

**Automated Personality Inventory System**

by

Mohd Aziezie bin Sidek

Dissertation submitted in partial fulfillment of  
the requirement for the  
Bachelor of Technology (Hons)  
(Information Communication Technology)

JAN 2008

Universiti Teknologi PETRONAS  
Bandar Sri Iskandar  
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Perak Darul Ridzuan

CERTIFICATION OF APPROVAL

**Automated Personality Inventory System**

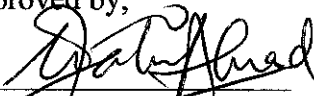
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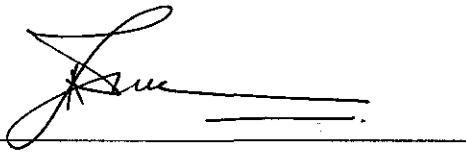
Approved by,



DR. WAN FATIMAH WAN AHMAD  
UNIVERSITI TEKNOLOGI PETRONAS  
TRONOH, PERAK  
January 2008

## 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.

A handwritten signature in black ink, appearing to read 'Mohd Aziezie Bin Sidek', is written over a horizontal line. The signature is stylized with a large initial 'M' and a long horizontal stroke.

MOHD AZIEZIE BIN SIDEK

## **ABSTRACT**

An automated Personality Inventory system is a system that will help organization, managers, or people to understand the personality of someone. The system is called SMN Personality Inventory Solution. This system will help to improve the quality of employee. Currently, the traditional system of personality inventory test is not very practical as the user has to wait for quite a number of times before getting the results. The objective is to develop an automate Personality Inventory system that can be use as the assessment tool for any organization especially for the Human Resource Department to assess their employee. The system will focus on Sidek's Personality Inventory (IPS) as the personality inventory. IPS has been developed to determine the characteristic of individual personality trets. The methodology used in developing this system is Spiral model as few prototypes have to be developed before come out with the final system. The system will be developed using an Open Source web programming language such as Hypertext Preprocessor (PHP) or Java. The system will also use MySQL as the database server. The web server for this system will be Apache. As the conclusion, the system will be beneficial to all organizations, employers and also employee. As for the organization and employee, they can use this system to filters up the candidate that want to work for their company. Organization and employer can know with ease the individual that is qualified for the job that they advertise. As for the employee or student or anyone, they can know their personality type and can improve themselves from there.

## ACKNOWLEDGMENT

Assalamualaikum W.B.T and good day,

Finally it has come to the end, the completion of my Final Year Project also mean the end of my study experience in University Technology of Petronas. I have spent five years in UTP and it is hard to think that I have to leave it soon.

To all who have helped me a lot with my Final Year Project,

Dr. Wan Fatimah Wan Ahmad,  
Prof. Madya Dr. Sidek Mohd Noah,

Abidah Bte Omar

My siblings,

Mohd Azim bin Zainuddin,

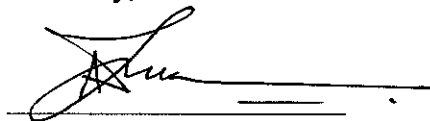
Marlina Omar,

and

To all my friends

Thank you very much from the bottom of my heart.

Sincerely,



MOHD AZIEZIE BIN SIDEK

## **ABBREVIATION (S)**

IPS	Sidek's Personality Inventory
IT	Information Technology
HCI	Human Computer Interaction
PHP	Hypertext Preprocessor

## TABLE OF CONTENTS

<b>TITLE PAGE</b>	. . . . .	i
<b>CERTIFICATION OF APPROVAL</b>	. . . . .	ii
<b>CERTIFICATION OF ORIGINALITY</b>	. . . . .	iii
<b>ABSTRACT</b>	. . . . .	iv
<b>ACKNOWLEDGMENT</b>	. . . . .	v
<b>ABBREVIATION (S)</b>	. . . . .	vi
<b>CHAPTER 1:</b>	<b>INTRODUCTION</b>	
	1.1 Background . . . . .	1
	1.2 Problem Statement . . . . .	2
	1.2.1 Problem Identification . . . . .	2
	1.2.2 Significant of the project . . . . .	3
	1.3 Objectives and Scope of Study . . . . .	3
	1.3.1 Objectives . . . . .	3
	1.3.2 Scope of Study . . . . .	3
	1.4 Limitations . . . . .	4
<b>CHAPTER 2:</b>	<b>LITERATURE REVIEW . . . . .</b>	<b>5</b>
<b>CHAPTER 3:</b>	<b>METHODOLOGY . . . . .</b>	<b>11</b>
	3.1 Research Methodology . . . . .	11
	3.2 Project Activities . . . . .	12
	3.3 Tools . . . . .	13

<b>CHAPTER 4:</b>	<b>RESULTS AND DISCUSSION</b>	.	.	.	.	.	14
	4.1 Results						
	4.1.1 System Interface	.	.	.	.	.	14
	4.1.2 IPS Questionnaire.	.	.	.	.	.	21
	4.1.3 Score sheet and Calculation for IPS	.	.	.	.	.	22
	4.2 Discussion.	.	.	.	.	.	24
<b>CHAPTER 5:</b>	<b>CONCLUSION</b>	.	.	.	.	.	26
<b>REFERENCES</b>	.	.	.	.	.	.	27
<b>APPENDICES:</b>	.	.	.	.	.	.	28
	<b>APPENDIX A</b>	.	.	.	.	.	30
	<b>APPENDIX B</b>	.	.	.	.	.	32



## LIST OF FIGURES

Figure 2.1: Jung Typology Test Interface . . . . .	8
Figure 2.2: Jung Typology Test Interface 2 . . . . .	8
Figure 2.3: Jung Typology test result page . . . . .	9
Figure 3.1: Methodology . . . . .	11
Figure 4.1: Prototype 1 . . . . .	15
Figure 4.2: Prototype 2 . . . . .	15
Figure 4.3: Prototype 3 . . . . .	16
Figure 4.4: Prototype 1 IPS Question page . . . . .	17
Figure 4.5: Prototype 2 IPS Question page . . . . .	17
Figure 4.6: Prototype 1 IPS Result Page . . . . .	18
Figure 4.7: Prototype 2 IPS Result Page . . . . .	18
Figure 4.8: Prototype 2 Graph . . . . .	19
Figure 4.9: Navigation Map . . . . .	20

## LIST OF TABLES

TABLE 4.1: Score sheet . . . . .	22
TABLE 4.2: Personality Profile . . . . .	24

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Nowadays, personality inventories were used globally by many big organizations in order to hire a good quality employee. Big organization such as PETRONAS can used these personality inventories to help them filters up the candidate that they wanted. Personality inventory is used as part of a self assessment done for career planning purposes. The test results can be enormously helpful when determining the kind of career of candidate that they might like to pursue. Understanding the candidate personality type will improve their chance of being happy of their work. This will decrease the amount of turnover in an organization.

Sidek Personality Inventory (IPS) is an assessment tool used to determine which of these personality types a person falls into:

- Aggressive
- Analytical
- Autonomy
- Depending
- Extroverted
- Introverted
- Intellectual
- Variety
- Endurance
- Self-critics
- Controlling
- Helping
- Supportive
- Structure
- Achievement
- Honesty.

## **1.2 Problem Statement**

### **1.2.1 Problem Identification**

Organizations want the best people to work for them. To archive that objective they cannot only rely on the resume itself. Sometimes people with good and tempting resume might not as good as they claimed. Candidate can cheat on their resume to make it look impressive to the eye of the organization they wanted to work with. This is actually a problem for many organizations out there that are seeking for the best people because they have to waste a lot of time and money reviewing an application from the person that actually does not suitable for the job. This is where personality inventory came in handy because it helped employer to analyze and filters out person who is not suitable for the job. However, good and reliable personality inventories are hard to find. Furthermore, most of the test has to be done manually, which mean the organization must have the psychologist to assist the test. This is not practical for the psychologist and also for the organization. Therefore, Automated Personality Inventories should be created to counter this problem.

