HIGHER LEARNING ADVISORY SYSTEM

by

ANIS SYAHIRAH BINTI MOHD ROSDI

14222 BIS

A project dissertation submitted to

Department of Computer and Information Sciences

Universiti Teknologi PETRONAS

in partial fulfilment of the requirements for the

Bachelor of Technology (Hons)

(Business Information System)

FYP II SEMESTER JANUARY 2014

Universiti Teknologi PETRONAS

Bandar Seri Iskandar

31750 Tronoh

Perak Darul Ridzuan

CERTIFICATION OF APPROVAL

HIGHER LEARNING ADVISORY SYSTEM

by

ANIS SYAHIRAH BINTI MOHD ROSDI
14222 BIS

A project dissertation submitted to
Department of Computer and Information Sciences
Universiti Teknologi PETRONAS
in partial fulfilment of the requirements for the
Bachelor of Technology (Hons)
(Business Information System)

FYP II SEMESTER JANUARY 2014

Approved:

_____

Dr Emy Elyanee binti Mustapha
Project Supervisor

Universiti Teknologi PETRONAS
Bandar Seri Iskandar
31750 Tronoh
Perak Darul Ridzuan

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.

_____

ANIS SYAHIRAH BINTI MOHD ROSDI

ABSTRACT

Higher Learning Advisory System is an advisory system that will acts as a recommender system for high school leavers who will be pursuing their higher learning education; and school counsellors who will be advising those high school leavers. Hence, the target user for this system will be mainly high school leavers and counsellors as a recommender system, either formally or informally.

Initially, the user of the system need to enter relevant details such as high school examination results and other students academic based interest. The system will matches the input with available information and recommends courses of study appropriately to the student based on the analysis done by the system.

The system will act as a recommender system to the user which might suggest few suggestions that match with the students' capability and interest. As the end result, students are hoped to manage to decide where to pursue their study well instead of just waiting for offers to come to them and jeopardize their future without any guidance.

ACKNOWLEDGEMENT

First of all I would like to be thankful to God Almighty, because of His blessings and bliss, I finally completed my final year project. He gave me strength and ideas in order for me to complete my project successfully.

I would also like to thank to my final year project supervisor, Dr. Emy Elyanee binti Mustapha and lecturers of Department of Computer and Information Sciences, Universiti Teknologi PETRONAS who has guided me throughout the project and for all valuable knowledge that I experienced throughout my study. They gave me suggestion, opinions and encouragement to complete the project. Their professionalism and expertise has been helping me to do well in this project.

Besides, I would like to thank to my family for their full support in my struggle to complete the project. Their endless support gives me strength and courage to go through every challenge that I have to face in completing this final year project.

Last but not least, my great appreciation also dedicated to all friends who helped and supported me directly or indirectly. Thank you for all their help, support and consideration. I hope that the idea of this project will benefit the society in the future.

TABLE OF CONTENTS

CHAPTER 4: RESULT AND DISCUSSION

LIST OF FIGURES

CHAPTER 1
INTRODUCTION

1.1 Background of Study

In Malaysia, most of high school leavers will opt to pursue their studies at higher learning institutions either at universities or colleges. For academic year of 2012/2013, about 85,247 high school leavers pursuing studies at higher education level. Thus, as far that high school leavers' concern, usually they managed to get tacit knowledge of experiences from their family and seniors as well as few informal sharing blogs and websites on education. There is no exact system or website that can directly guide them to decide on what field of study that is suitable of them as well as the range of choices of higher learning institution that offered them seats for the specific programmes of study. The idea of developing this system emerged to give solution to the high school leavers directly as well as via school counsellors in making choices of decision on which higher learning institute that might suit them based on qualifications and their tendency.

1.2 Problem Statement

1.2.1 Problem Identification

Nowadays it is quite hard for high school leaver to decide where to pursue their studies at higher learning institution due to abundant of information from various resources. However, the information gained is mainly limited to word of mouth or general readings and other peoples' opinions- which might be biased to one's personal preferences and experiences, as well as one's previous information that is usually not updated, nor aligned with the latest higher institutions requirements. This had caused misunderstanding, as the information being supplied via people opinion is differs with the current higher institution wants and demands either it is requirement based, or the study structure based itself.

1.2.2 Significant of the Project

The project will act as a tool to the high school leavers that will assist them to decide by recommending which higher learning institution and the programme offered will suit to their interest and qualifications. The project eases the access of information as a one stop recommendation center for the users, instead of manually dig in information one by one programme of study, the system will recommend what suits them best.

1.3 Objectives of the study

- To recommend high school leavers on which area of study will be suitable for higher learning education.
- To suggest school counsellors to guide their students with more specific advice on higher learning education.

1.4 Scope of Study

For the project, the scope is being limited to suggestions for students within Government Linked Companies (GLC) universities namely Universiti Teknologi PETRONAS (UTP), Universiti Tenaga Nasional (UNITEN) and Multimedia University (MMU) and courses suited with them. The scope act as the limitation to ensure the effectiveness of the system and act as its functional requirement. The scope might broaden into other public and private universities and colleges in future. As for now, the scope only covers to three main streams of study : Technology, Engineering and Accounting at all three listed universities.

1.5 Relevancy of the project

The project will later cater the need of wide pool of users. Even though the scope is being narrowed down into 3 GLC universities only, it will assist the high school leavers as well as school counsellor in decision making. It is a system that will be fully utilized in term of its usability which will cater bigger scope of users in future.

1.6 Feasibility of the project

The project is highly feasible towards completion in term of scope and timeframe within the end FYPII period which will be end by early of May 2014. The narrowed down scope will assist in term of the planning to develop and test the system before launching.

CHAPTER 2
LITERATURE REVIEW

High school leavers always being looked up as the future of one's country. Therefore, it highly important for them to plan their future in the best way. Besides of giving the opportunity to students to plan their future, this system will as well act as a helping tool to counsellors to assist the high school leavers to make a better decision despite of the traditional way of choosing higher learning institutions to pursue their study to.

2.1 Recommender system

Initially, recommender system are demographic, collaborative filtering and content based. Recently, it does incorporate with social information also. Recommender system uses various sources of information to provide its users with specific recommendations and predictions. Bobadilla et.al (2012) stated that recommender system does include few factors in order to balance the recommendation given itself such as accuracy, novelty, dispersity and stability.

One of the recommender systems is computational recommender system. It automates as well as supports some part of the recommendation process. Whereas, Terreen and Will (2001) defines that an automated recommender system assumes the recommender role that will offer recommendations to the user based on their preferences; while a recommendation support system is to ease people to create and share their recommendations.

Adomavicius and Tuzhilin (2005) stated that there was quite a lot of the research had been done on recommender system and classifies it as either collaborative or content based heuristics. There is four main issues in term of characterising the design of a recommender system. This includes preferences, algorithms, roles & communication and human-computer interaction.

2.2 School counsellors and their roles

Typically in Malaysia, school counsellors plays a big role in consulting the students on which area of study suits them most. Low, Kok and Lee (2013) stated that many authors suggested that school counselling services as a caretaker of their children at school as at home they was being cared by their family and parents.
Lister (1969) stated that modern counsellor had been defining themselves as a counsellor first, teacher second which to enhance their credibility and confidence as a main person in a school

From Awang (2012) point of view, school counsellors might be a good solution in handling students with challenging behaviour, instead of taking disciplinary actions from discipline teacher which is considered as harsh. This includes individual and grouping sessions with school counsellors as they are considered as experts in school that knows how to handle situation based on their psychological knowledge.

Haron, Jaafar and Baba(2010) classifies that counsellors that could not adapt with the school climate having tendency to affect their self-efficacy and work performances. This problem could be solved by inviting the parents and school community to harmonize the climate as well as to educate the community about the roles of counsellors.

According to Gysbers (2008) ;"Students being assisted by school counsellors in term of making the transition from school times to work or to other additional educations and trainings" which clearly reflects the big responsibility of counsellors despite of their glamorous job title. All this while, school counsellors will have a look at a bunch of thick guidelines documents besides of using their tacit knowledge of knowing which field of study their previous students had been to in order to give advice to their fellow students.

2.3 Factors affecting students to choose their higher learning institution

The university selection process itself is not an easy decision to be made. Some students might relying on their parents, friends opinion and ideas or encouragements from teachers in order to make decision. Esa et.al(2009) as quoted that, the high school leavers perception of pursuing studies at higher level were at moderate level, as their acceptance is more towards the courses offered.

Teichler (1997) stated that, commonly the admission to few prestigious universities seems to made the students overshadowing in their activities in school which is believed as a ticket to reserve a seat at a good higher education institution.

Fernandez (2010) as quoted, among the students reasons for pursuing studies at higher level includes to find good job, gain knowledge, widen experience, to fulfil their parents' expectation as well as due to their interest in the field of study itself. Fernandez as well specified that university website, school counsellor, prospectus and education fair is among the reliable sources of information being used by students in deciding their desired university. The fees or cost of studying is also considered as important even though students does put trust on public universities which offer lower fees.

Whereas Sharifah Nurulhikmah et al (2009) add on other factors such as financial aids, social environment of university as well as university reputation as among the factors to be thought of before deciding. Sharifah as well specifies that the factors must include academic reputation, accreditations, proximity and potential of marketability of degree certification.

Abdul Rahman (1986) also states, it does not really matter either the students education background is from academic or vocational background, as the parents are still giving their full support towards higher learning education.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Methodology

Research by existing online website will be the main method used to run this project. Questionnaires research had also been done to determine what is important factors for high school leavers to choose their universities which then will act as the weightage of the system.

The main non-functional requirements being focused in this project development is the reliability of the suggestion being suggested by the system. Thus, a good algorithm derived from data mining need to be done in order to accomplish the reliability of the system.

3.2 Project Methodology

Rapid application development (RAD) is a software development methodology which enables programmers and developers to quickly build programs. It provides lots of tools such as Visual Basic and Delphi which help to build graphical user interfaces that usually will take a large development effort and time.

RAD is considered suitable the methodology to develop this project as the scope of the project is focused, well defined and narrow. The data for the project is already exists, and the project will focus more towards analysis of the data. As the project is being developed by a stand alone developer, RAD is the most suitable method to cater the issue of lacking of manpower.

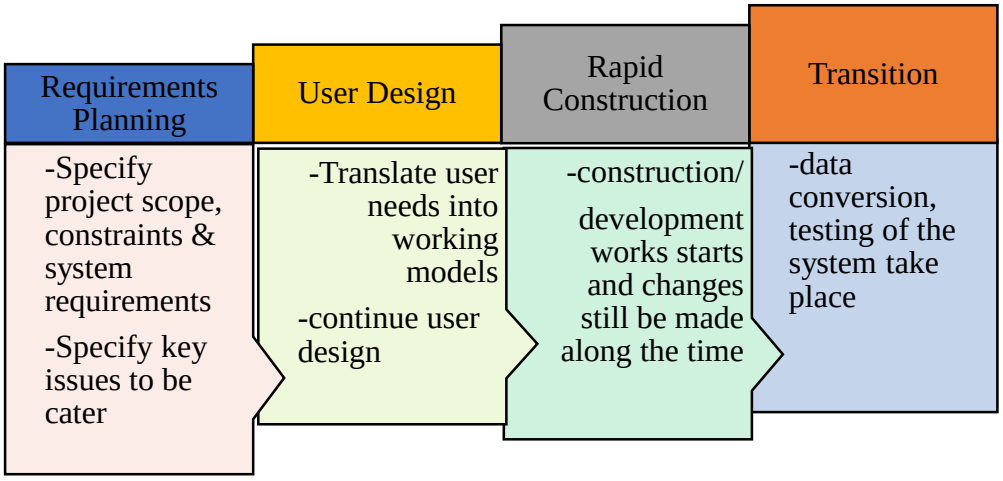


Figure 3.1 Rapid application development process

3.3 Equipment, Apparatus and Materials Required

The most important raw materials in this project is related information regarding intakes of related universities at higher learning institution level, course offered and its qualifications. These information will be retrieved via online research and information retrieval from GLC universities websites.

Whereas, other web development tool such as PHP, database, HTML and internet-sourced references might be needed in order to turn this idea into a working prototype.

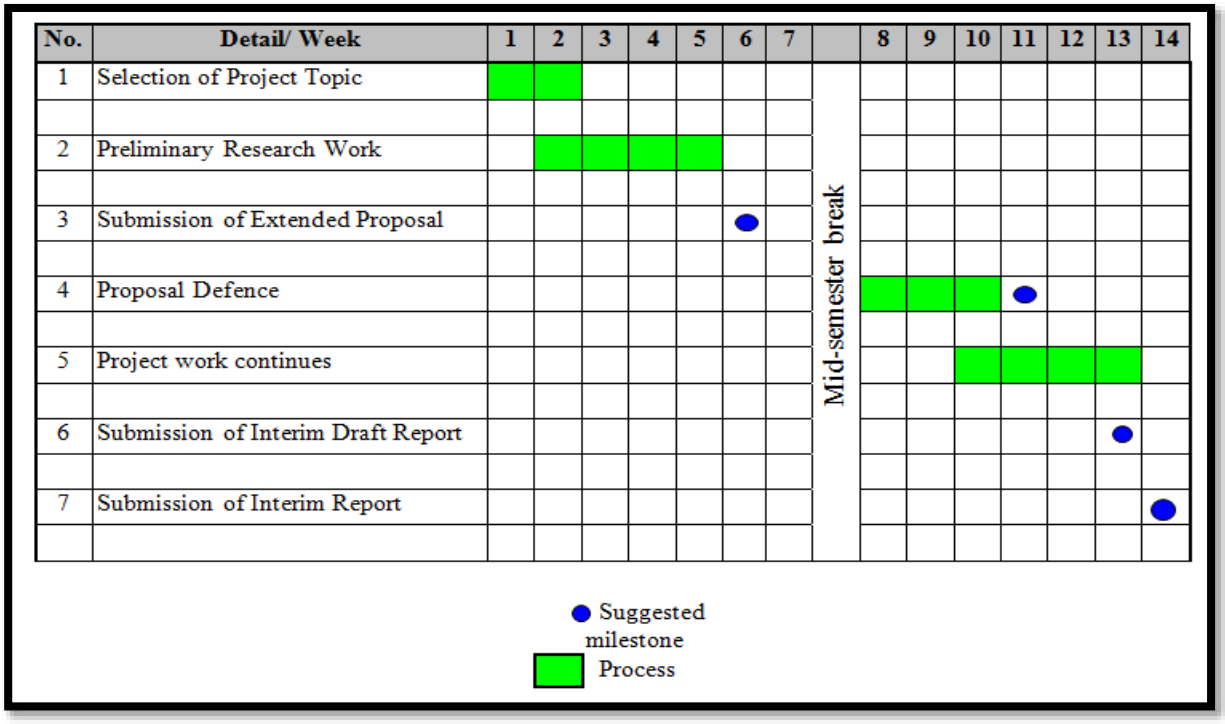
3.4 Project Activities

In order to complete the project, there is few activities need to be done. First and foremost, the need and feasibility of the project being analysed. Then, the software requirements specifications being detailed in order to get the idea of logical designing the interface as well as what the software will manage to cover.

