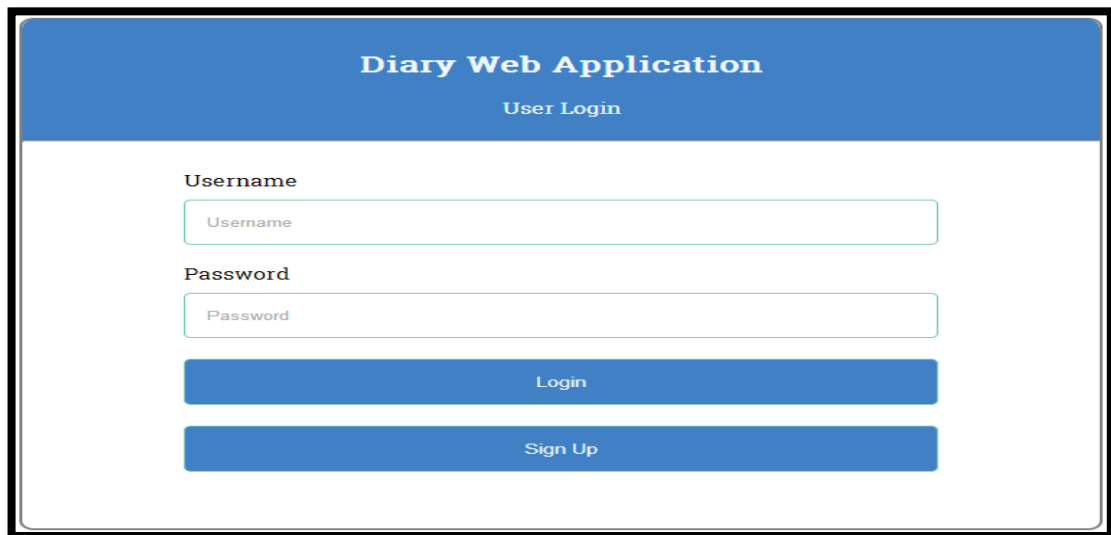
Strongly Disagree Strongly Agree

Part 3: Recommendation

1. What are your recommendations or comment on this application?

Appendix 5: Actual Prototype Screenshot

1) Home Page / User Login



The screenshot shows a user login interface for a "Diary Web Application". The page has a blue header with the title "Diary Web Application" and the subtitle "User Login". Below the header, there are two input fields: "Username" and "Password". Below the input fields, there are two blue buttons: "Login" and "Sign Up".