The concept of using the personality inventories is easy, for example if the employer is looking for a good salesperson, they must choose someone that fall in extroverted personality type. Extroverted personality person are much more outgoing and does not shame to talk, so when there is two candidates who have equal academic qualification, but different personality, it easy for the employer to choose one. Apart from that, personality inventory will help student to make a choice on what career they should choose. Student always have a difficulty to make a choice on their own on what they should be when graduated. By understand their own personality; they are more likely to succeed in their work.

### **1.2.2 Significant of the project**

Conventionally done, IPS test will need to have a conducive room. The time taken to complete the whole test is about 20 to 30 minutes. In order to get the precise results, each individual have to answer the entire question honestly. The aim of the research is to automate Sidek Personality Inventory (IPS) so that it can be done in much more efficient way and time saving.

The results will include with all the necessary information about the candidate personality. It will be included with graph, summary and also recommendations. This is a hectic process if there are many candidates need to be process, but by automated the inventory; it will be a great tool for any employer to find a high quality employee.

## **1.3 Objectives & Scope of Study**

### **1.3.1 Objectives:**

- To develop an automate Personality Inventory system that can be use as the assessment tool for any organization especially for the Human Resource Department to assess their employee.
- To aid individual to find a perfect career path.
- To research on the guidelines of a suitable website to be applied to the system.

### **1.3.2 Scope of Study**

The scope of this project is to automate one of the personality inventories developed by Associate Professor Dr. Sidek Mohd Noah. IPS is one of the most successful personality inventories that can determine what kind of personality an individual has and also suggest suitable jobs. It is important to understand the concept

and how it works so that the system will provide user with an accurate output or information.

In this project, a web-based system will be developed to automate the conventional personality inventories system. This system will interact with user and user can know their personality type and also what is the most suitable job for them. The system will be solely develop using Open Source technology, which consists of Open Source web programming language (PHP) or JavaScript, Open Source database (MySQL), and also Open Source Web Server (Apache). The importance of using Open Source technologies is to reduce the development cost and also make light of the adoption cost when the system completed near future.

Web-based system is acknowledged to be easily use and can also be scalable. The question that may be appeared in mind while having a system based on open source is the security. However, there is ongoing research by the community for providing a safe and reliable security options. A web based system also easy to apply through a network, either locally or globally. Security issues is one of the scope that need to be focus during the development of this project. This is because, the system involved with a lot of personal data that must not be distributed freely without the individual concern. When the system can be access online, it is vulnerable to attack from hackers, virus, Trojan or worms. So the security of the system is important to protect the integrity of the system.

#### **1.4 Limitations of Study**

The system is currently on Bahasa Malaysia because the personality inventory used is written in Bahasa Malaysia.

## **CHAPTER 2**

### **LITERATURE REVIEW AND THEORY**

The tools that the author will automate are widely known in Malaysia. It is commonly used by counselor for the career counseling. As stated clearly in the previous chapter, personality inventory is a very useful tool for employer to search for a good quality candidate. With the use of this tool, any big organizations can choose the right person for the job. The employees are more likely to perform better because he/she like their job very well. Below are several articles or review that will support the important and benefits of personality inventory.

Personality inventory is a measurement tools to identify the characteristic or traits of an individual. There are 2 types of personality inventory, projective and non projective. Projective is the used of images or pictures to identify the personality of individual based on the responsesd to the images. It is subjective. As for the non projective type, the item used are words or statement instead of using images or picture. The non projective type will be used throughout this project.

As stated in the Univeristi Putra Malaysia website (<http://www.educ.upm.edu.my/direktori/sidek.htm>), Sidek Personality Inventory (IPS), Sidek Vocational Interest Inventory (IMKS) and Sidek Vocational Value Inventory (INPS), and Color Personality Inventory (IPW) are widely used among the counselors in Malaysia particularly in career counseling. This proved that the tools chosen have a great quality and well known.

Eighty-four managers who make hiring decisions in 1 of 6 occupations representative of Holland's (1973) 6 job typologies (medical technologist, insurance sales agent, carpenter, licensed practical nurse, reporter, and secretary) rated 39 hypothetical job applicants on 2 dependent variables, hireability and counter-productivity. Applicants were described on the Big Five personality factors (Emotional Stability, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness) and on general mental ability. Results showed that general mental ability and conscientiousness were the most important attributes related to applicants' hireability and that Emotional Stability, Conscientiousness, and Agreeableness were the most important attributes related to counter productivity. In most respects, these results mirror meta-analytic reviews of validity studies, thereby confirming hypotheses. (Department of Psychology, Coe College, USA)

In a recent discussion of the bandwidth-fidelity dilemma in personality measurement for personnel selection, Ones and Viswesvaran (1996) concluded that broader and richer personality traits will have higher predictive validity than narrower traits. In this paper, the arguments made by Ones and Viswesvaran (1996) in favor of the exclusive use of broad personality dimensions are discussed. New data are presented that contradict their claim of the existence of a general, integrity-related personality factor, and that show two narrow measures - the Responsibility and Risk Taking scales of the Jackson Personality Inventory - to have *higher* validities than the Big Five dimensions with respect to job performance criteria based on self-reported workplace delinquency in a sample of 127 entry-level employees. (John Wiley & Sons, 1998)

Response distortion (RD), or faking, among job applicants completing personality inventories has been a concern for selection specialists. In a field study using the NEO Personality Inventory, the authors show that RD is significantly greater among job applicants than among job incumbents, that there are significant individual differences in RD, and that RD among job applicants can have a significant effect on who is hired. These results are discussed in the context of recent studies suggesting that RD has little effect on the predictive validity of personality inventories. The authors

conclude that future research, rather than focusing on predictive validity, should focus instead on the effect of RD on construct validity and hiring decisions.

(Rosse, Stecher, and Miller, 2001)

As employers start to hire again, they are increasingly taking steps to ensure that the hires they make are a good fit--not only with the job description but also with the people with whom they'll be working. (*Frieswick, 2004*). As stated by Frieswick in *Magazine of Senior Financial Executive*, it is important that employer must choose the right individual to do a certain job because it is really matter. Making a bad hire can cost from 30 to 150 percent of an employee's salary, depending on the person's position in the company. This is why it is important to know if the individual that we want to hire is capable or not.

There are a few online personality inventories on the Internet; one example is HUMANMETRICS Jung Typology Test (<http://www.humanmetrics.com/cgi-win/JTypes1.htm>). This test is based on Carl Jung and Isabel Myers-Briggs typological approach to personality.

Jung Typology Test does provide with a good personality test. It focuses on the Big 5 personality traits. Compared to Sidek's Personality Inventories, Jung Typology Test has only 5 personality traits that can be analyze while IPS has 16 personality traits it can analyze. In term of range, IPS will provide much more information compare to Jung Typology Test.