Next, the phase of physical design- coding will starts and it will be aligned with the logical design. Once the coding is completed, testing of the software will be done with the user to see the usability of the software. If there is existence of errors to be corrected, it will be done before the implementation of the system.

3.5 Gantt Chart and Key Milestones

Final Year Project I Gantt Chart



Final Year Project II Gantt Chart

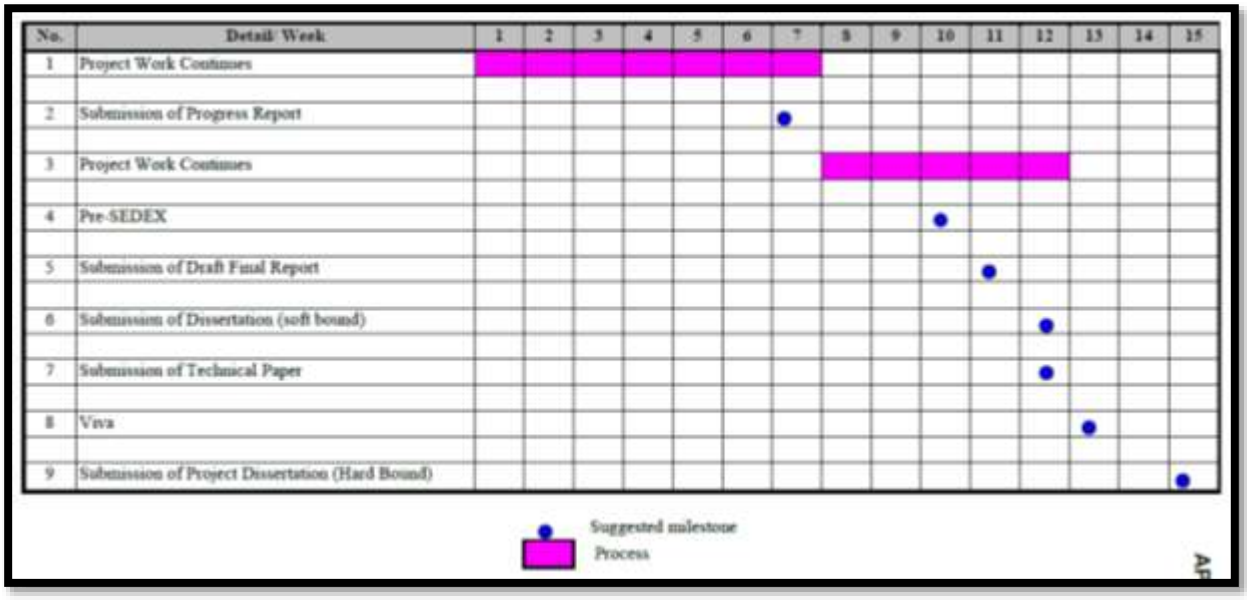


Figure 3.2 Gantt Chart and Key Milestones

CHAPTER 4
RESULT & DISCUSSION

4.1 Discussion on survey results

A survey via online questionnaire website, surveymonkey.com had been done to current university student and graduates from various university around Malaysia with different background of study. They had answered six questions of the survey and the discussion of the results as below.

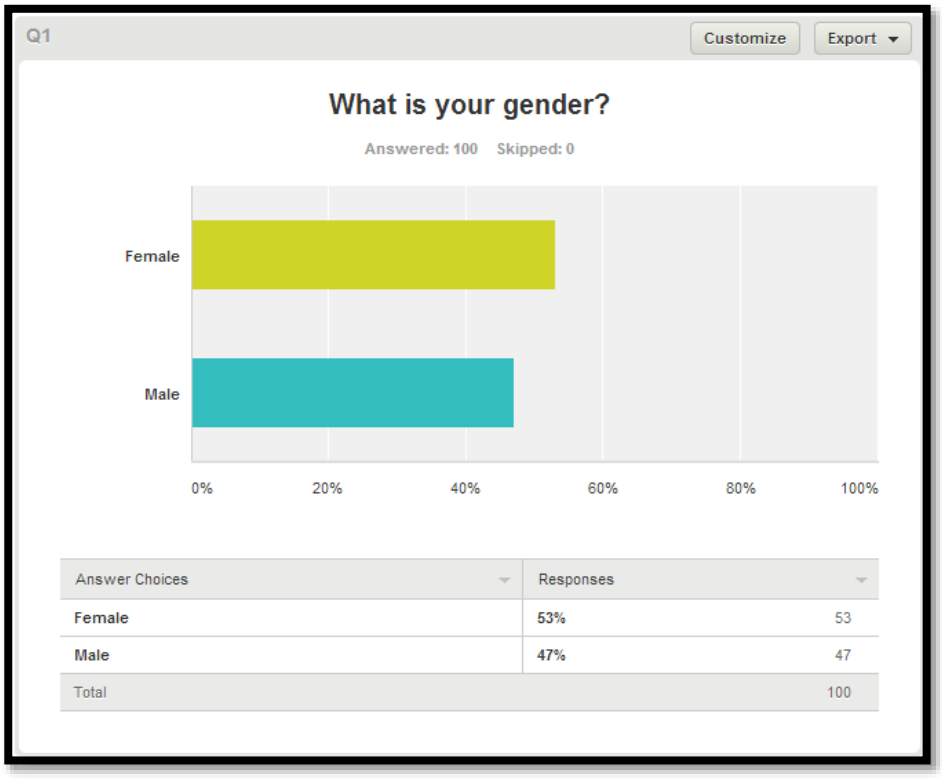


Figure 4.1 Gender of respondents

Figure 4.1 shows from total 100 respondents, 53% of them are female and the rest 47% are male. This question was being asked to make a simple analysis of knowing differences in gender hat had been studying at higher learning institution.

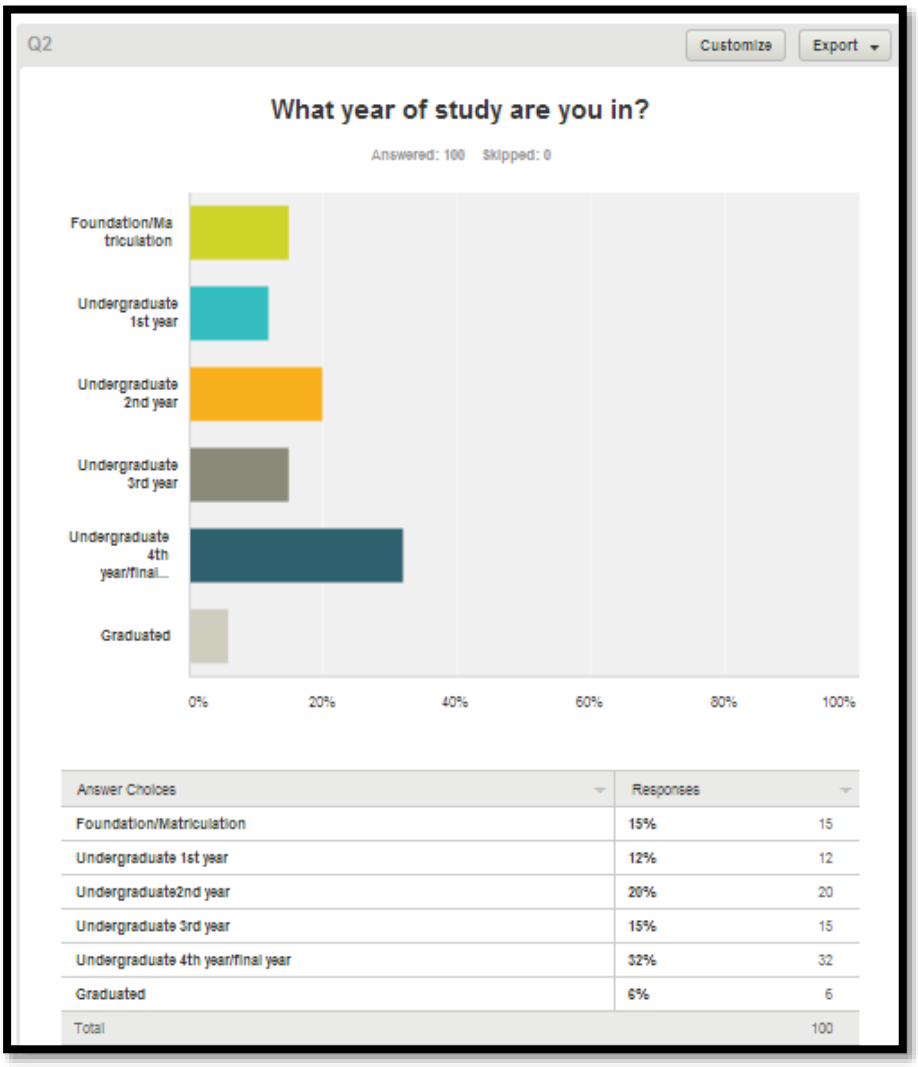


Figure 4.2 Respondents' current year of study

Figure 4.2 shows the information of respondents' current year of studies . 15% of them are from foundation or matriculation, 12% are from undergraduate 1st year, 20% are from undergraduate 2nd year. The other remaining percentage includes 15% from undergraduate 3rd year, 32% which is majority from undergraduate final year and the rest are graduated.

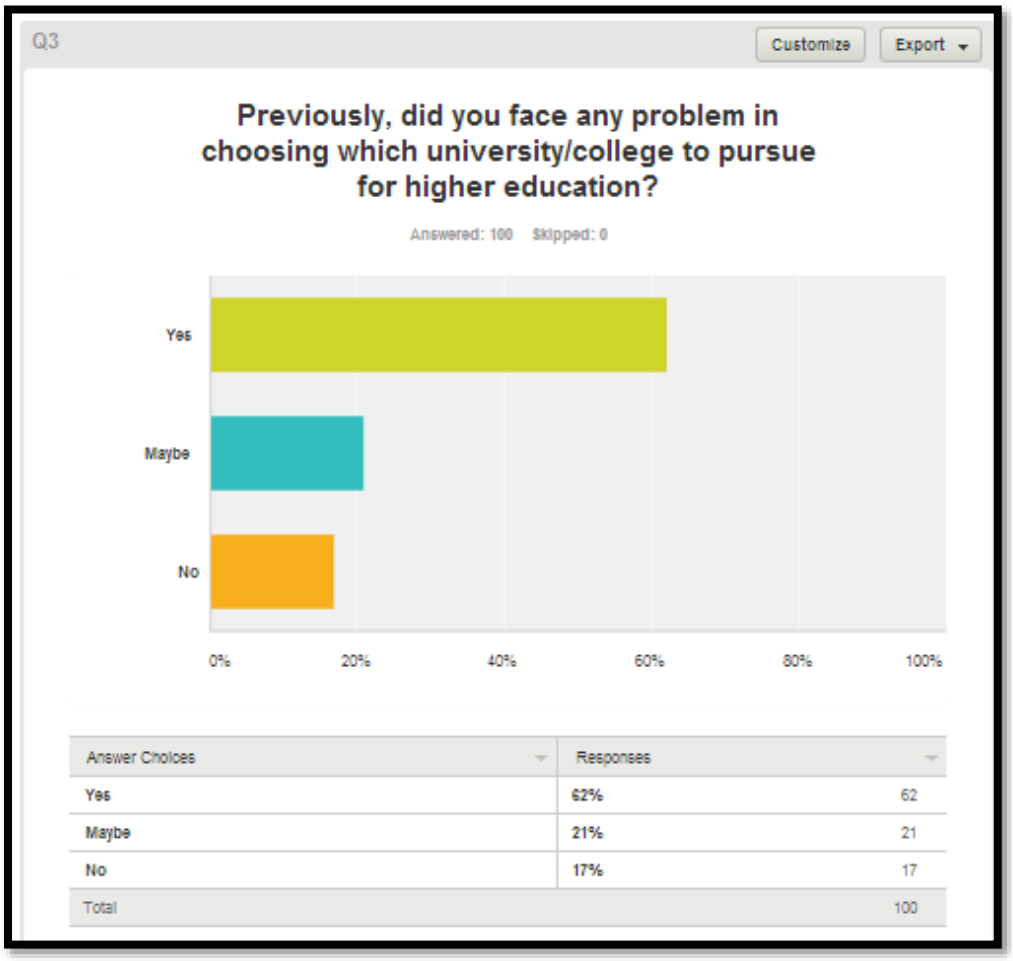


Figure 4.3 Problem faced in choosing university/college

Figure 4.3 recorded that, majority of the respondents- about 62% of them having problem in choosing which university or college to pursue their studies , 21% not sure if they had the problem while 17% strictly state that they did not having any problem in deciding before.