Diary Web Application
User Login

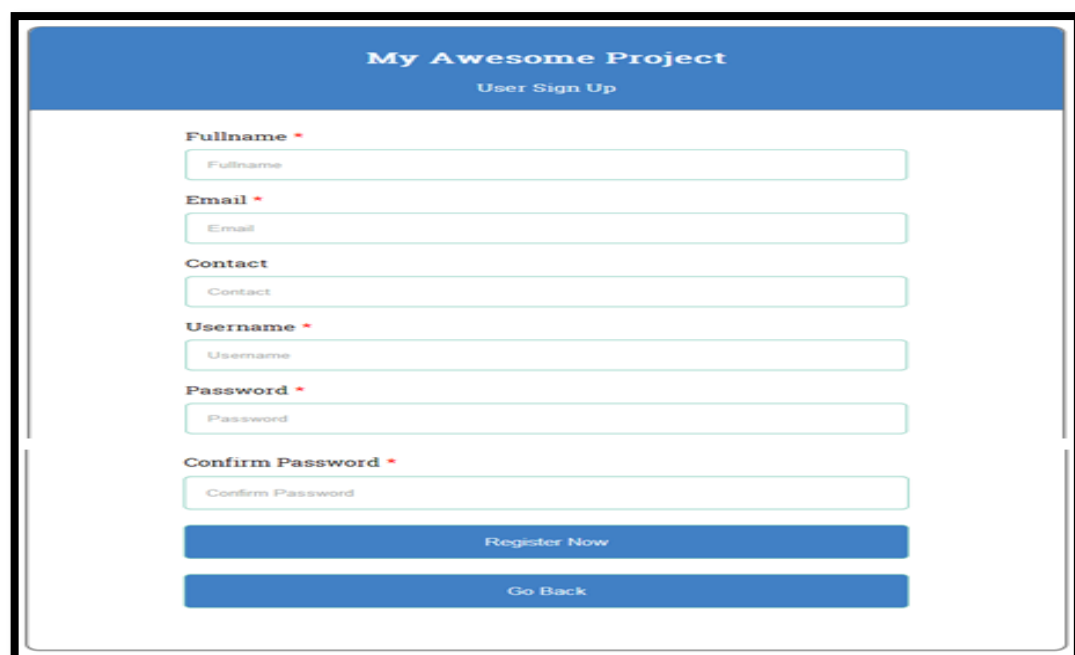
Username
Username

Password
Password

Login

Sign Up

2) Registration page / Sign up



The screenshot shows a user sign-up interface for "My Awesome Project". The page has a blue header with the title "My Awesome Project" and the subtitle "User Sign Up". Below the header, there are six input fields: "Fullname", "Email", "Contact", "Username", "Password", and "Confirm Password". Each input field has a red asterisk next to its label. Below the input fields, there are two blue buttons: "Register Now" and "Go Back".