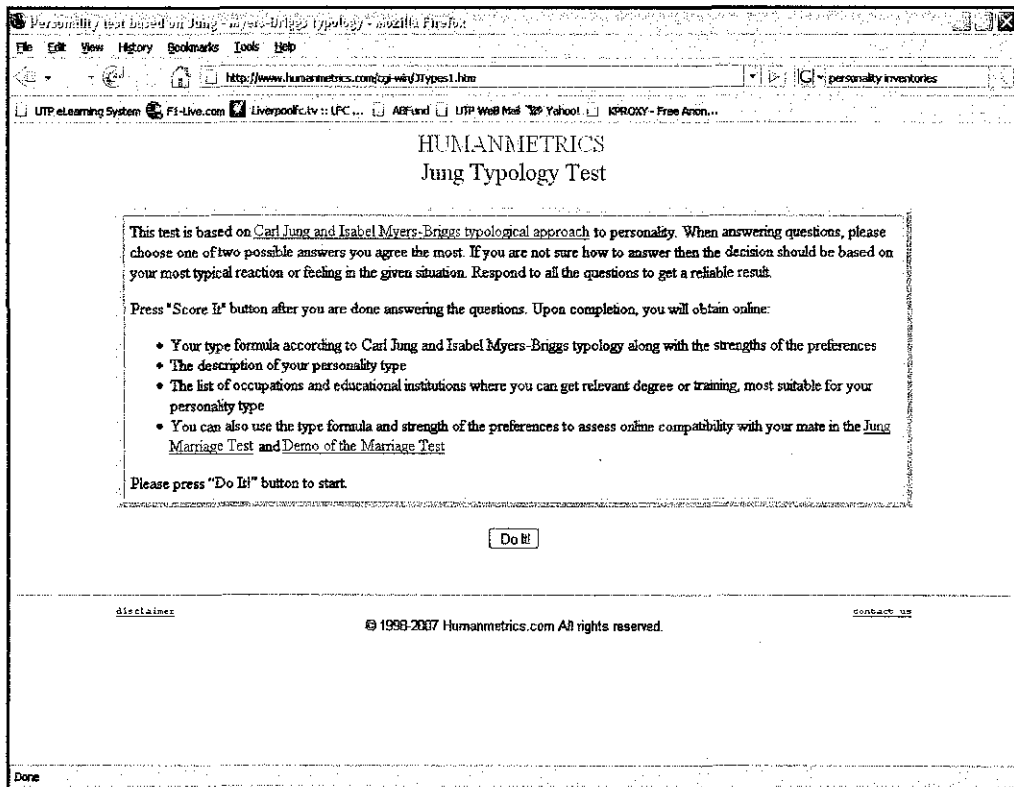


Figure 2.1: Jung Typology Test Interface

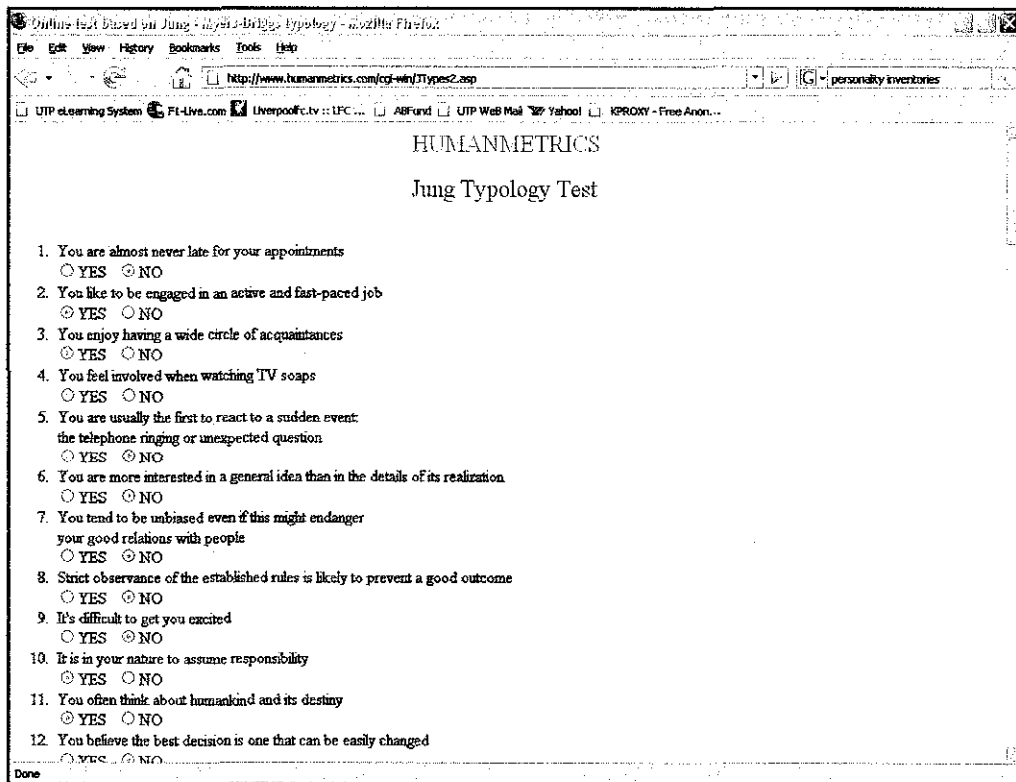
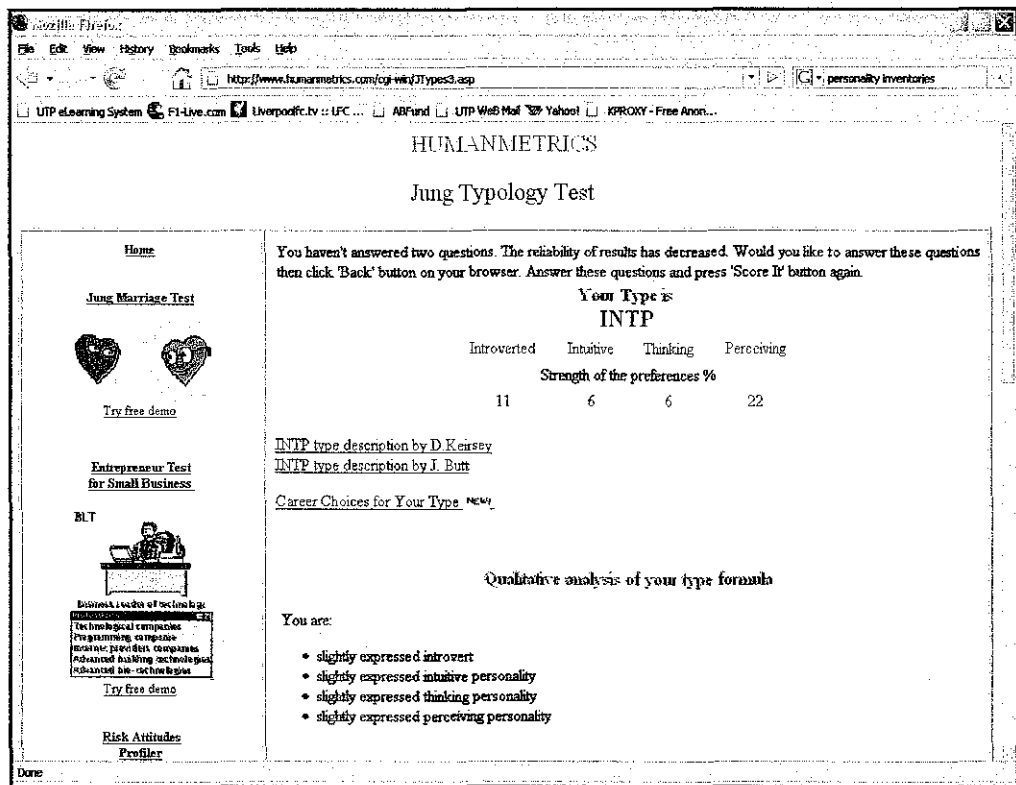


Figure 2.2: Jung Typology Test Interface 2



**Figure 2.3: Jung Typology test result page**

According to my research, in order to develop a good website there are numbers of characteristic need to be look into. The first important characteristic is to make sure that the website is usable by everyone if possible. Kelly's in his website (<http://iteslj.org/Articles/Kelly-Guidelines.html>) has suggested that the system must work on any browser. This is important because bared in mind that there are many types of browser used by the user such as Internet Explorer, Mozzila Firefox, Opera, Netscape and many more. The SMN Psychological Solutions has been tested on all of the browser and work well.