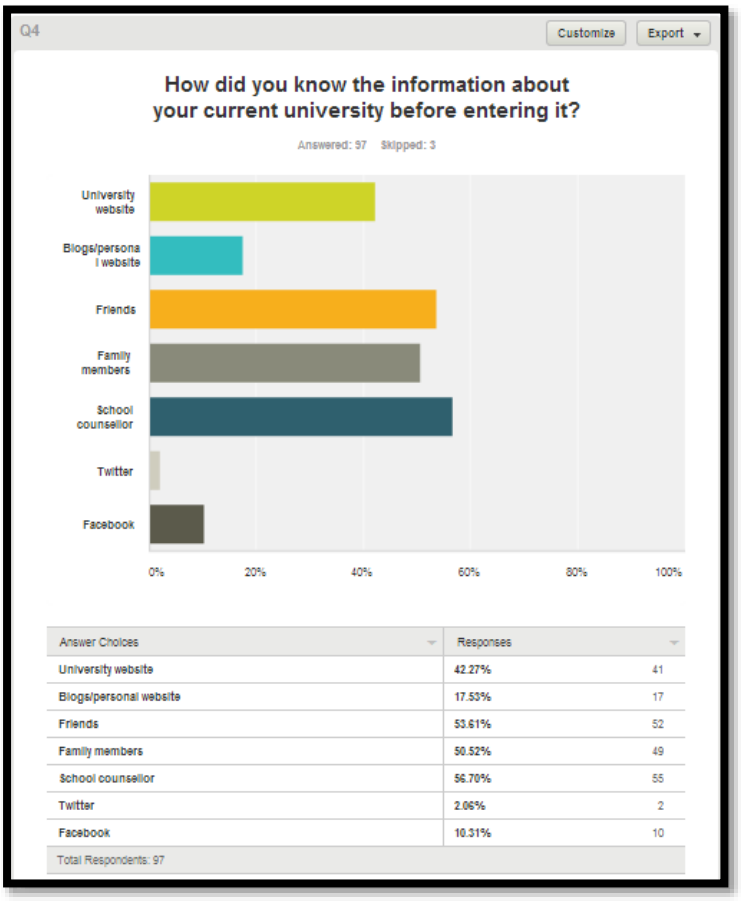
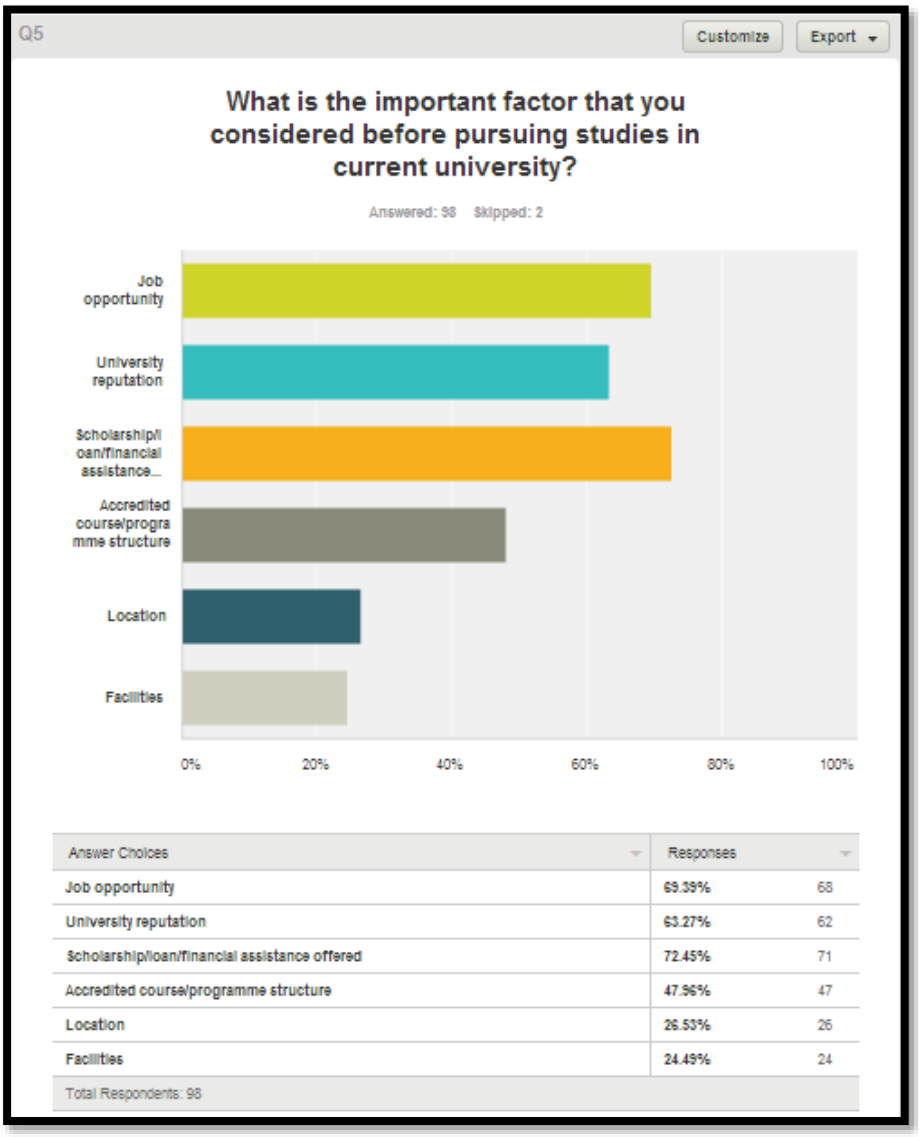


Figure 4.4 Sources of information

Most of the respondents chosen school counsellor, friends, family members and university websites as their main sources of information about their current university. Social network such as Twitter and Facebook does contribute small amount of information, while few respondents added up at others column that they get the information from newspaper, Short Messaging System (SMS) and directly from their scholarship sponsor such as PETRONAS, MARA and JPA.



Answer Choices	Responses	
Job opportunity	69.39%	68
University reputation	63.27%	62
Scholarship/loan/financial assistance offered	72.45%	71
Accredited course/programme structure	47.96%	47
Location	26.53%	26
Facilities	24.49%	24
Total Respondents: 98		

Figure 4.5 Factors of choosing university/college

Figure 4.5 shows that a very large number of respondents- 71% of them will choose a university offer with financial assistance, good university reputation and job opportunity in the future. Whereas, respondents that answered others column added that they choose university based on interest, tuition fees, family choices and recognized by certain board in order for them to get pursue studies to Masters and PhD level in future.

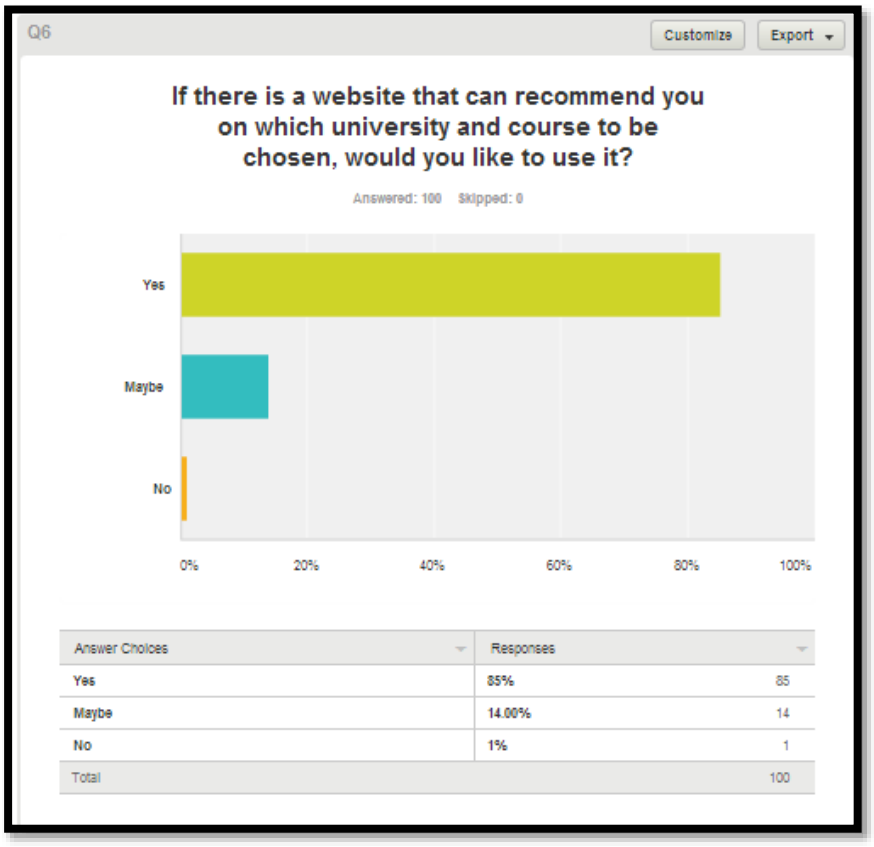


Figure 4.6 Inclination of respondents in using system

Figure 4.6 shows responses for the last question of the questionnaire which majority of the respondents would like to use such system that will recommend them to choose university if it does exist.

4.2 Flow of the system

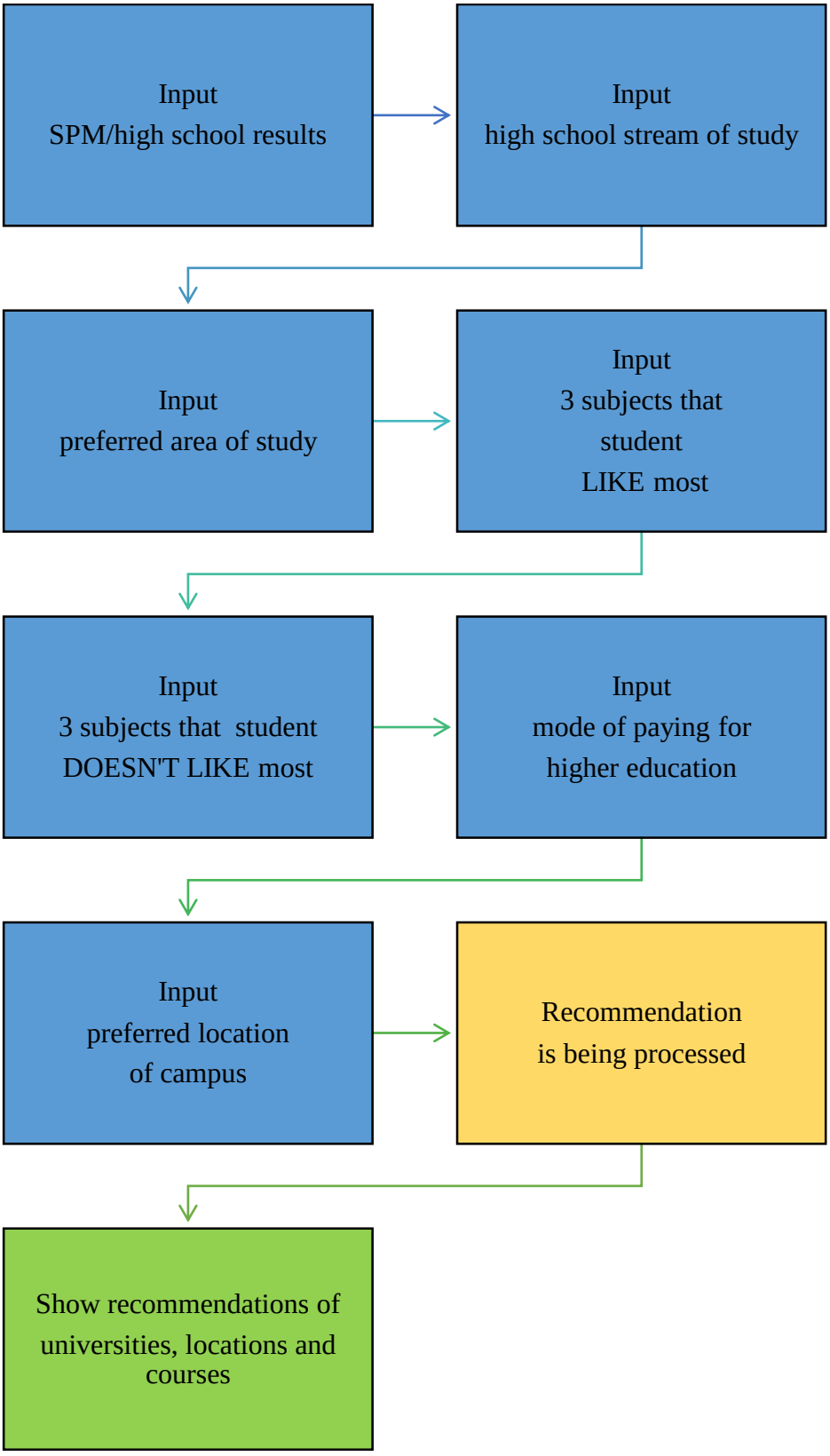
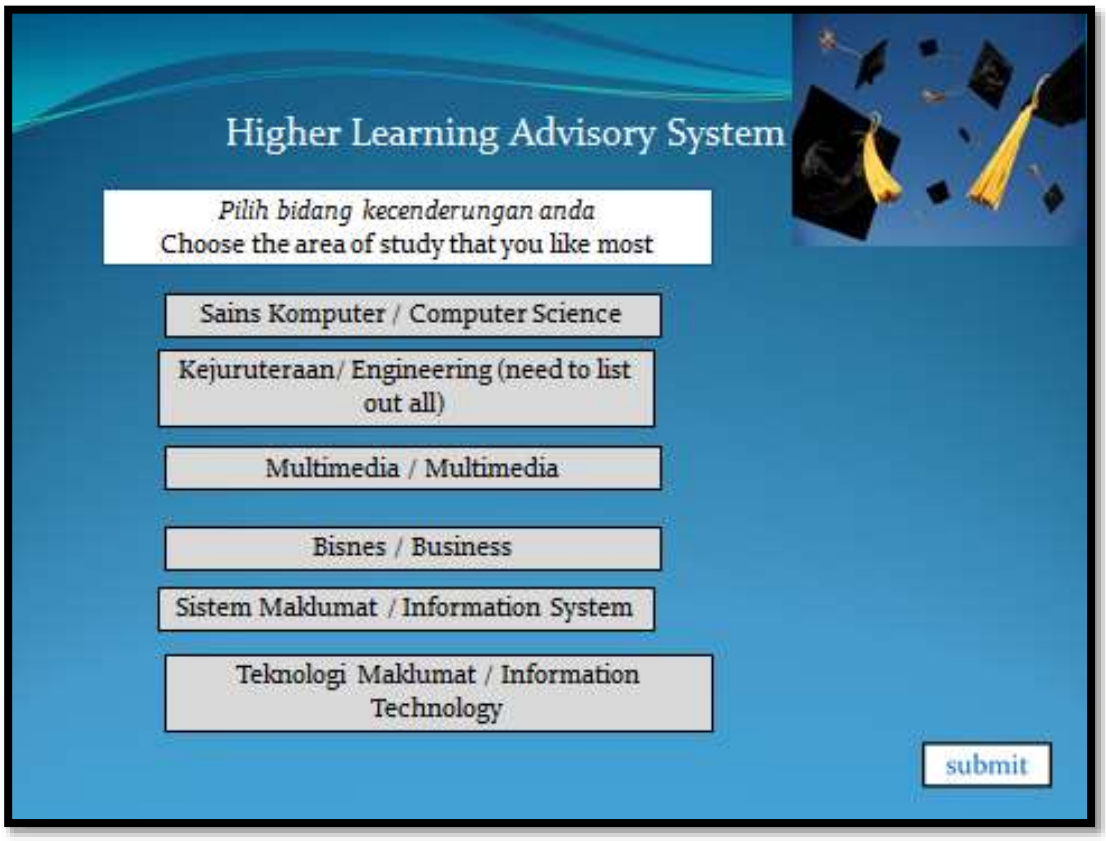
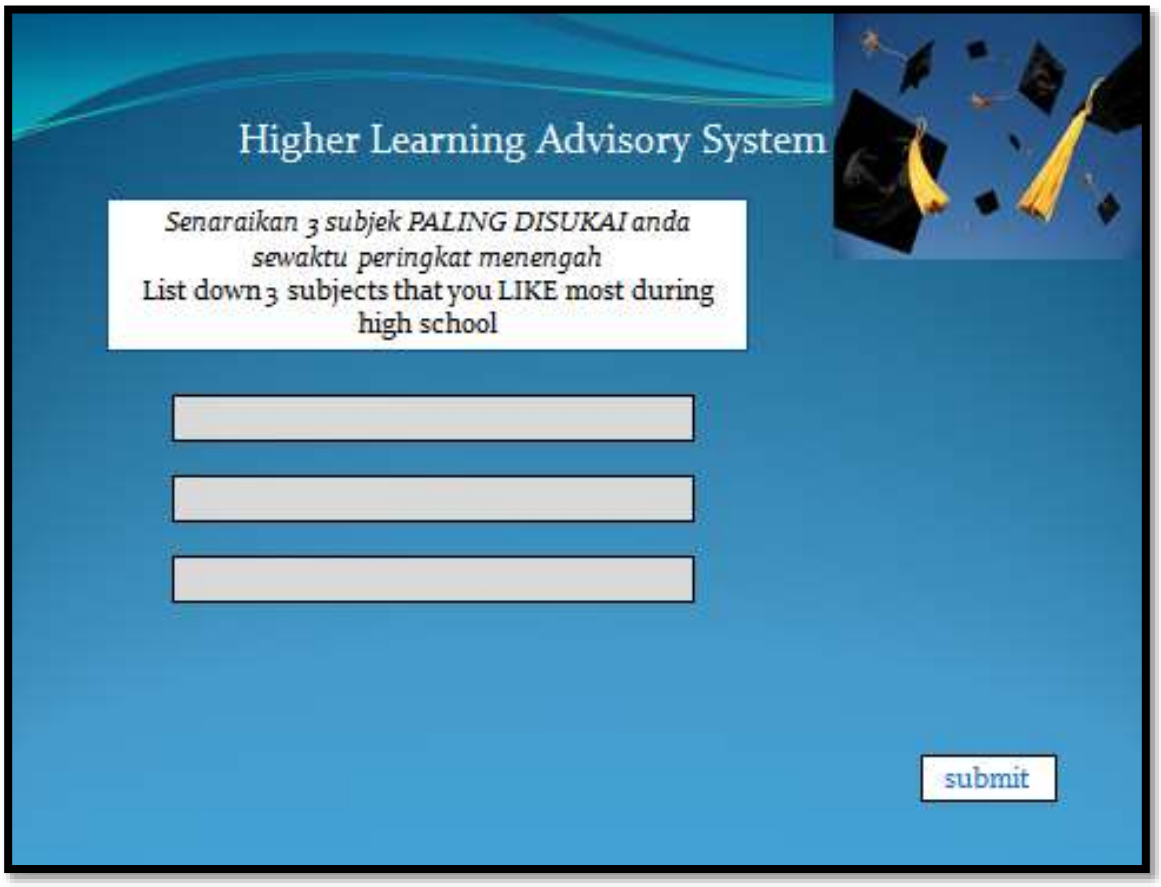