My Awesome Project
User Sign Up

Fullname *
Fullname

Email *
Email

Contact
Contact

Username *
Username

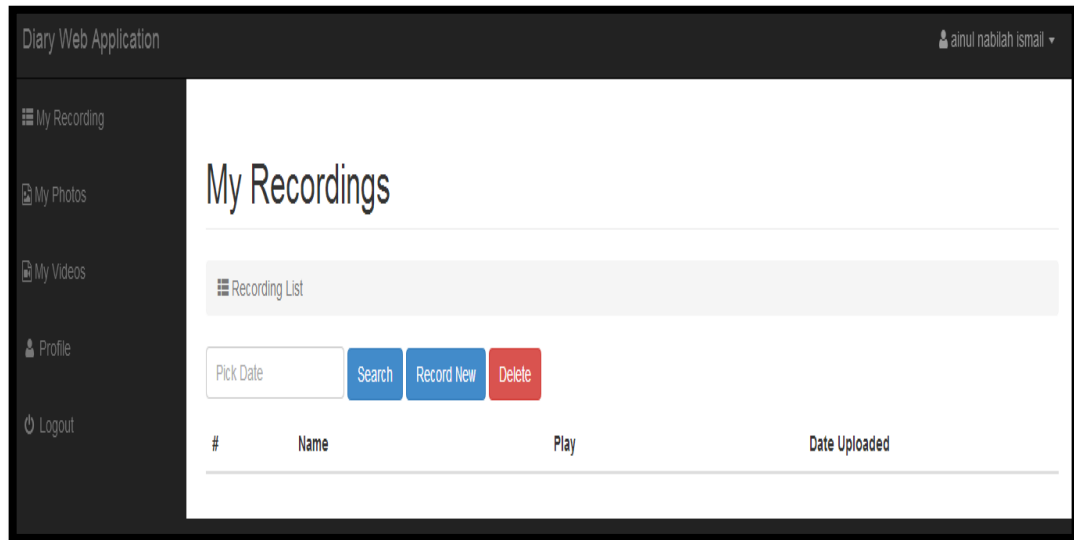
Password *
Password

Confirm Password *
Confirm Password

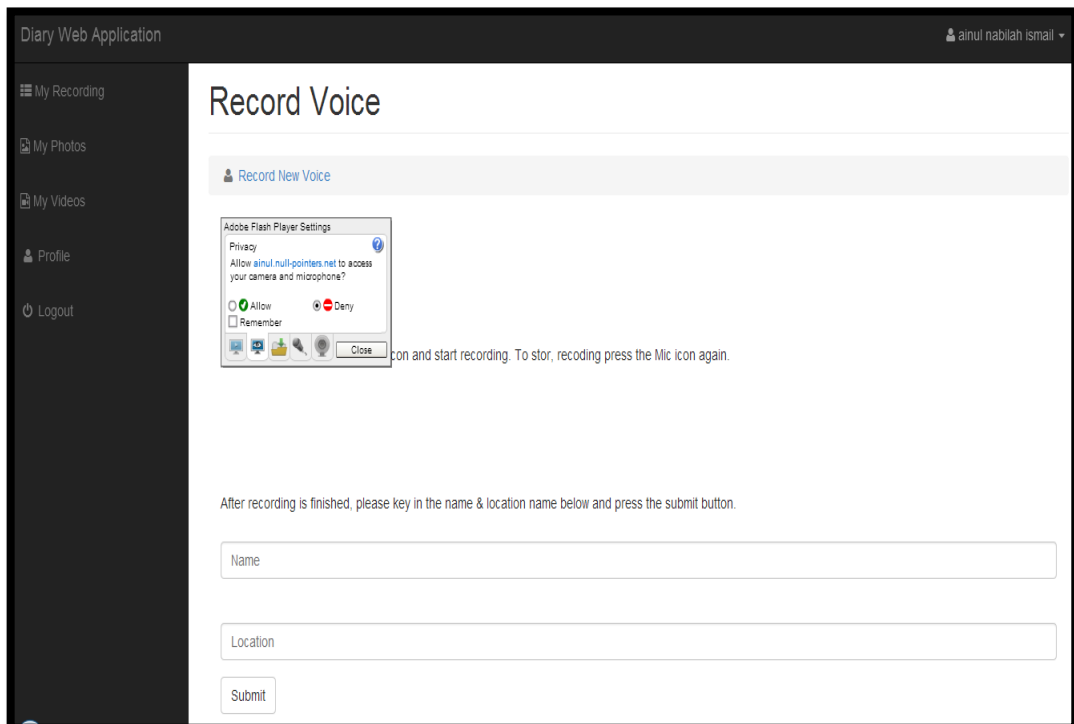
Register Now