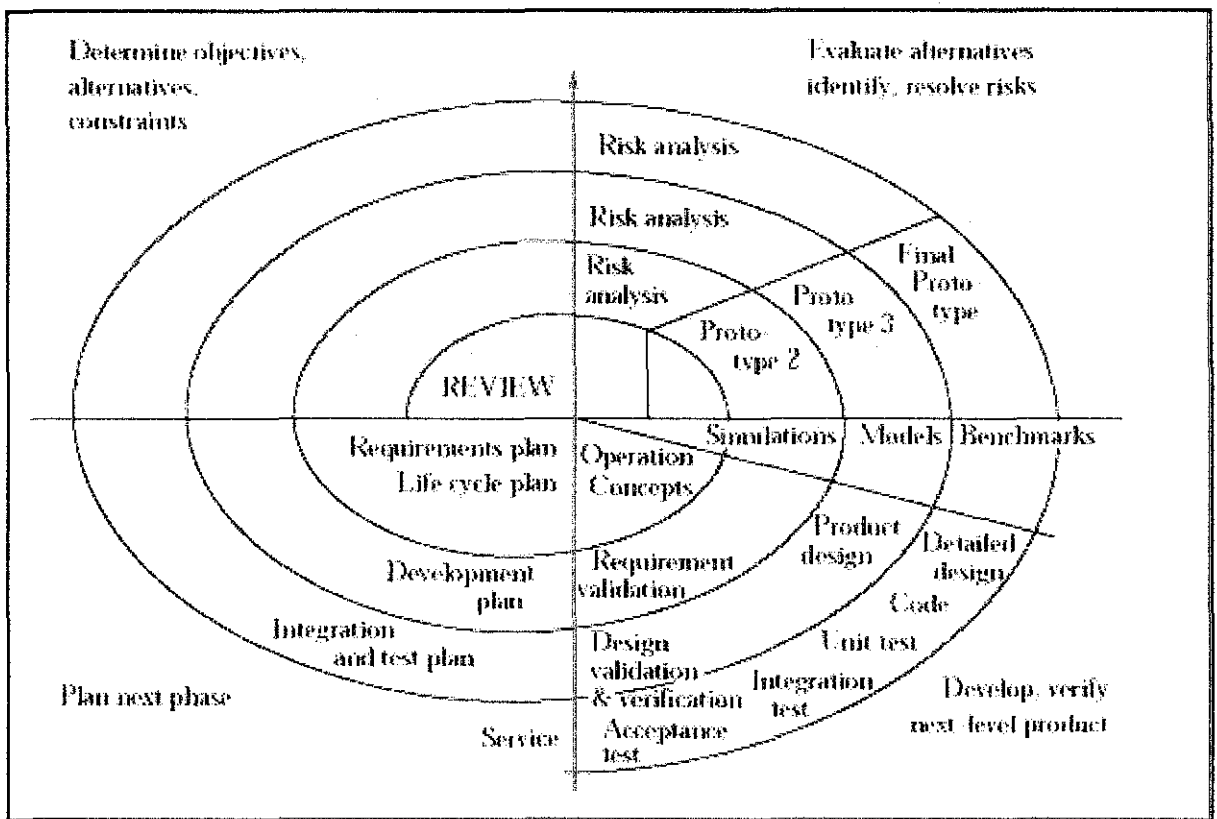
The second characteristic or factor that needs to be considered is to make the website to be as fast as possible. In order to do so, SMN Psychological Solution has limited the usage of unnecessary graphic and image. By doing so, SMN Psychological Solution not only can load a lot faster, but also have the professional and clean look that is best suited the system functionality. Apart from that, Kelly's also point out that any

website has to be easy for any user to use. SMN Psychological Solution implements this characteristic by make the website easy to navigate. There are only a few links in the web based system, and the link is placed where user can see it clearly.

Kelly's has also stressed out that the website need to be useful depends on the objective of the website. SMN Psychological Solution has been designed and develops based on the objective to provide an assessment tools for organization to assess their employee personality. It let the user to understand their personality a lot more and can improved from that.

## CHAPTER 3

### METHODOLOGY / PROJECT WORK



**Figure 3.1: Methodology**

### 3.1 Research Methodology

The methodology that will be used for this project is spiral methodology. The spiral methodology extends the waterfall model by introducing prototyping. It is generally chosen over the waterfall approach for large, expensive, and complicated projects.

### **3.2 Project Activities**

At a high-level, the steps in the spiral model are as follows:

1. The new system requirements are defined in as much detail as possible. This usually involves interviewing a number of users representing all the external or internal users and other aspects of the existing system.
2. A preliminary design is created for the new system.
3. A first prototype of the new system is constructed from the preliminary design. This is usually a scaled-down system, and represents an approximation of the characteristics of the final product.
4. A second prototype is evolved using four steps:
  - a. Evaluate the first prototype and identify its strengths, weaknesses, and risks.
  - b. Define the requirements of the second prototype.
  - c. Plan and design the second prototype.
  - d. Construct and test the second prototype.
5. At the project sponsor's option, the entire project can be aborted if the risk is deemed too great. Risk factors might involve development cost overruns, operating-cost miscalculation, or any other factor that could result in a less-than-satisfactory final product. Author will work closely with the sponsor, Associate Professor Dr. Sidek Mohd Noah.
6. The existing prototype is evaluated in the same manner as was the previous prototype, and, if necessary, another prototype is developed from it according to the fourfold procedure outlined above.

7. The preceding steps are iterated until the customer is satisfied that the refined prototype represents the final product desired.
8. The final system is constructed, based on the refined prototype.
9. The final system is thoroughly evaluated and tested. Routine maintenance is carried out on a continuing basis to prevent large-scale failures and to minimize downtime.

### **3.3 Tools**

The tools that are required to develop this system are:

#### **Hardware**

- Developer machine
  - Intel Core 2 Duo Processor T7400  
(2.16GHz, 667Mhz, 4MB L2)
  - 2GB DDR2 RAM
  - Nvidia GeForce Go7400VX 512MB

#### **Software**

- Windows XP Operating System
- Macromedia Dreamweaver 8
- Macromedia Fireworks
- Adobe Photoshop CS
- Internet browser
- PHP 4 or JavaScript
- MySQL
- Apache 2.0
- Notepad

## **CHAPTER 4**

### **RESULTS AND DISCUSSION**

This chapter will summarize the analysis and findings of the data collected during the planning period. The data gathered are mostly from Associate Professor Dr. Sidek Mohd Noah as he is the main person behind this hold project. This chapter will show the interface of the system, the example of the IPS question, and also the way on how the process to calculate the result.

#### **4.1 Results**

##### **4.1.1 System Interface**

The system interface for this project has been through a couple series of changes due to the fact that to get the ultimate design for the application. The interface has been changed three times; Figure 4.3 shows the latest design used by the system. Figure 4.1 shows the first design of the user interface and Figure 4.2 shows the second design of the user interface. These changes were made to give the website more corporate feeling to it. This transformation is important in order to grasp interest for big organization in using it as tools for their employees' assessment. User will look it as a web based system instead of website with a test on it.

This new look will have a very simple and easy interface where user will surely know what to do on their first visit to the website. Compared to the previous design, user will be bombard with unnecessary information and this will affect their interest in using the system.