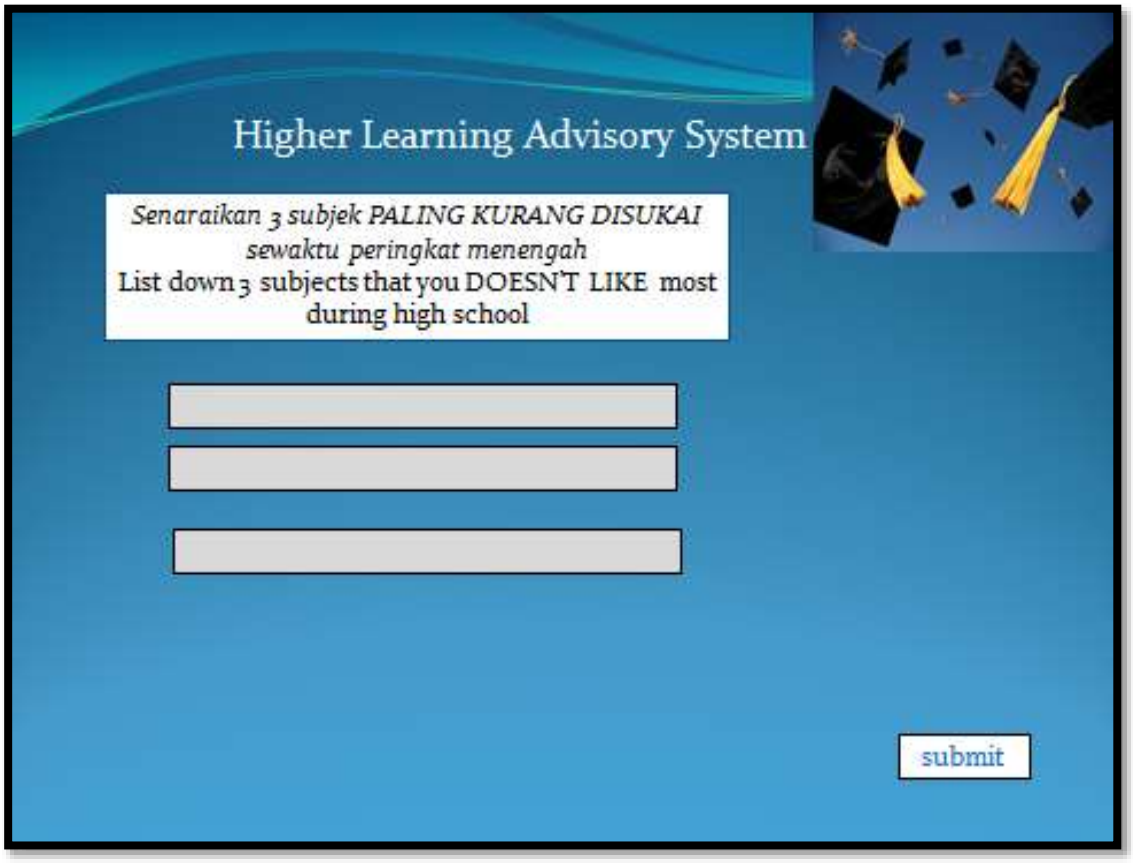
Figure 4.7 Flow of the system

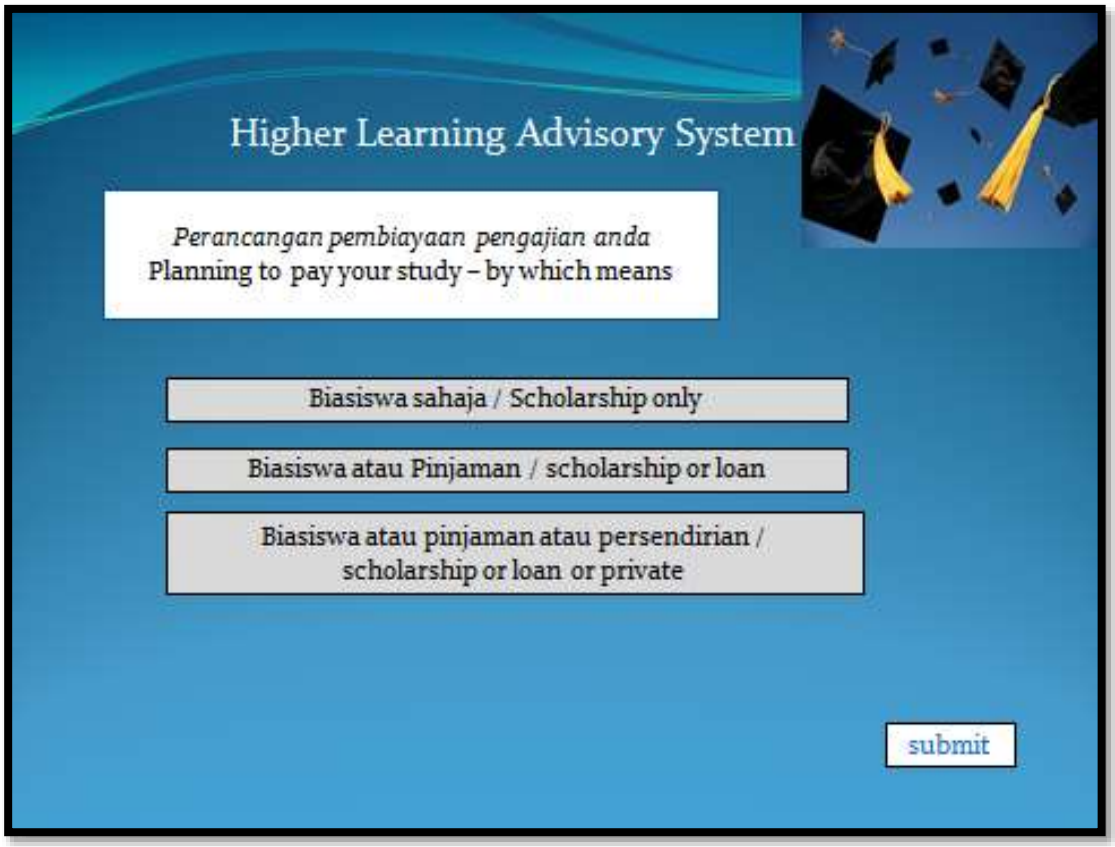
4.3 Proposed prototype of the system

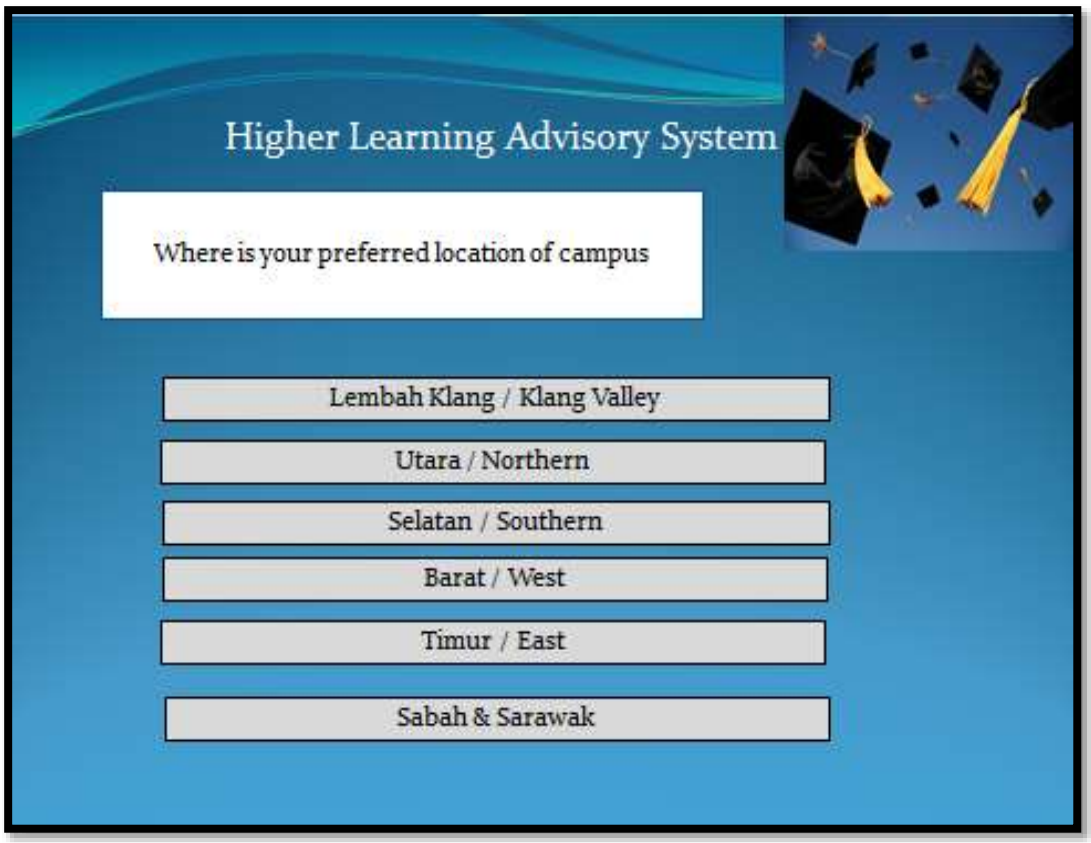

Higher Learning Advisory System
Pilihan aliran pendidikan menengah anda
Choose your high school stream of study
Sains Tulen / Pure Science
Perakaunan /Accounting
Sastera / Literature
Teknikal / Technical
submit

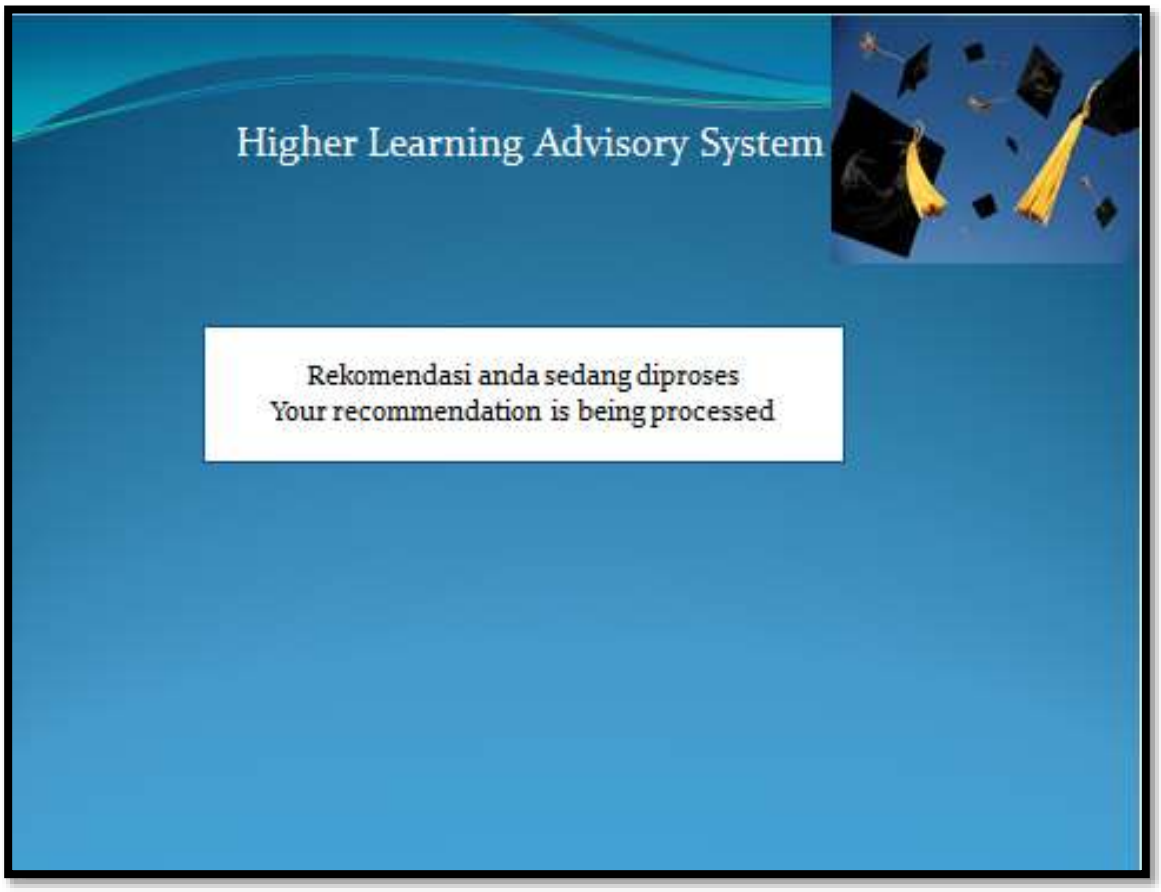

Higher Learning Advisory System
Pilih bidang kecenderungan anda
Choose the area of study that you like most
Sains Komputer / Computer Science
Kejuruteraan/ Engineering (need to list out all)
Multimedia / Multimedia
Bisnes / Business
Sistem Maklumat / Information System
Teknologi Maklumat / Information Technology
submit