Go Back

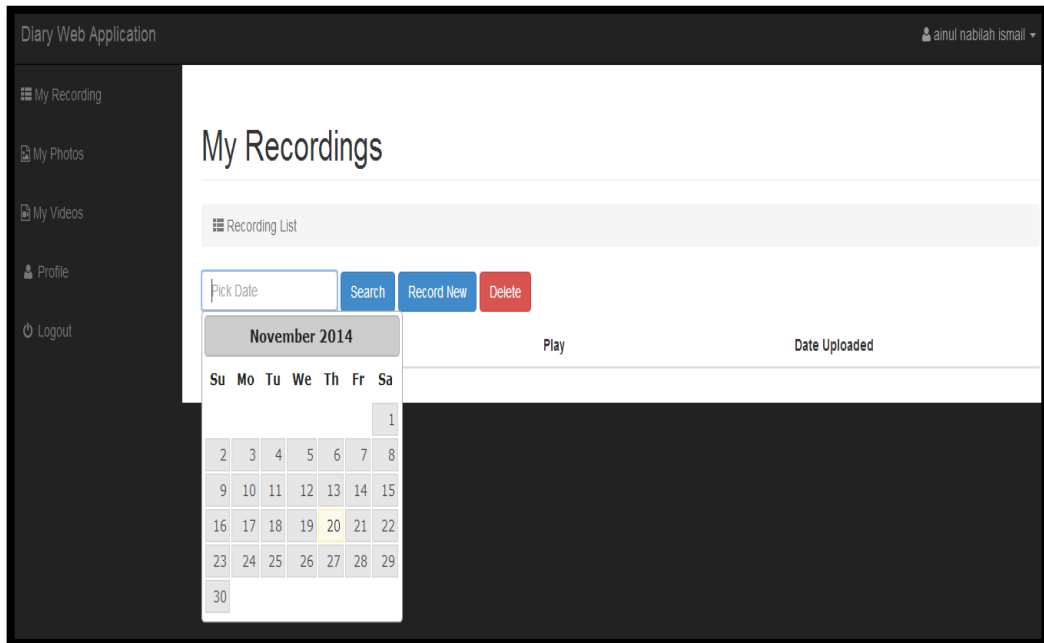
3) My Recordings List Page



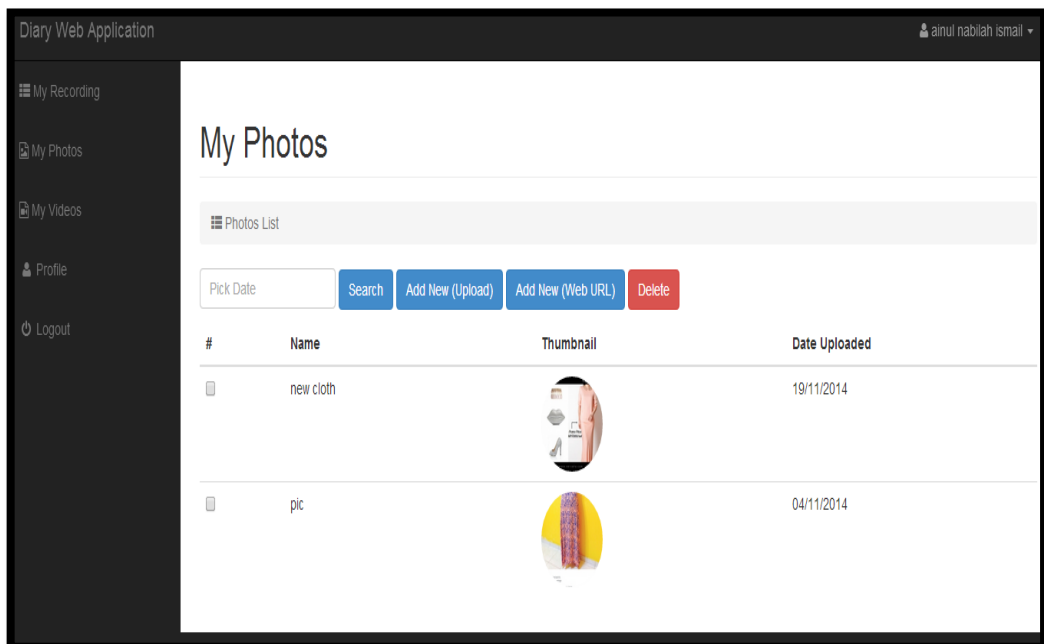
4) Diary Recorder Application



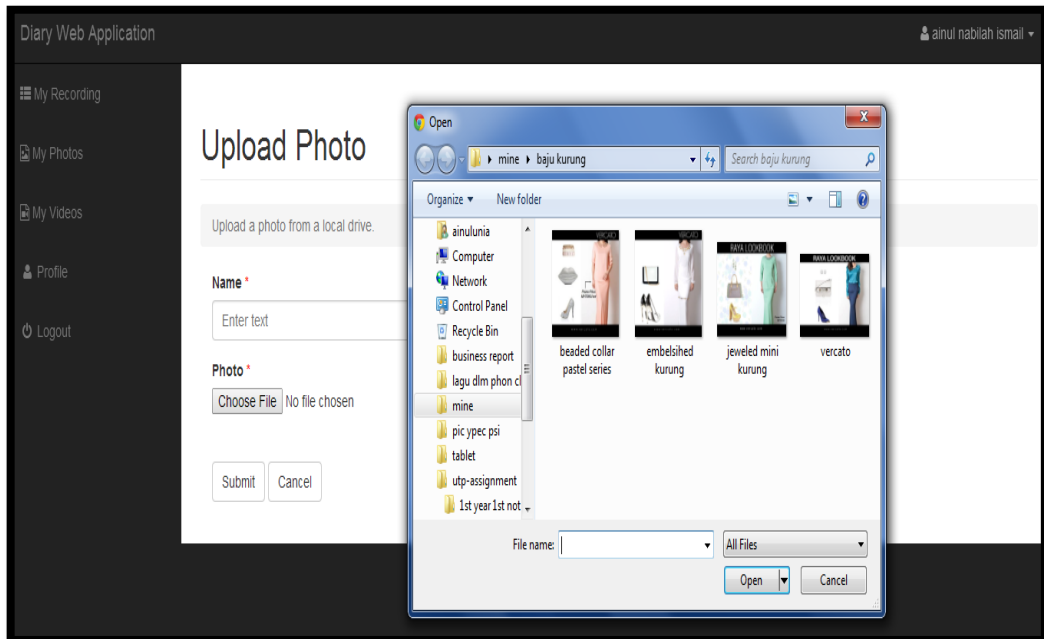
5) Searching Application for Messages of Diary from Lists