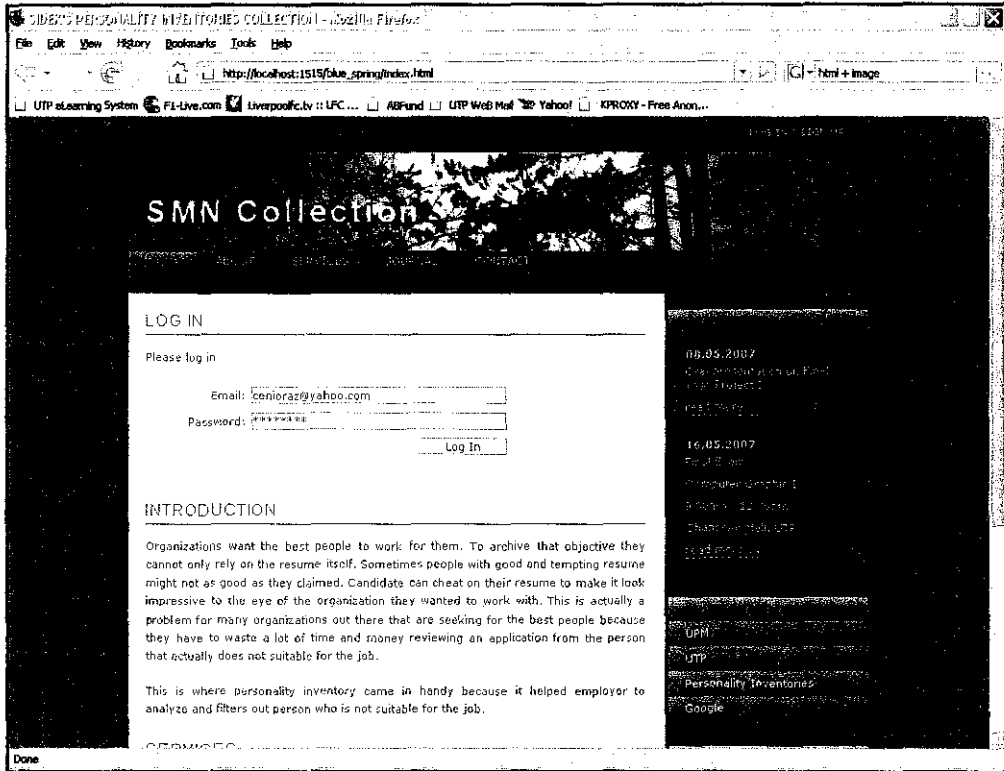


Figure 4.1: Prototype 1

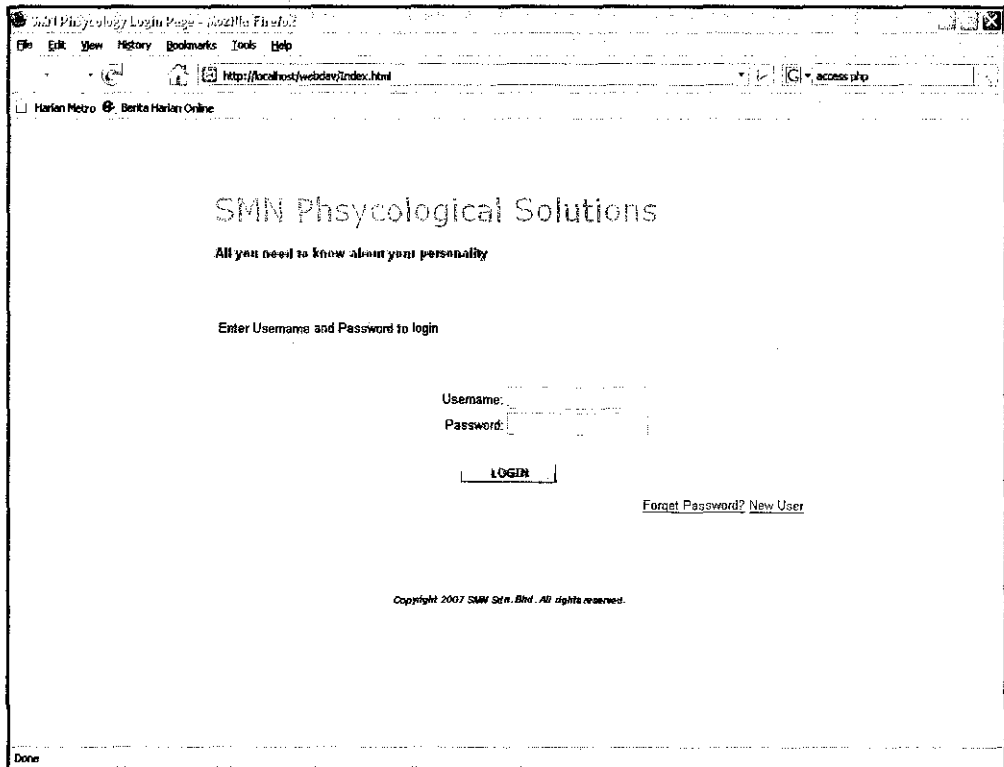
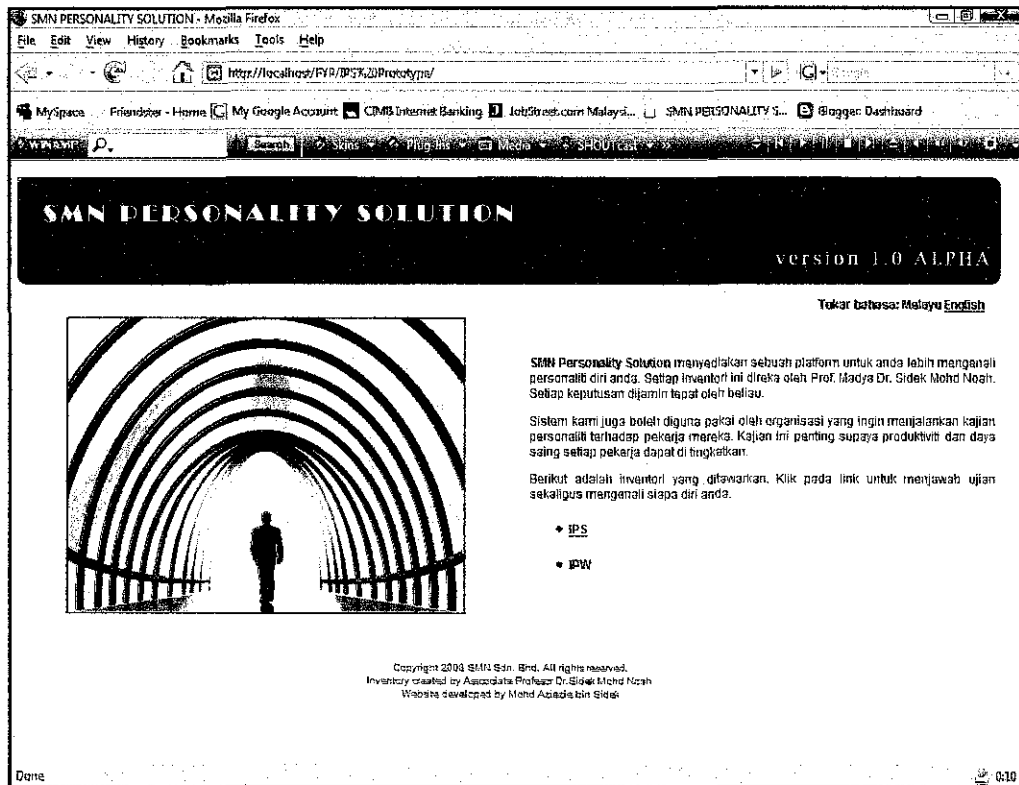


Figure 4.2: Prototype 2





**Figure 4.3: Prototype 3**

Through the 3<sup>rd</sup> changes to the interface design, the system managed to get the corporate and professional look to attract serious or business user to use the system. There is a plan to add the functionality to change the system to another language.

Figure 4.4 shows the basic design for test. Each page will display sixteen questions. IPS contains 160 questions, so there will be 10 pages for user to go through when taking the test. The initial design is to display only one question for every page, however based on my research and survey, it will annoy them a lot. On the technical part, one question per page will make the server to process a lot of works each time the user click for the next page. Each of the requests will put a burden to the server and possibilities to loss the data through the sent receive process between client and server is high. Therefore, the best solution is to compromise between performance and design to get the good system. On Figure 4.4, shows the design of the first prototype for displaying the questions. Figure 4.5 shows the latest design for this page as it is much more neat and tidy.