Higher Learning Advisory System
Senaraikan 3 subjek PALING DISUKAI anda sewaktu peringkat menengah
List down 3 subjects that you LIKE most during high school
submit


Higher Learning Advisory System
Senaraikan 3 subjek PALING KURANG DISUKAI sewaktu peringkat menengah
List down 3 subjects that you DOESN'T LIKE most during high school
submit


Higher Learning Advisory System
Perancangan pembiayaan pengajian anda
Planning to pay your study – by which means
Biasiswa sahaja / Scholarship only
Biasiswa atau Pinjaman / scholarship or loan
Biasiswa atau pinjaman atau persendirian / scholarship or loan or private
submit

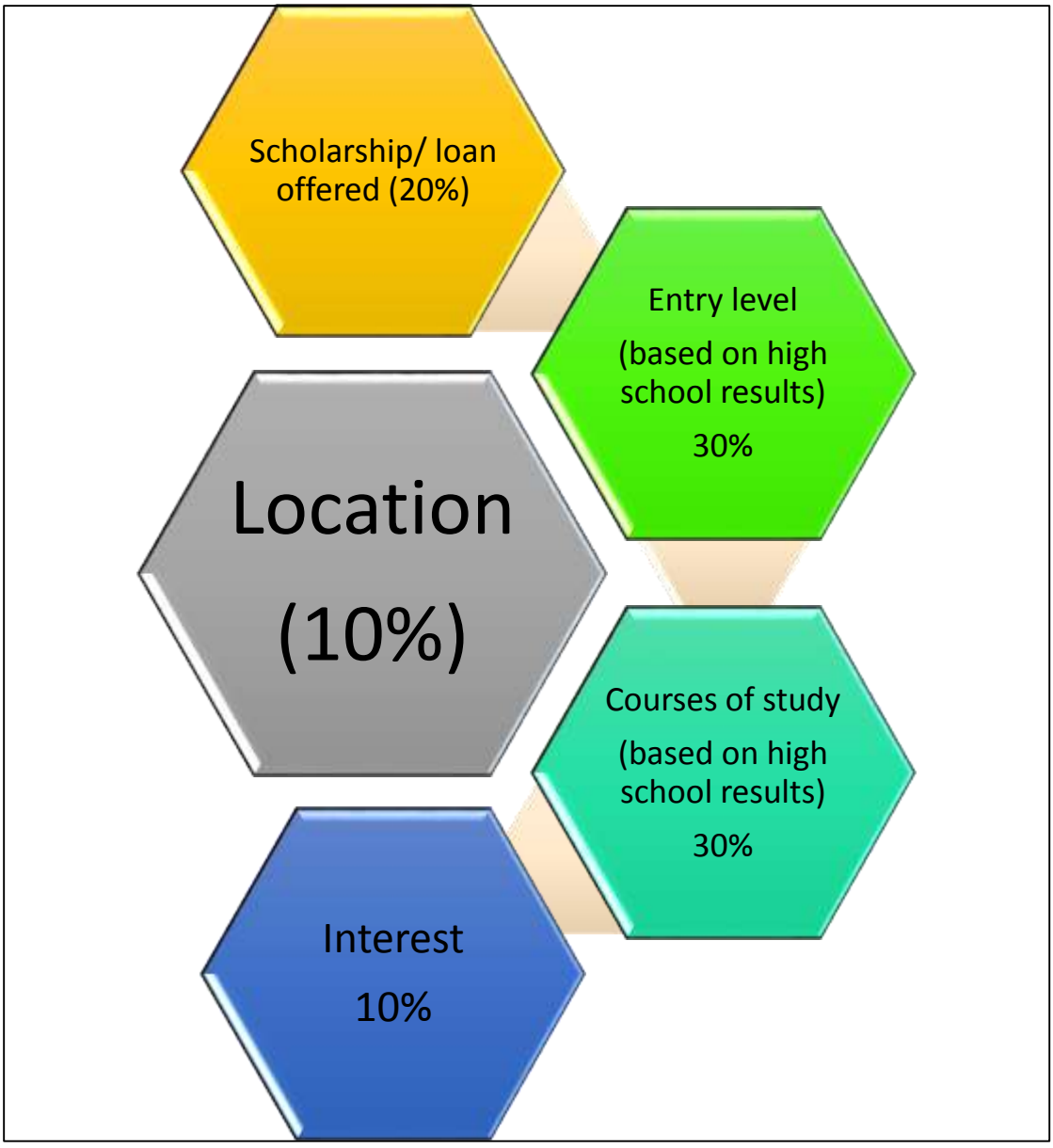

Higher Learning Advisory System
Where is your preferred location of campus
Lembah Klang / Klang Valley
Utara / Northern
Selatan / Southern
Barat / West
Timur / East
Sabah & Sarawak


Higher Learning Advisory System
Rekomendasi anda sedang diproses
Your recommendation is being processed

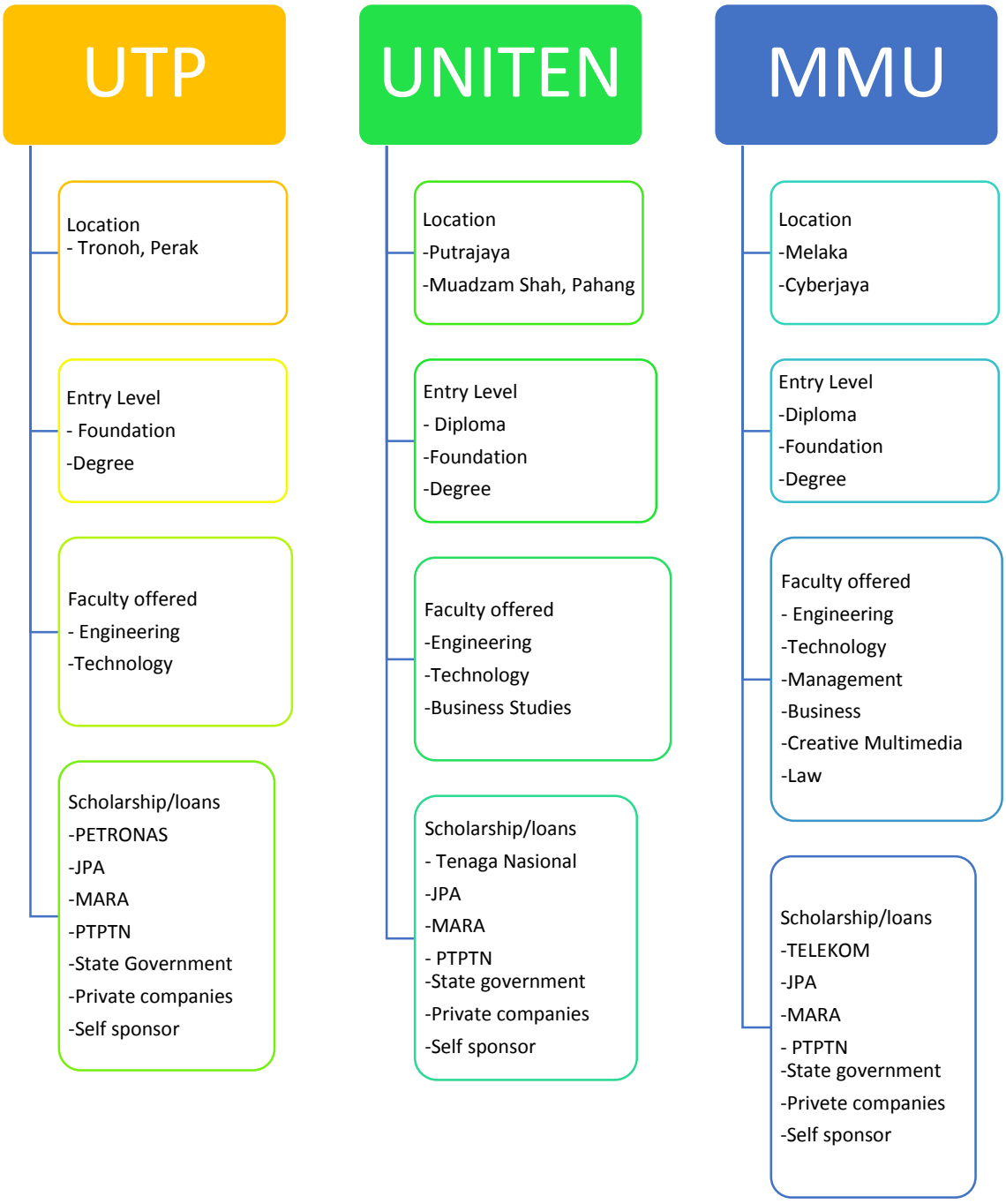

Higher Learning Advisory System
You are recommended to pursue your study
Recommendation #1
Uni-campus Course
Scholarship
Recommendation #2
Uni-campus Course
Scholarship
Recommendation #3
Uni-campus Course
Scholarship

4.4 Proposed weightage for the system

Each category of choice will be given weightage, as an example location as lowest weightage as compared to scholarship or loan offered.



4.5 Proposed information to be used in the system development



4.6 Compiled requirements to enter universities- SPM based

Preferred area of study	Diploma	Foundation
Technology/IT	• At least E in all subjects • Compulsory : C+ for Bahasa Melayu, English & Mathematics	• At least B in all subjects, including Bahasa Melayu, English & Mathematics
Engineering	• At least E for Additional Mathematics, Physics, Chemistry • At least C for Mathematics	• At least B for English, Mathematics, Physics, Chemistry, Additional Mathematics
Accounting	• At least E for English • At least C for Bahasa Melayu & English	• At least C for English, Bahasa Melayu and Mathematics

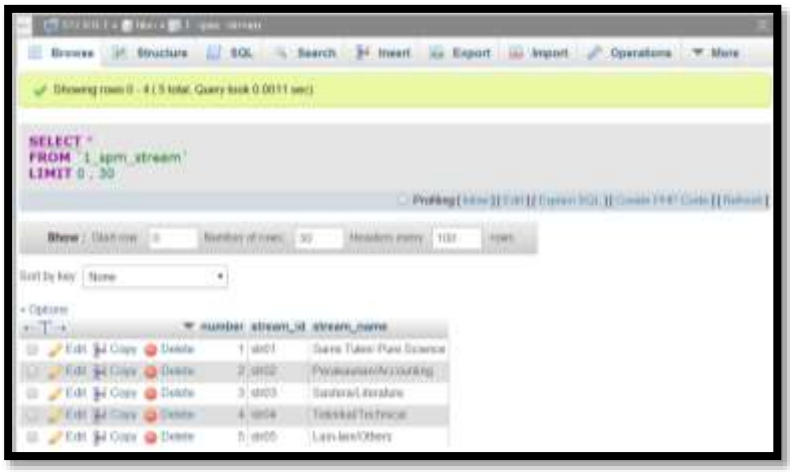
4.7 Compiled possible recommendation programme of studies and location

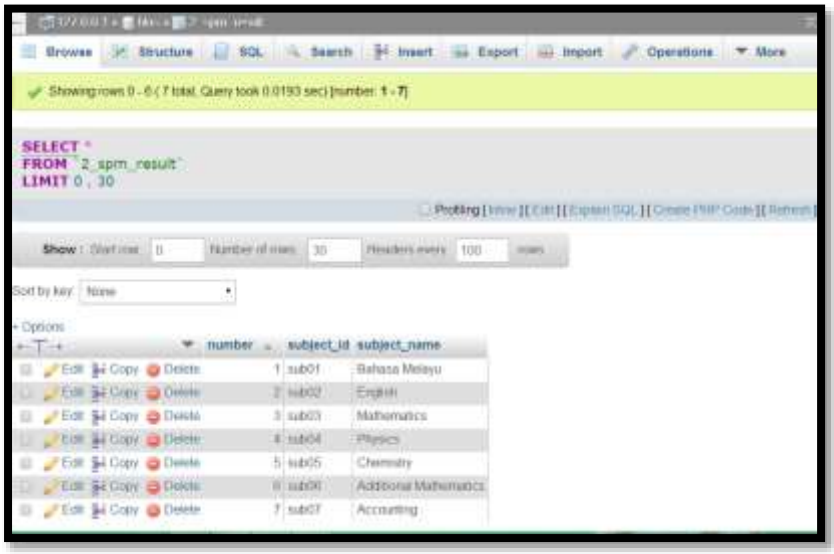
Preferred area of study	Level	Location	Recommendation (programme of study & university)
Technology	Diploma	Central	Diploma Computer Science/IT -Uniten Putrajaya
		Central	Diploma Computer Science -MMU Cyberjaya
		Southern	Diploma IT -MMU Melaka
	Foundation	Northern	Foundation Technology -UTP Perak
		Central	Foundation Technology -MMU Cyberjaya

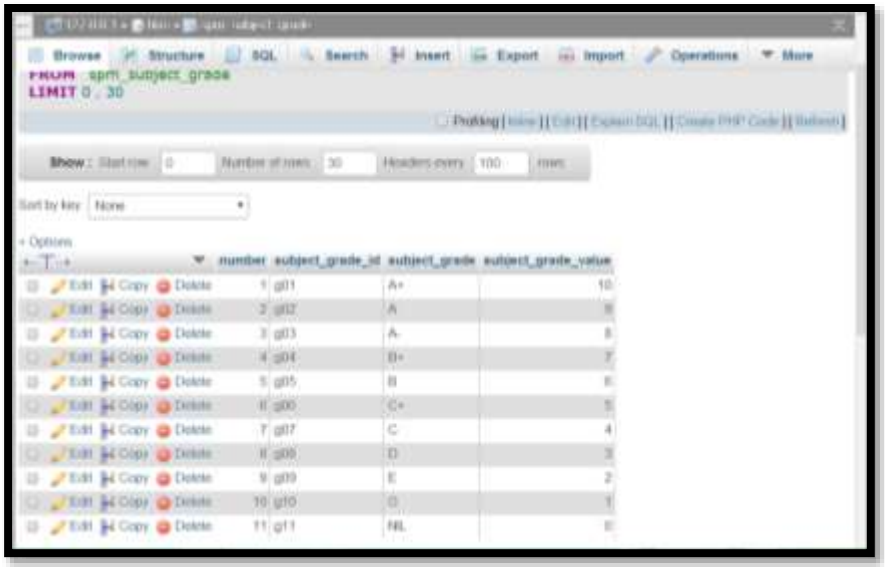
Preferred area of study	Level	Location	Recommendation (programme of study & university)
Engineering	Diploma	Central	Diploma Engineering -Uniten Putrajaya
		Central	Diploma Engineering -MMU Cyberjaya
		Southern	Diploma Engineering -MMU Melaka
	Foundation	Northern	Foundation Engineering -UTP Perak
		Central	Foundation Engineering -Uniten Putrajaya
		Central	Foundation Engineering -MMU Cyberjaya
		Southern	Foundation Engineering -MMU Melaka