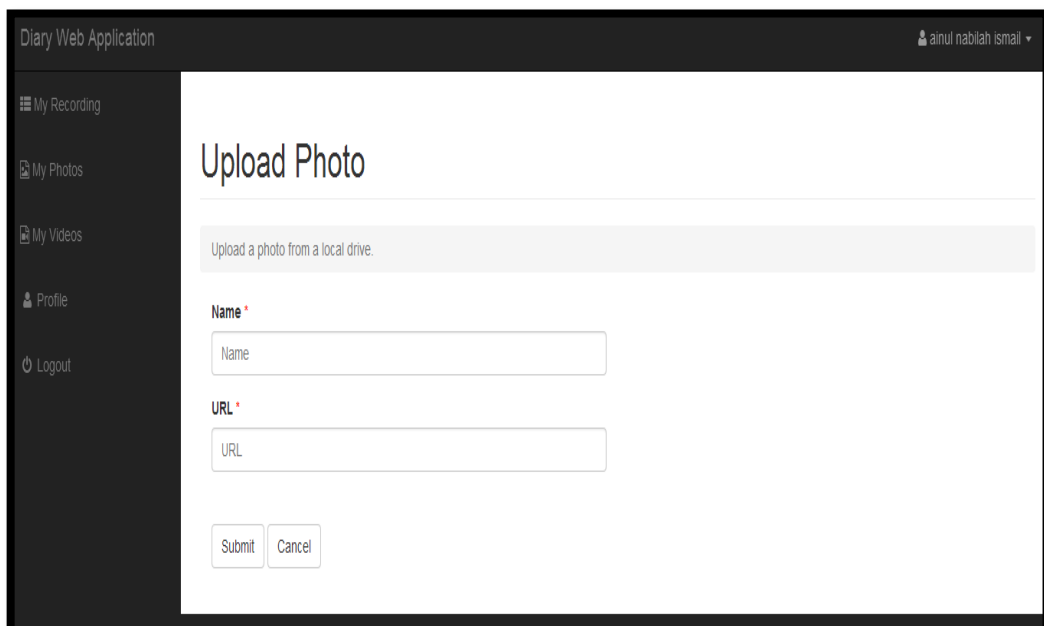
6) My Photos Page



7) Uploading Picture from Local Host file



8) Uploading Picture using URL Link from Website



9) Searching Application for Picture from Lists

The screenshot shows the 'My Photos' page of a web application. The page has a dark sidebar on the left with navigation options: My Recording, My Photos, My Videos, Profile, and Logout. The main content area is titled 'My Photos' and contains a 'Photos List' section. This section includes a search bar with a 'Pick Date' input, a 'Search' button, and three action buttons: 'Add New (Upload)', 'Add New (Web URL)', and 'Delete'. Below the search bar is a calendar for November 2014, with the 20th highlighted. To the right of the calendar is a table of photos:

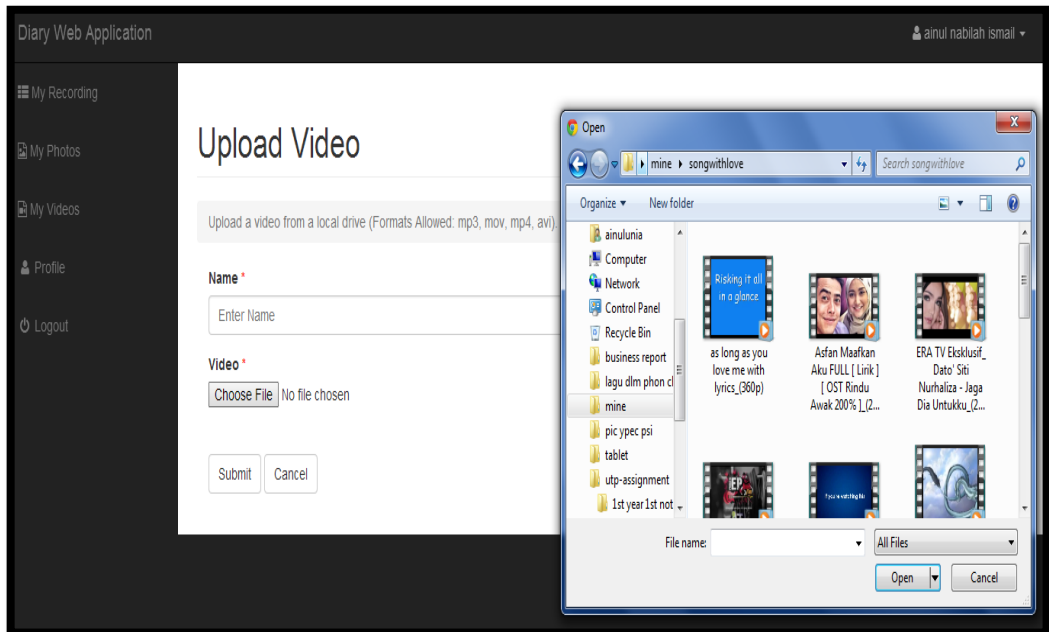
Thumbnail	Date Uploaded
	19/11/2014
	04/11/2014