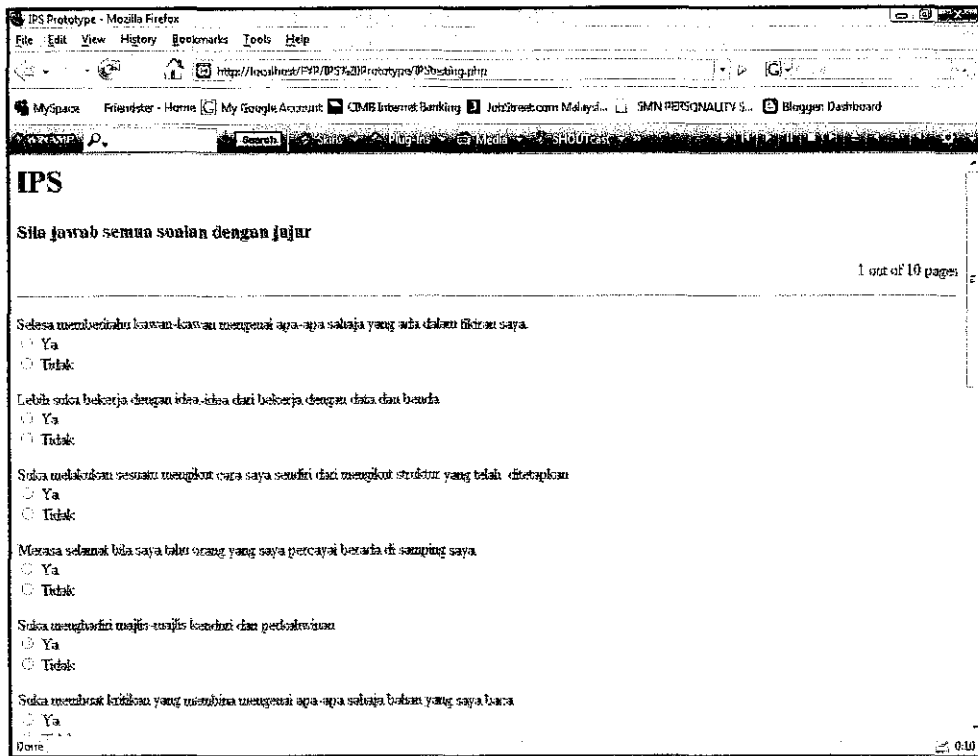


Figure 4.4: Prototype 1 IPS Question page

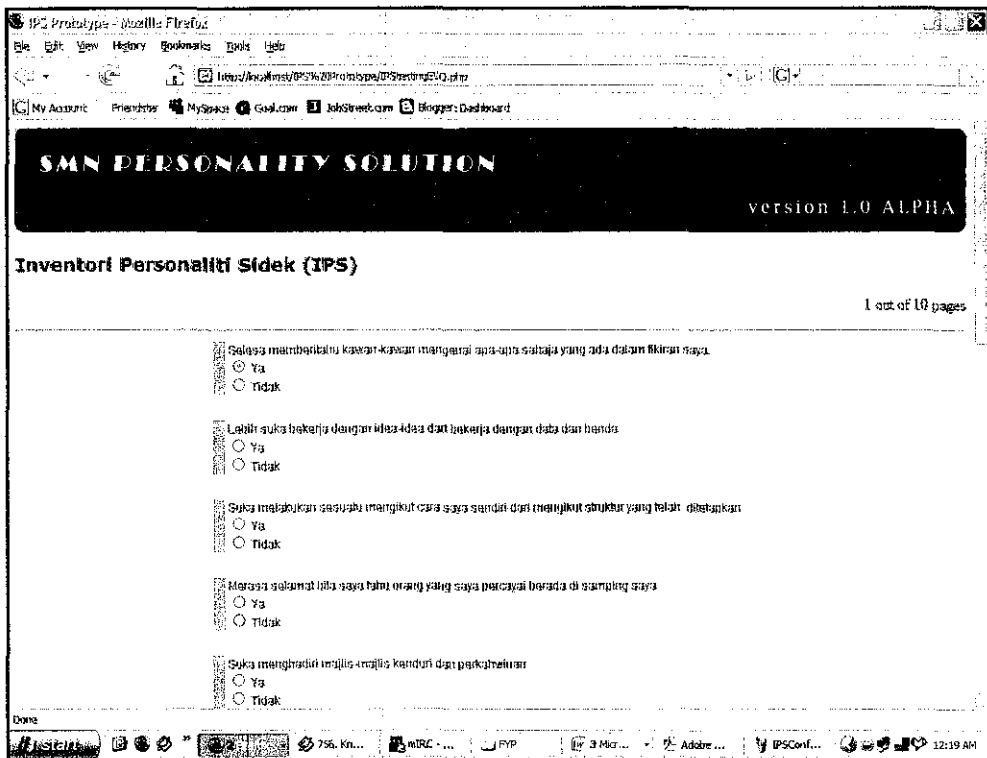


Figure 4.5: Prototype 2 IPS Question page

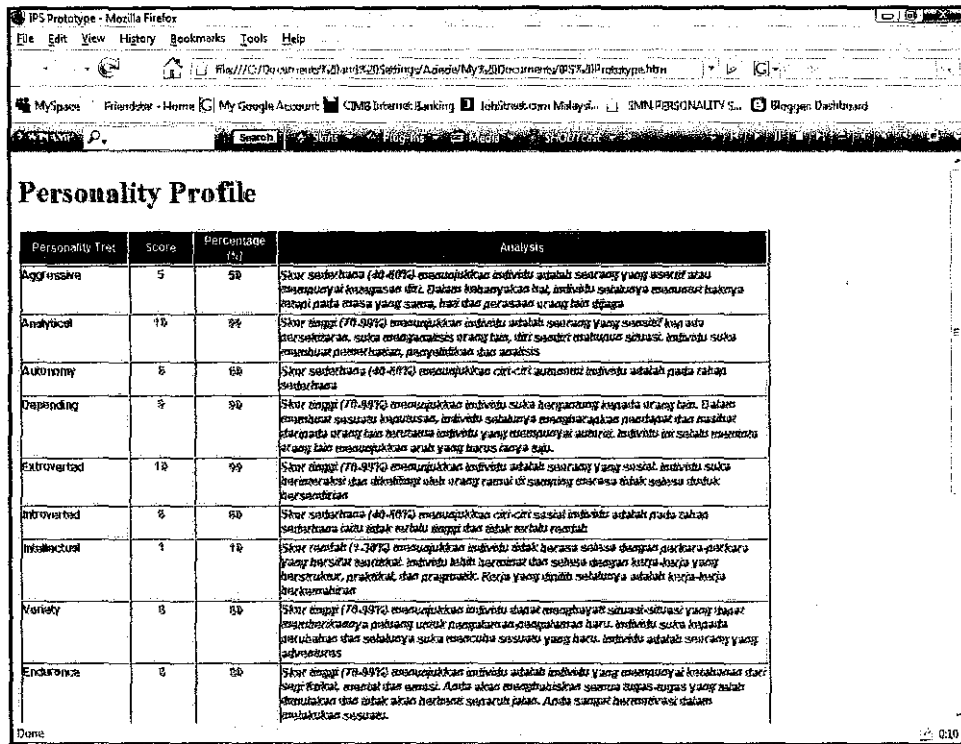


Figure 4.6: Prototype 1 IPS Result Page

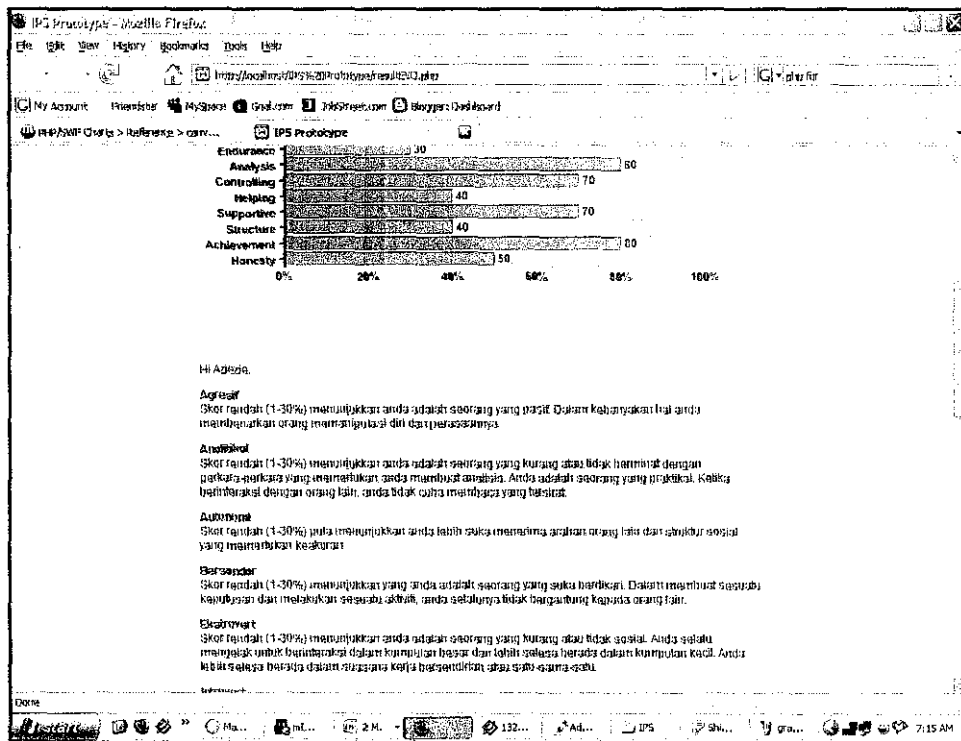
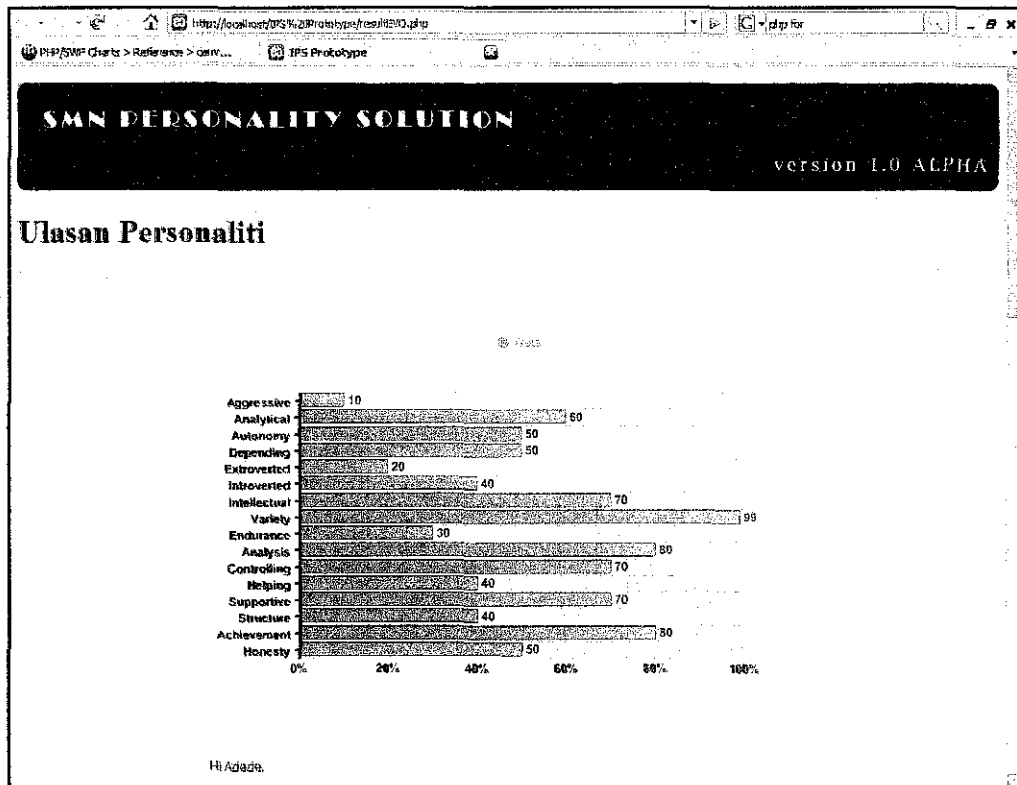
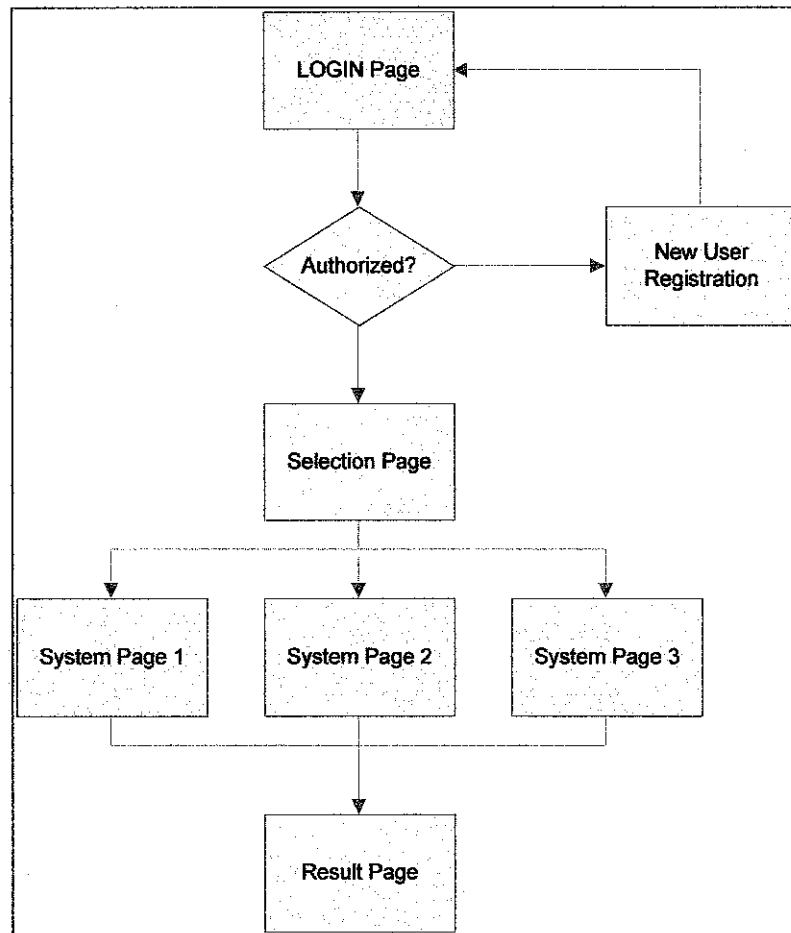


Figure 4.7: Prototype 2 IPS Result Page

After user has finished the test, Personality Profile will be generated with all the analysis for each traits. From Figure 4.6, there is a table that shows the score for each traits and also the percentages. There is also the analysis for each trait that describe what each number means. Apart from this table, there will also be a graph for user to see on general their scores. However the design of the result page has been changed to a much more professional look. This is shown in Figure 4.7 and Figure 4.8.



**Figure 4.8: Prototype 2 Graph**



**Figure 4.9: Navigation Map**

Figure 4.9 shows the navigation map of the website. On the top, there is the login page. Once the user provides the system with their username and password, the system will determine whether they are authorized or not. If user is not authorized, the system will navigate user to New User Registration Page where they can register as new user and then re-login back to the system.

Once user manage to login to the system, user can choose from the list provided to use which personality inventory system. Once they completed the test, the system will provide them with the result page where user can choose whether to save it or print it. User can still claim their result by login back to the system, and the system will display their result.

#### 4.1.2 IPS Questionnaire

This section will show few questions asked in the IPS test. Please note that the questions asked are in Bahasa Malaysia. The language of the question can't simply be convert because it may affect the meaning of the question asked and may also affect the results of the test. There will be the English version of the questionnaire throughout the development of this system.