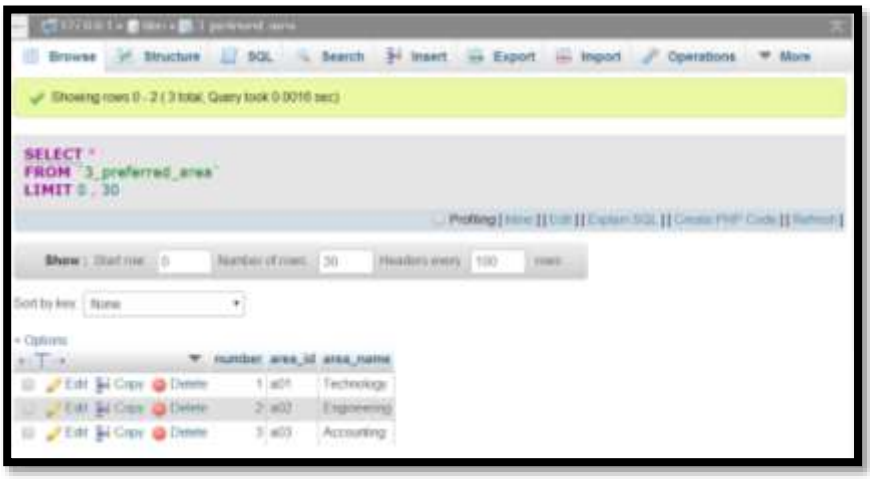
Preferred area of study	Level	Location	Recommendation (programme of study & university)
Accounting	Diploma	East Coast	Diploma Accounting -Uniten Muadzam Shah
		Southern	Diploma Accounting -MMU Melaka
	Foundation	East Coast	Foundation Accounting -Uniten Muadzam Shah

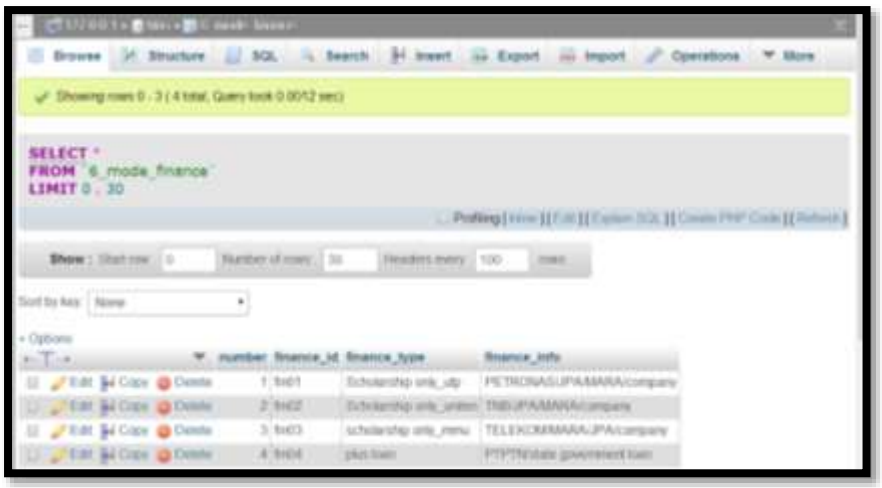
4.8 Creation of database for the system

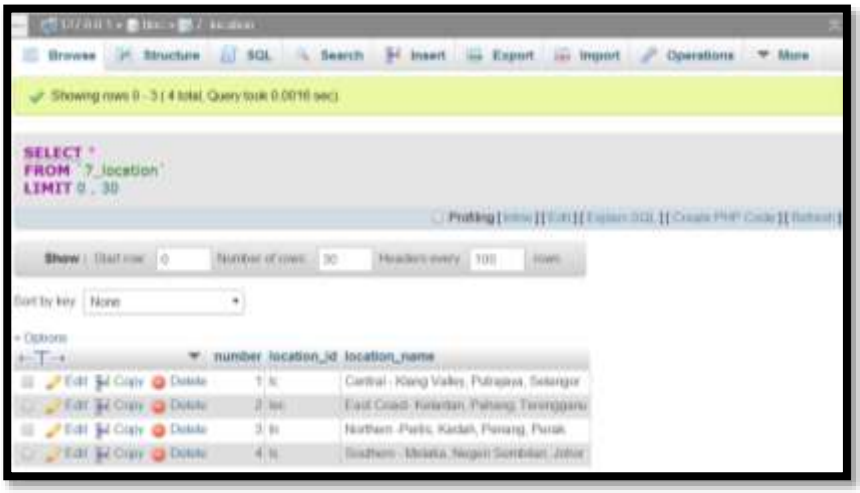


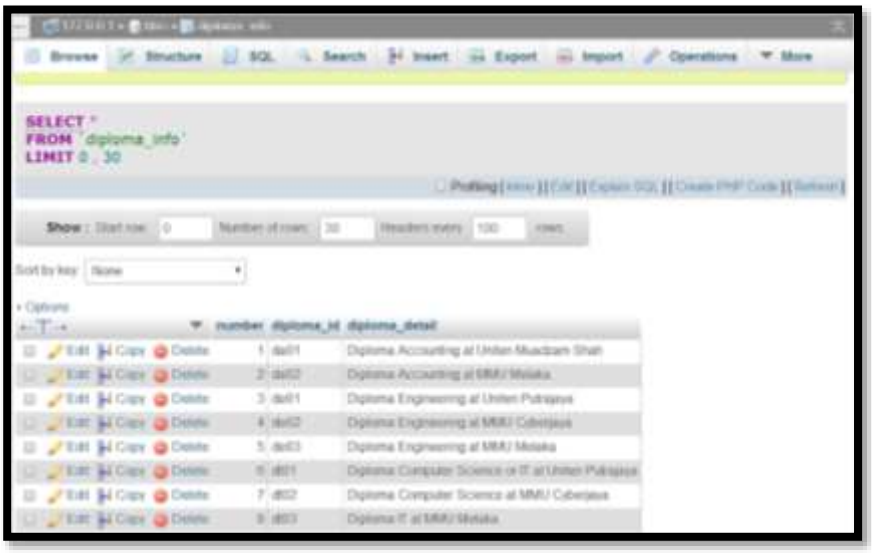


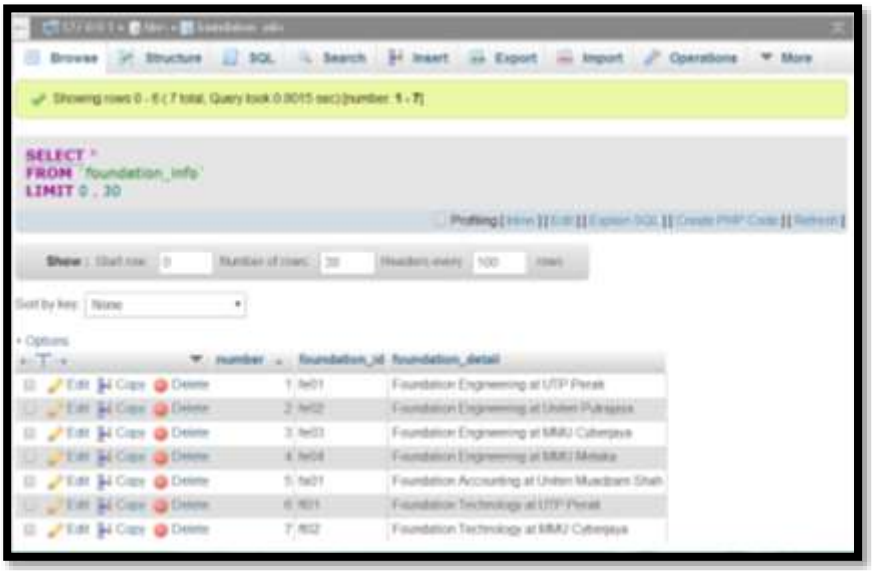



Browse
Structure
SQL
Search
Insert
Export
Import
Operations
More
Showing rows 0 - 2 (3 total, Query took 0.0010 sec)
SELECT *
FROM `3_preferred_area`
LIMIT 0 , 30
Profiling
Show :
Sort by key:
None
Options
number
area_id
area_name
Edit
Copy
Delete
1
a01
Technology
2
a02
Engineering
3
a03
Accounting

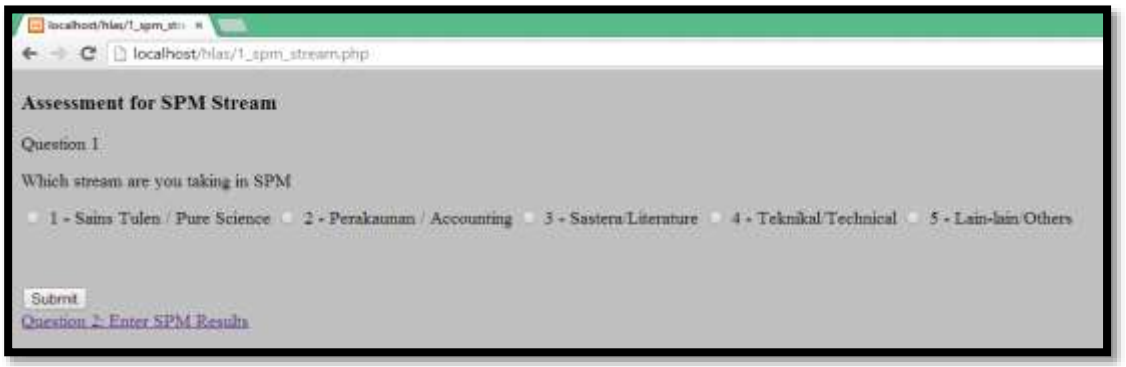

Browse
Structure
SQL
Search
Insert
Export
Import
Operations
More
Showing rows 0 - 3 (4 total, Query took 0.0012 sec)
SELECT *
FROM `6_mode_finance`
LIMIT 0 , 30
Profiling
Show :
Sort by key:
None
Options
number
finance_id
finance_type
finance_info
Edit
Copy
Delete
1
fin01
2
fin02
3
fin03
scholarship ints_mmu
TELEKOMMARA/JPA/company
4
fin04
plus loan

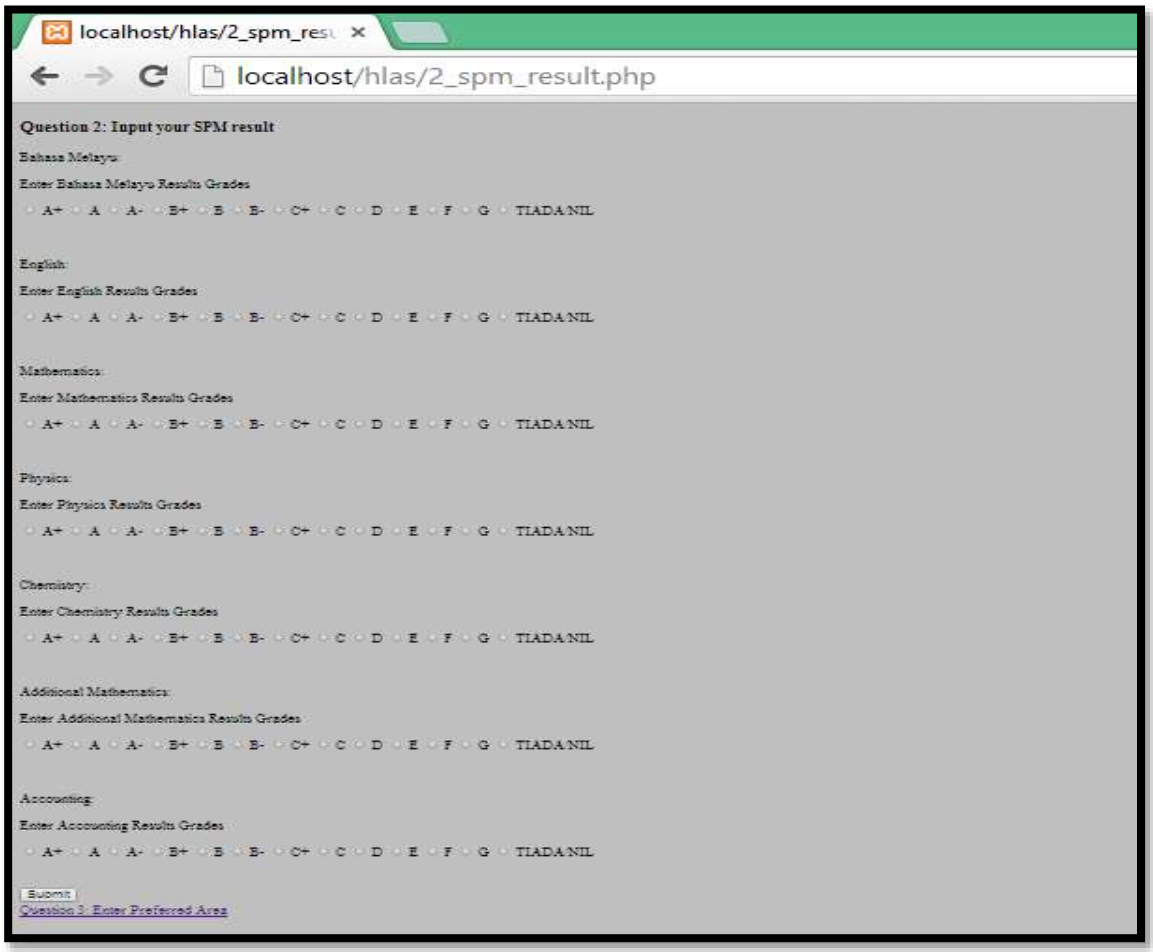

Browse
Structure
SQL
Search
Insert
Export
Import
Operations
More
Showing rows 0 - 3 (4 total, Query took 0.0016 sec)
SELECT *
FROM `7_location`
LIMIT 0 , 30
Profiling
Show :
Sort by key:
None
Options
number
location_id
location_name
Edit
Copy
Delete
1
lc
Central - Klang Valley, Putrajaya, Selangor
2
lc
East Coast- Kelantan, Pahang, Terengganu
3
lc
Northern -Perlis, Kedah, Penang, Perak
4
lc
Southern - Melaka, Negeri Sembilan, Johor