10) My Video Page

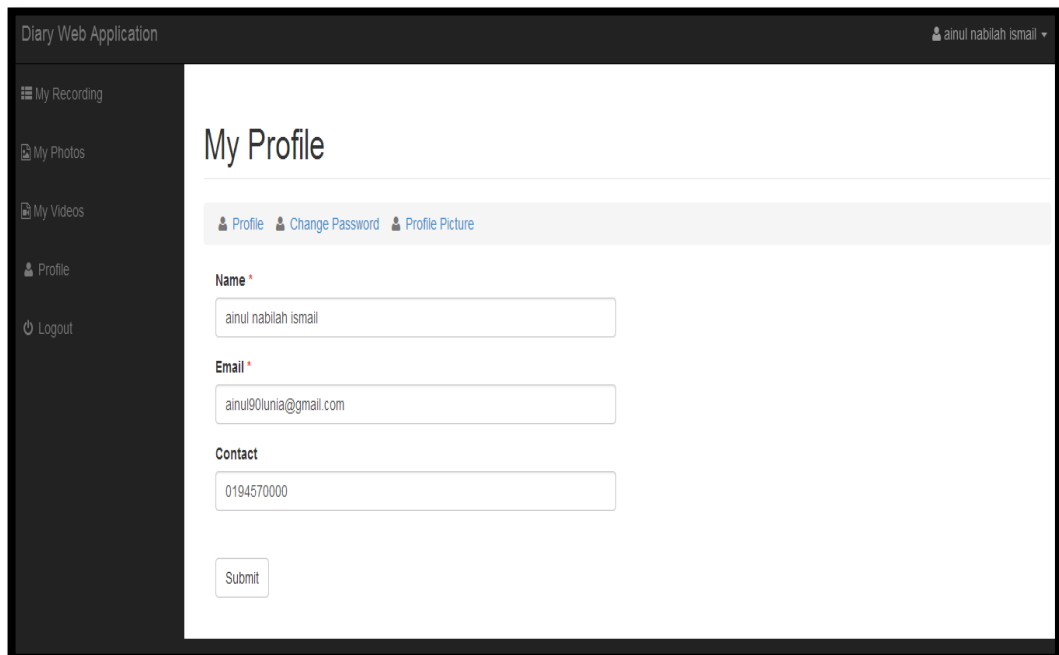
The screenshot shows the 'My Videos' page of a web application. The page has a dark sidebar on the left with navigation options: My Recording, My Photos, My Videos, Profile, and Logout. The main content area is titled 'My Videos' and contains a 'Video List' section. This section includes a search bar with a 'Pick Date' input, a 'Search' button, and two action buttons: 'Add New (Upload)' and 'Delete'. Below the search bar is a table of videos:

#	Name	Filename	Date Uploaded
1	video	Happy Background Music_(240p).avi	04/11/2014

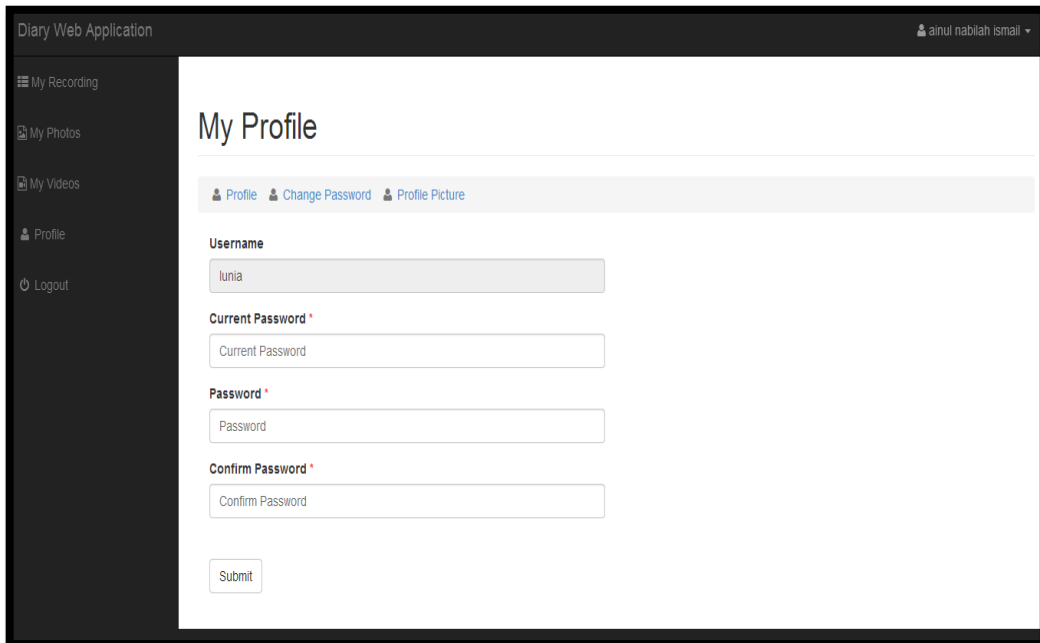
11) Uploading Video from Local Host File



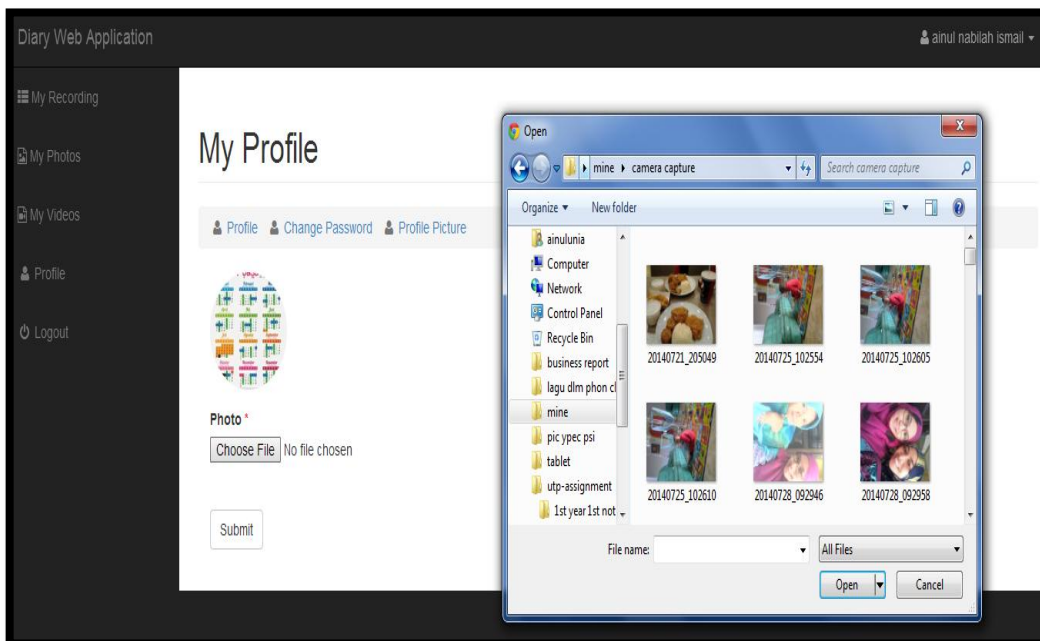
12) My Profile Page



13) Change Password Application Page



14) Profile Picture Application Page



15) Log Out Application