Users who take the test will have to answer between YES or NO. To see the full questionnaire, please refer to Appendix A – IPS Questionnaire

Below are the example of the question been asked in the system in order to determined the characteristic of an individual. Note that the question asked is in Bahasa Malaysia.

1. *Selesa memberitahu kawan-kawan mengenai apa-apa sahaja yang ada dalam fikiran saya*
2. *Lebih suka bekerja dengan idea-idea dari bekerja dengan data dan benda*
3. *Suka melakukan sesuatu mengikut cara saya sendiri dari mengikut struktur yang telah ditetapkan*
4. *Merasa selamat bila saya tahu orang yang saya percayai berada di samping saya*
5. *Suka menghadiri majlis-majlis kenduri dan perkahwinan*
6. *Suka membuat kritikan yang membina mengenai apa-apa sahaja bahan yang saya baca*
7. *Suka membuat kritikan yang membina mengenai apa-apa sahaja bahan yang saya baca*

### 4.1.3 Score sheet and Calculation for IPS

This section will show how the score is calculated once the user has finished answering the entire question throughout the test. Each number 1-160 represent the number of question asked. Question with their number colored are the question that user answered YES. This is shown in Table 4.1

**TABLE 4.1: Score sheet**

1	17	33	49	65	81	97	113	129	145	6
2	18	34	50	66	82	98	114	130	146	9
3	19	35	51	67	83	99	115	131	147	8
4	20	36	52	68	84	100	116	132	148	3
5	21	37	53	69	85	101	117	133	149	9
6	22	38	54	70	86	102	118	134	150	10
7	23	39	55	71	87	103	119	135	151	3
8	24	40	56	72	88	104	120	136	152	7
9	25	41	57	73	89	105	121	137	153	8
10	26	42	58	74	90	106	122	138	154	0
11	27	43	59	75	91	107	123	139	155	8
12	28	44	60	76	92	108	124	140	156	9
13	29	45	61	77	93	109	125	141	157	6
14	30	46	62	78	94	110	126	142	158	5
15	31	47	63	79	95	111	127	143	159	8
16	32	48	64	80	96	112	128	144	160	4

Calculation will be done from row to row. There are 16 row (see Table 4.2) that each of the row representing one personality tret. To calculate the score as per table 4.a, just count the question that user stated as YES vertically row by row. For example in the table, the entire highlighted square has been answered with YES. Count the highlighted squares and total it up.