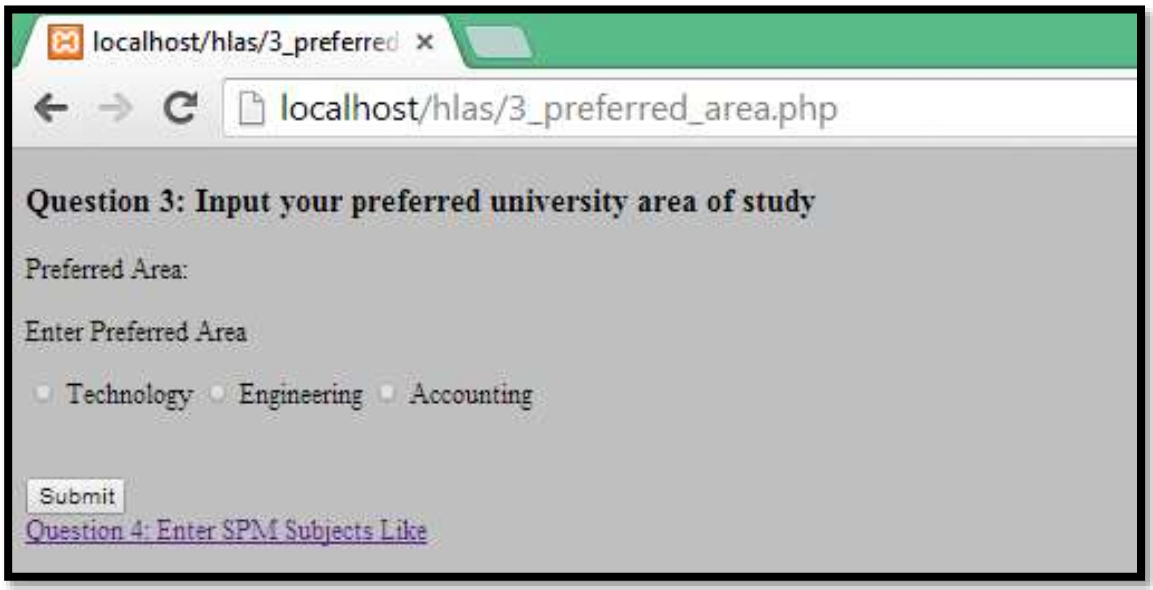

Browse
Structure
SQL
Search
Insert
Export
Import
Operations
More
SELECT *
FROM `diploma_info`
LIMIT 0 , 30
Show
Sort by key:
None
Options
number
diploma_id
diploma_detail
Edit
Copy
Delete
1 dip01 Diploma Accounting at Uniten Muadzam Shah
2 dip02 Diploma Accounting at MMU Melaka
3 dip01 Diploma Engineering at Uniten Putrajaya
4 dip02 Diploma Engineering at MMU Cyberjaya
5 dip03 Diploma Engineering at MMU Melaka
6 dip01 Diploma Computer Science or IT at Uniten Putrajaya
7 dip02 Diploma Computer Science at MMU Cyberjaya
8 dip03 Diploma IT at MMU Melaka

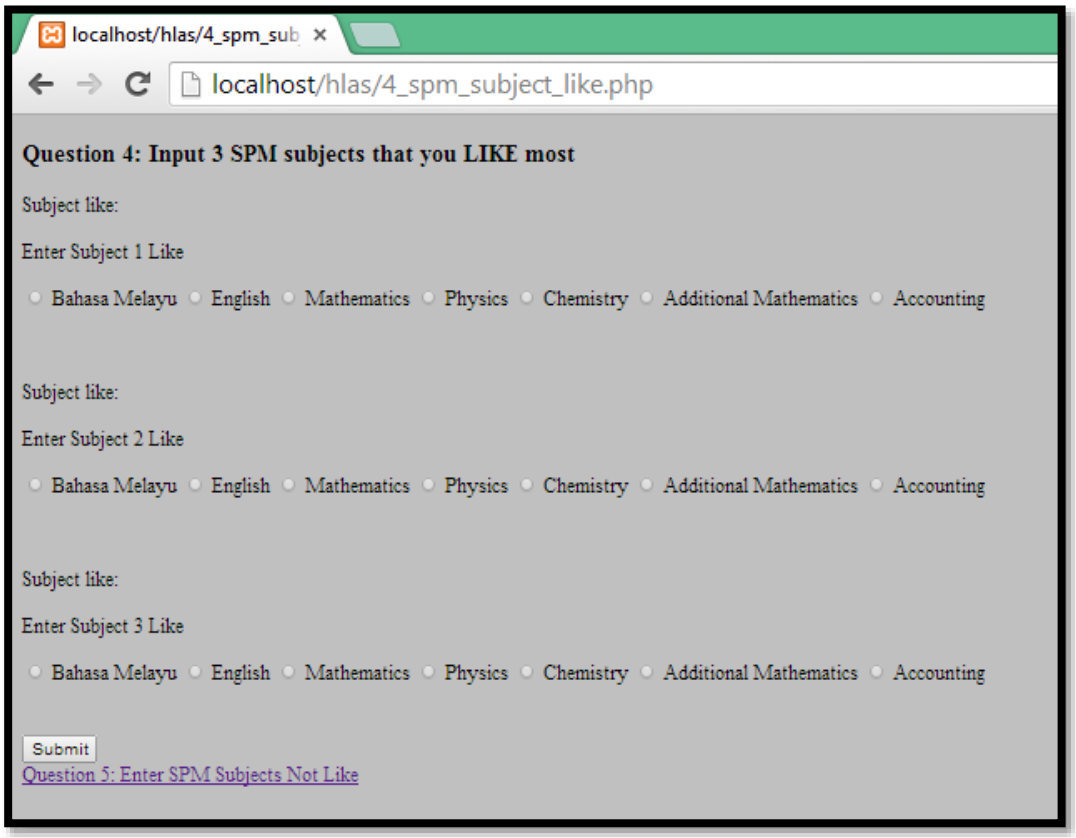

Browse
Structure
SQL
Search
Insert
Export
Import
Operations
More
Showing rows 0 - 6 (7 total, Query took 0.0015 sec) [number: 1 - 7]
SELECT *
FROM `foundation_info`
LIMIT 0 , 30
Show
Sort by key:
None
Options
number
foundation_id
foundation_detail
Edit
Copy
Delete
1 fe01 Foundation Engineering at UTP Perak
2 fe02 Foundation Engineering at Uniten Putrajaya
3 fe03 Foundation Engineering at MMU Cyberjaya
4 fe04 Foundation Engineering at MMU Melaka
5 fa01 Foundation Accounting at Uniten Muadzam Shah
6 ft01 Foundation Technology at UTP Perak
7 ft02 Foundation Technology at MMU Cyberjaya

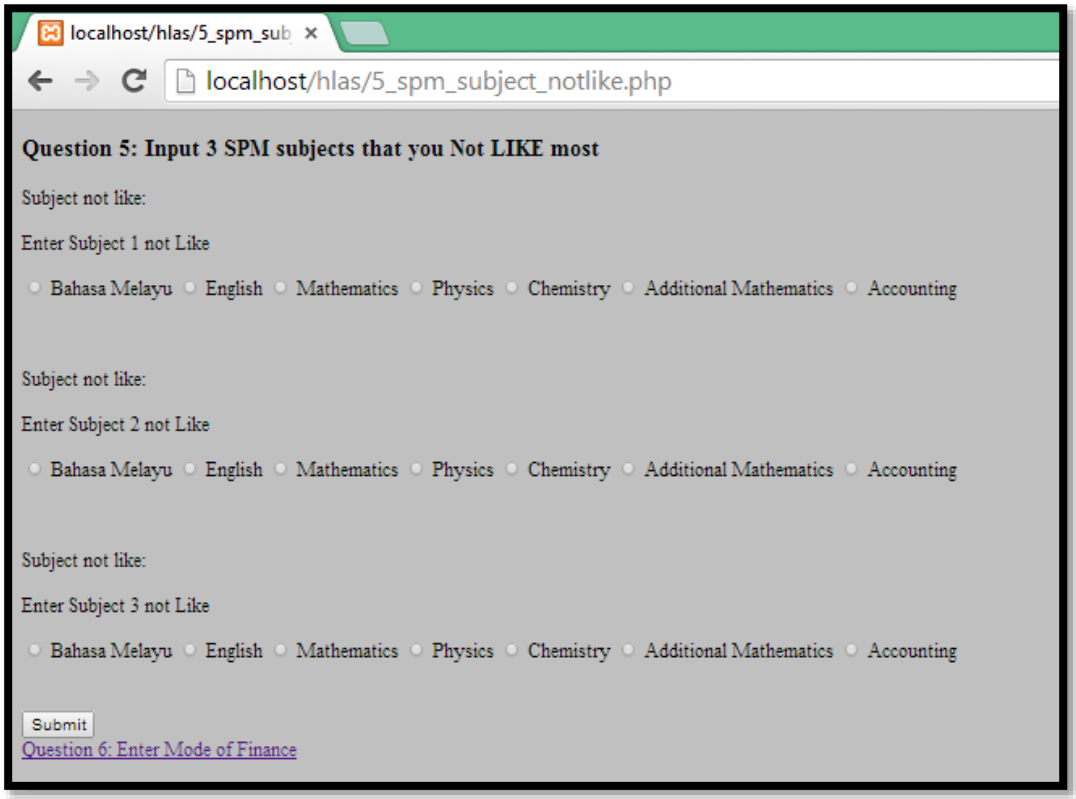
4.9 Finalized interface of the system

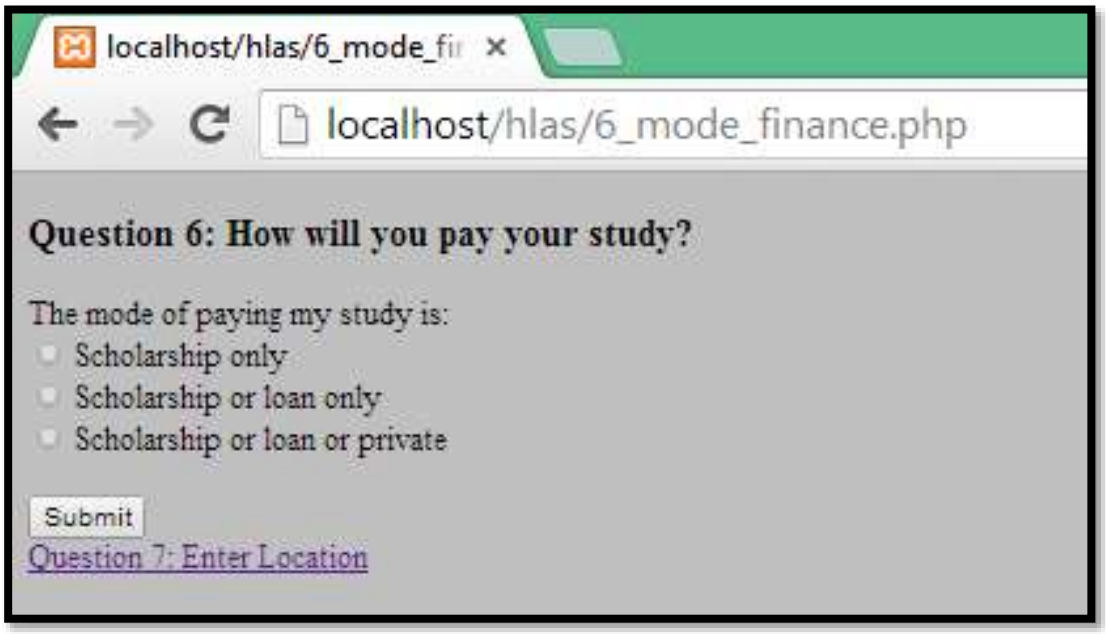


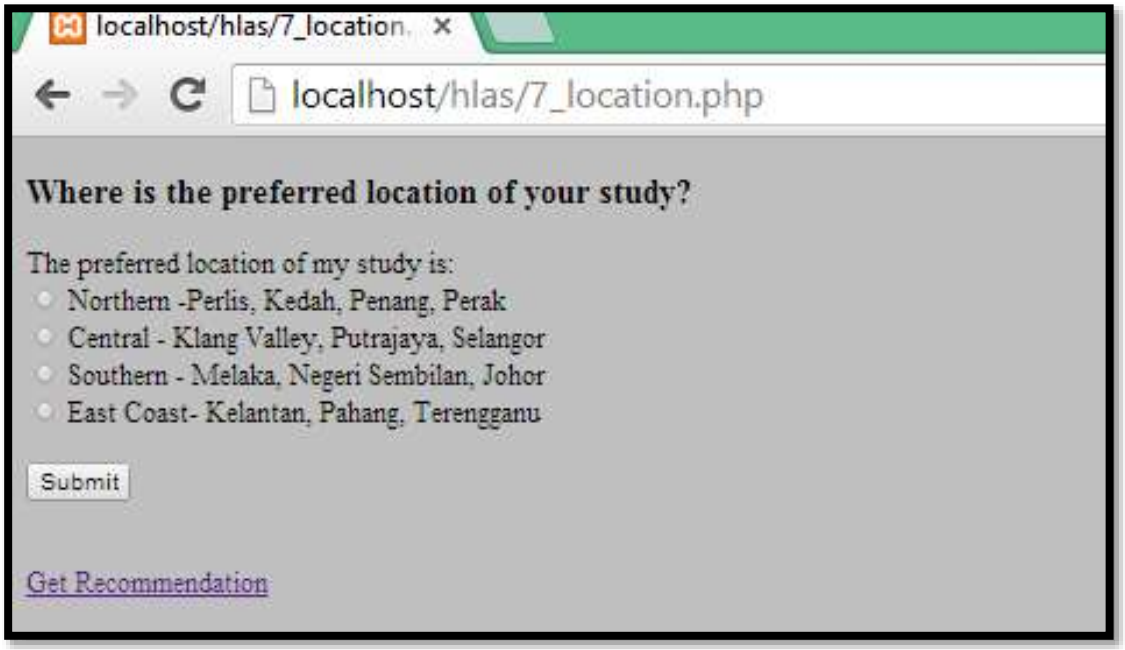

localhost/hlas/2_spm_resu
localhost/hlas/2_spm_result.php
Question 2: Input your SPM result
Bahasa Melayu:
Enter Bahasa Melayu Results Grades
A+ A A- B+ B B- C+ C D E F G TIADA NIL
English:
Enter English Results Grades
A+ A A- B+ B B- C+ C D E F G TIADA NIL
Mathematics:
Enter Mathematics Results Grades
A+ A A- B+ B B- C+ C D E F G TIADA NIL
Physics:
Enter Physics Results Grades
A+ A A- B+ B B- C+ C D E F G TIADA NIL
Chemistry:
Enter Chemistry Results Grades
A+ A A- B+ B B- C+ C D E F G TIADA NIL
Additional Mathematics:
Enter Additional Mathematics Results Grades
A+ A A- B+ B B- C+ C D E F G TIADA NIL
Accounting:
Enter Accounting Results Grades
A+ A A- B+ B B- C+ C D E F G TIADA NIL
Submit
Question 3: Enter Preferred Area

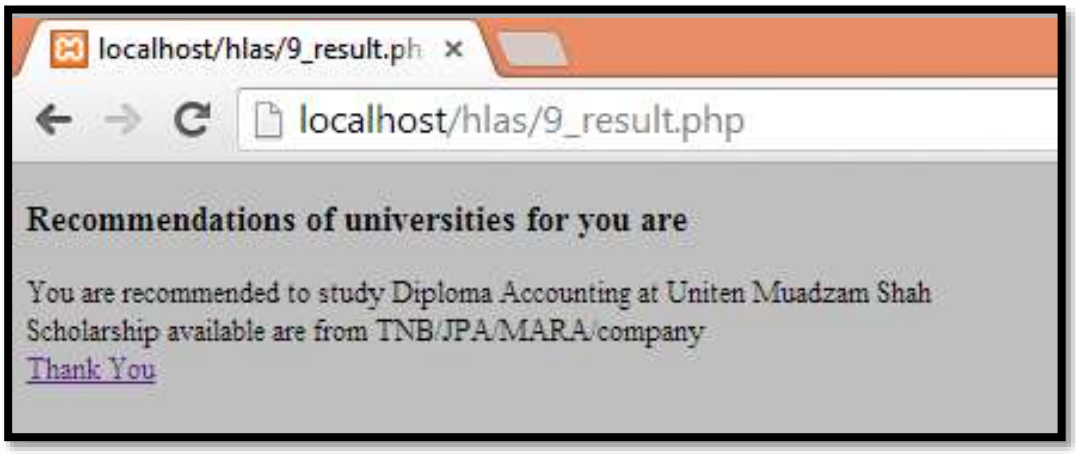

localhost/hlas/3_preferred
localhost/hlas/3_preferred_area.php
Question 3: Input your preferred university area of study
Preferred Area:
Enter Preferred Area
Technology Engineering Accounting
Submit
Question 4: Enter SPM Subjects Like

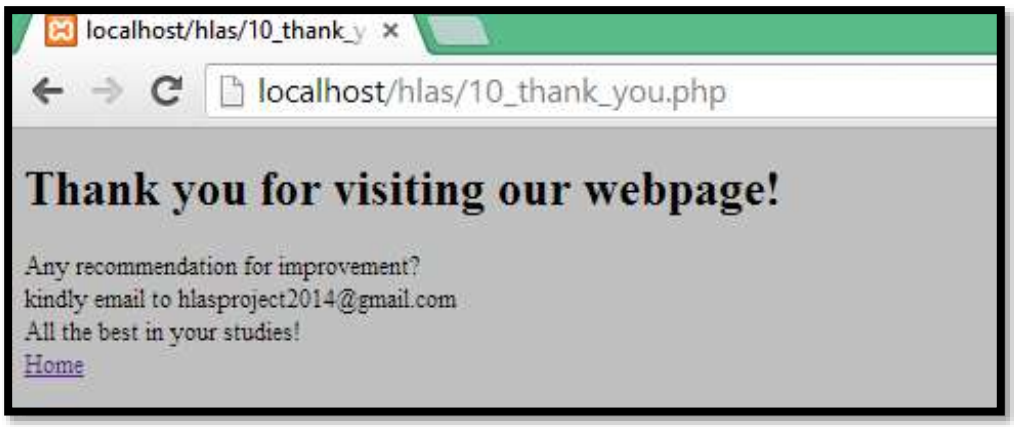

localhost/hlas/4_spm_sub
localhost/hlas/4_spm_subject_like.php
Question 4: Input 3 SPM subjects that you LIKE most
Subject like:
Enter Subject 1 Like
Bahasa Melayu English Mathematics Physics Chemistry Additional Mathematics Accounting
Subject like:
Enter Subject 2 Like
Bahasa Melayu English Mathematics Physics Chemistry Additional Mathematics Accounting
Subject like:
Enter Subject 3 Like
Bahasa Melayu English Mathematics Physics Chemistry Additional Mathematics Accounting
Submit
Question 5: Enter SPM Subjects Not Like


localhost/hlas/5_spm_sub
localhost/hlas/5_spm_subject_notlike.php
Question 5: Input 3 SPM subjects that you Not LIKE most
Subject not like:
Enter Subject 1 not Like
Bahasa Melayu English Mathematics Physics Chemistry Additional Mathematics Accounting
Subject not like:
Enter Subject 2 not Like
Bahasa Melayu English Mathematics Physics Chemistry Additional Mathematics Accounting
Subject not like:
Enter Subject 3 not Like
Bahasa Melayu English Mathematics Physics Chemistry Additional Mathematics Accounting
Submit
Question 6: Enter Mode of Finance


localhost/hlas/6_mode_fi
localhost/hlas/6_mode_finance.php
Question 6: How will you pay your study?
The mode of paying my study is:
Scholarship only
Scholarship or loan only
Scholarship or loan or private
Submit
Question 7: Enter Location


localhost/hlas/7_location.
localhost/hlas/7_location.php
Where is the preferred location of your study?
The preferred location of my study is:
Northern -Perlis, Kedah, Penang, Perak
Central - Klang Valley, Putrajaya, Selangor
Southern - Melaka, Negeri Sembilan, Johor
East Coast- Kelantan, Pahang, Terengganu
Submit
Get Recommendation


localhost/hlas/9_result.ph
localhost/hlas/9_result.php
Recommendations of universities for you are
You are recommended to study Diploma Accounting at Uniten Muadzam Shah
Scholarship available are from TNB/JPA/MARA/company
Thank You


localhost/hlas/10_thank_y
localhost/hlas/10_thank_you.php
Thank you for visiting our webpage!
Any recommendation for improvement?
kindly email to hlasproject2014@gmail.com
All the best in your studies!
Home

CHAPTER 5
CONCLUSION & RECOMMENDATION

As a conclusion, the proposed system will then assist its users in recommending which universities suit them well. The system will be really useful and change the way of the students deciding on their future, not merely based on their reading only or people's suggestion based on the people's past experience which might not up to date to latest university requirements.

It is recommended that the research works for the project will continues with its development and linked with database as well as the best algorithm to process the recommendation, which will results in full functionality of the system.

It would be better if the system can include more recommendation based on wider choice of universities, which in reality will be a big assistance to the high school leavers.

REFERENCES

Abd Rahman, Z. (1986). The Attitudes of Students and their Parents towards Vocational Education. Pertanika, 9(3), 423-430.

Adomavicius, G., & Tuzhilin, A. (2005). Toward the next generation of recommender systems: A survey of the state-of-the-art and possible extensions. Knowledge and Data Engineering, IEEE Transactions on, 17(6), 734-749.

Awang, M. (2012). An exploration of strategies used by Malaysian secondary school teachers to promote positive behaviour.

Esa, A., Razzaq, A. R. A., Masek, A., & Selamat, A. (2009). The perception of students towards the community colleges' courses that offered in Malaysia.Asian social science, 5(7), P98.

Fernandez, J. L. (2010). An exploratory study of factors influencing the decision of students to study at Universiti Sains Malaysia. Kajian Malaysia, 28(2), 107-136.

Sharifah Nurulhikmah et.al. (2009) F. S. K. dan Matematik, & Kampus, K.T. Determining the Preferences among the High School Students Towards the Local Malaysian Public Universities: A Case Study. International Journal of Soft Computing, 4(5), 215-222.

Gysbers, N. C. (2008). Individual student planning in the United States: Rationale, practices and results. Asian Journal of Counseling, 15(2), 117-139.

Haron, S., Jaafar, W. M. W., & Baba, M. (2010). The influence of school climate towards counselor's self-efficacy. *Procedia-Social and Behavioral Sciences*, *5*, 445-448.

J. Bobadilla, F. Ortega, A. Hernando, A. Gutiérrez (2012)
Universidad Politécnica de Madrid, Ctra. De Valencia, Km. 7, 28031 Madrid, Spain

Lister James L (1969), Characteristics of the Modern School Counsellor published by Association for Supervision and Curriculum Development.

Low, S. K., Kok, J. K., & Lee, M. N. (2013). A holistic approach to school-based counselling and guidance services in Malaysia. *School Psychology International*, *34*(2), 190-201.

Teichler, U. (1997). Higher education in Japan: A view from outside. *Higher Education*, *34*(2), 275-298.

Terreen,L. and Hill,W.(2001).AT&T Labs-Research.In HCI In The New Millenium, Jack Corroll,ed.,Addison-Wesley.

BIBLIOGRAPHY

American Counseling Association (2007) Effectiveness of School Counseling.

Article of Utusan Malaysia , August 30, 2012 : "Cabaran beri tempat ikut minat" retrieved from http://www.utusan.com.my/utusan/Rencana/20120830/re_01/Cabaran-beri-tempat-ikut-minat#.UEQZ4ftPPE8.facebook

Lau, P. S., & Fung, S. C. (2008). School guidance and counseling in an international context: a reaction paper. Asian Journal of Counselling, 15(2), 207-228.

Lin, W., Alvarez, S. A., & Ruiz, C. (2002). Efficient adaptive-support association rule mining for recommender systems. Data mining and knowledge discovery,6(1), 83-105.

Massa, P., & Avesani, P. (2007, October). Trust-aware recommender systems. In Proceedings of the 2007 ACM conference on Recommender systems (pp. 17-24). ACM.

Ma, H., Zhou, D., Liu, C., Lyu, M. R., & King, I. (2011, February). Recommender systems with social regularization. In Proceedings of the fourth ACM international conference on Web search and data mining (pp. 287-296). ACM.

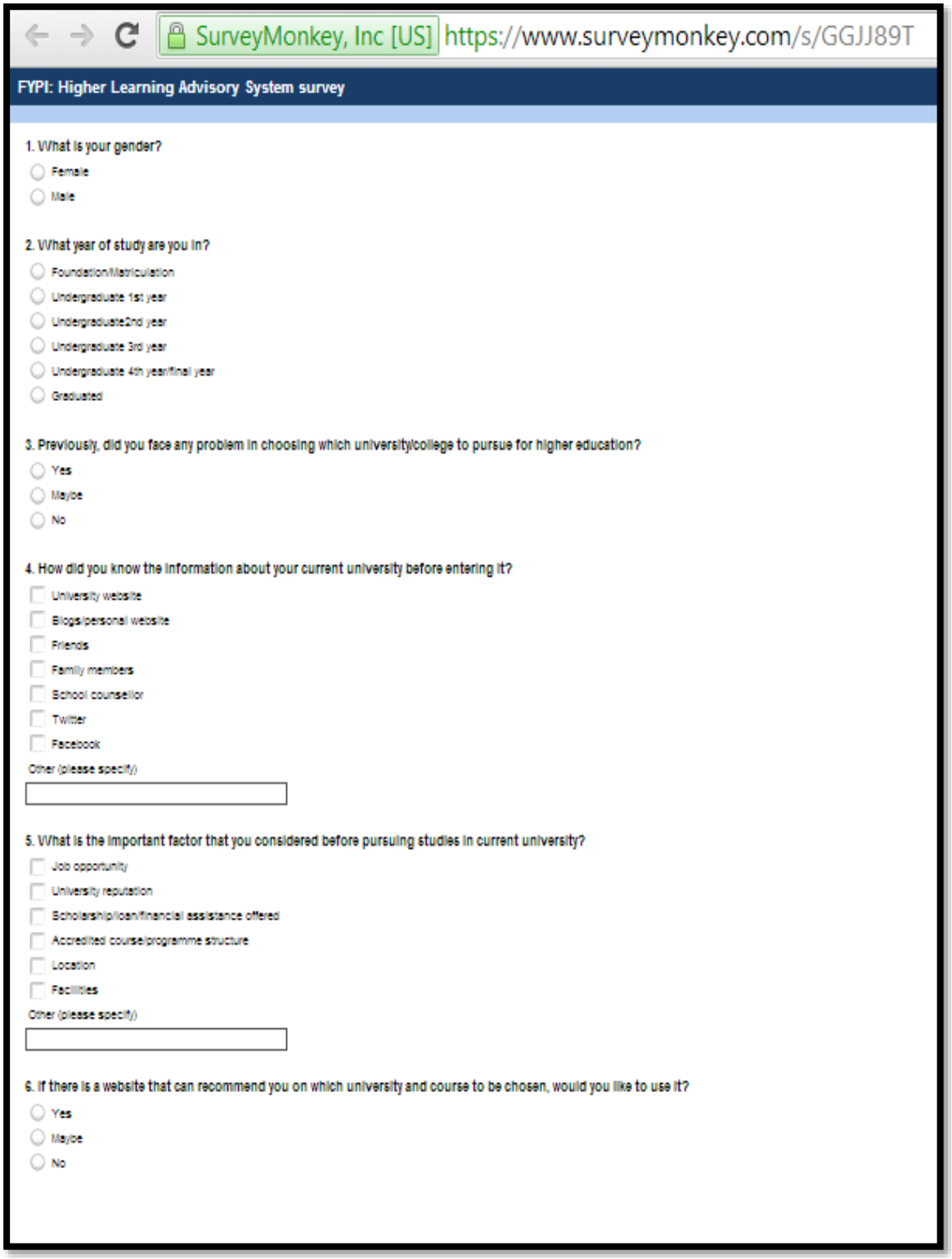
Oard, D. W., & Kim, J. (1998, July). Implicit feedback for recommender systems. In Proceedings of the AAAI workshop on recommender systems (pp. 81-83). Wollongong.

Teck, S. H., & Lai, Y. L. (2011). An Empirical Analysis of Malaysian Pre-university Students' ICT Competency Gender Differences. *International Journal of Network and Mobile Technologies*, *2*(1).

Yasin, S., binti Mohamad, N. M., & bin Mamat, M. Malaysian University Selection DSS for STPM Leavers: MADM Approaches.

APPENDICES

Appendix 01: Questionnaire being used for survey



SurveyMonkey, Inc [US] https://www.surveymonkey.com/s/GGJJ89T

FYPI: Higher Learning Advisory System survey

1. What is your gender?
   - Female
   - Male

2. What year of study are you in?
   - Foundation/Matriculation
   - Undergraduate 1st year
   - Undergraduate2nd year
   - Undergraduate 3rd year
   - Undergraduate 4th year/final year
   - Graduated

3. Previously, did you face any problem in choosing which university/college to pursue for higher education?
   - Yes
   - Maybe
   - No

4. How did you know the information about your current university before entering it?
   - University website
   - Blogs/personal website
   - Friends
   - Family members
   - School counsellor
   - Twitter
   - Facebook

   Other (please specify)

5. What is the important factor that you considered before pursuing studies in current university?
   - Job opportunity
   - University reputation
   - Scholarship/loan/financial assistance offered
   - Accredited course/programme structure
   - Location
   - Facilities

   Other (please specify)

6. If there is a website that can recommend you on which university and course to be chosen, would you like to use it?
   - Yes
   - Maybe
   - No