**Example 1:**

For row 1, question 17, 49, 65, 81, 97 and 145 has been highlighted because user answered YES for this question. So the score is 6

**Example 2:**

For row 4, question 52, 116, and 148 has been answered with YES. So the score for this personality tret is 3.

Once all the calculation for all the row has been made, then the percentage will be calculate to formulate a graph as shown at Table 4.2

From the score, the system can determine what kind of personality the individual have. For example in this table, the person have score 90% for personality tret helping. This means that this kind of person have a willingness to help other people no matter how hard it could be for him.

Another example is that, this person will always think that he or she is always right and other people are wrong. This is because the low score of self-critic personality tret.



**TABLE 4.2: Personality Profile**

Personality	Score	Percentage	1	10	20	30	40	50	60	70	80	90	99
<b>Tret</b>		<b>(%)</b>											
Aggressive	6	60	■	■	■	■	■	■	■				
Analytical	9	90	■	■	■	■	■	■	■	■	■	■	
Autonomy	8	80	■	■	■	■	■	■	■	■	■	■	
Depending	3	30											
Extroverted	9	90											
Introverted	10	99	■	■	■	■	■	■	■	■	■	■	■
Intellectual	3	30	■	■	■	■							
Variety	7	70											
Endurance	8	80	■	■	■	■	■	■	■	■	■	■	
Self-critics	0	1	■										
Controlling	8	80	■	■	■	■	■	■	■	■	■	■	
Helping	9	90	■	■	■	■	■	■	■	■	■	■	■
Supportive	6	60	■	■	■	■	■	■	■	■	■	■	
Structure	5	50	■	■	■	■	■	■	■				
Achievement	8	80	■	■	■	■	■	■	■	■	■	■	
Honesty.	4	40	■	■	■	■	■	■	■				

## 4.2 Discussion

As describe and discuss in earlier chapters, the automated Sidek Personality Inventory system will be a beneficial to all. It will make a person to understand more about their personality. By knowing that, they can choose a job or career that suitable with their personality and also they can know their strength and weaknesses and improving from there.

#### Pre-requisite of the system:

- Automated where all the calculation and analysis is done by the system itself. It must be accurate though.
- The system must have clean and neat graphic user interface
- The system must provide a great details on the results it will produce
- The system must provide a log in capacity
- User can choose to the language of the system between English and Malay

In order to meet the pre-requisite, the system will be design in details because this project involved a real client which is Associate Professor Dr. Sidek Mohd Noah. It will be develop using PHP or JAVA technology as it is an open-source programming language and can reduce cost. Apart from that, in terms of compatibility PHP has native connections available to many database systems such as MySQL, PostgreSQL, mSQL, Oracle, dbm, FilePro, Hyperwave and others. Among of these, PHP also has a built in SQL interface call SQLite.

The system will also be included with database system that will surely develop using MySQL. The database will be used to store the information and results of each person that have taken the test. The database should provide good security as it will be used to stored personal information about others. MySQL also was chosen because of the cost factors as it is free.

For testing purpose, the web server for this project will be Apache 2.0 as it is compatible with PHP 4. Apache is also free and can reduce the development cost.

## **CHAPTER 5**

### **CONCLUSSION & RECOMMENDATION**

As conclusion, it is believed that this tool is beneficial to all especially big organization that wants to have good quality workers on their side. The system will provide people with opportunity to success in their work. The impact of this system to organizations is big as it will reduce turnover by employee. This will benefit organization most because it safe their money for hiring people into their organization. Personality is an important thing because once people know type of person they are, they can learnt on how to communicate better, work better and also improving our weaknesses into strength. This will increase the productivity of any organization and provide the organization with healthy working environment because people are happy to do what they love to do.

The recommendation for this system is that to make sure it can be accessed globally and be used by international organization as well. In order to achieve that, the system will first have to be converted to other languages such as English, Chinese, Arabic, Japanese and others. This is the stepping stone for the system to be used globally. Apart from that, the system will need to be kept improve in terms of the technology used and also the security reason. This is because the system will store a lot of user personal information especially on their personality.

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## **APPENDICES**

**-APPENDIX - A**

**3.1 Gantt Chart**

ACTIVITIES	W 1	W 2	W 3	W 4	W 5	W 7	W 8	W 9	W 10	W 11	W 12	W 13	W 14	W 15	W 16
<b>Planning</b>															
Identify business value	█														
Analyze feasibility	█														
Develop work plan	█														
Control and direct project	█														

<b>Analysis</b>															
Analysis Strategy		█													
Requirement gathering		█													
Use Case modeling		█													
Structural modeling			█												
Behavioral modeling			█												

<b>Design</b>													
System design design													
Network architecture design													
Interface design Database & file													
Object design													
<b>Implementation</b>													
System Construction													
Installation													
Support plan													

## INVENTORI PERSONALITI SIDEK

### *Sidek's Personality Inventory*

### IPS

*Arahan:*

- A Inventori Personaliti Sidek ini mengandungi 160 pernyataan. Bermula dengan nombor satu, rekodkan jawapan anda pada borang jawapan yang disediakan.
- B. Jika pernyataan itu menerangkan diri anda, hitamkan (Y) dan jika tidak menerangkan diri anda, hitamkan (T) pada borang jawapan yang disediakan.
- C. Jika anda menghadapi kesukaran untuk menentukan sama ada sesuatu pernyataan itu menerangkan diri anda ataupun tidak, pilih jawapan yang anda rasa paling selesa.
- JAWAB SEMUA SOALAN.**

Bil.	Item	Ya	Tidak
1.	Selesa memberitahu kawan-kawan mengenai apa-apa sahaja yang ada dalam fikiran saya		
2.	Lebih suka bekerja dengan idea-idea dari bekerja dengan data dan benda		
3.	Suka melakukan sesuatu mengikut cara saya sendiri dari mengikut struktur yang telah ditetapkan		
4.	Merasa selamat bila saya tahu orang yang saya percayai berada di samping saya		
5.	Suka menghadiri majlis-majlis kenduri dan perkahwinan		



6.	Suka membuat kritikan yang membina mengenai apa-apa sahaja bahan yang saya baca		
7.	Lebih selesa tinggal di kawasan yang tidak mempunyai ramai jiran tetangga		
8.	Sukakan suasana kehidupan yang berubah-ubah.		
9.	Tidak mudah keciwa apabila berhadapan dengan masalah-masalah yang rumit		
10.	Selalu mengelak dari bertanya kerana takut akan salah		
11.	Mempunyai keinginan supaya orang lain menganggap diri saya sebagai pemimpin		
12.	Menolong sedaya upaya kawan-kawan yang menghadapi masalah		
13.	Mengharapkan sanjungan dari kawan-kawan untuk mengelakkan diri dari rasa tertekan		
14.	Suka kepada kerja-kerja yang mempunyai struktur yang jelas		
15.	Mengharapkan supaya orang lain menganggap saya sebagai seorang yang amat berjaya		
16.	Setakat ingatan saya, saya tidak pernah meradang dengan sesiapa		
17.	Selesa meminta pertolongan dari kawan-kawan dan ahli-ahli profesional bila menghadapi masalah		
18.	Memikirkan secara kritikal setiap perkara yang saya buat dan lihat		
19.	Memikirkan sendiri cara-cara untuk menyelesaikan masalah yang saya hadapi		
20.	Mengelak dari memperkatakan perkara-perkara yang boleh menyebabkan orang lain marah		
21.	Suka berucap semasa berada di dalam kumpulan besar		
22.	Suka memikirkan masalah-masalah yang rumit dan mencabar		
23.	Seringkali memendamkan perasaan saya agar tidak diketahui oleh orang lain		
24.	Tidak suka terikat dengan jadual yang ketat untuk aktiviti-aktiviti masa lapang		
25.	Selalu tidur lewat untuk menyelesaikan kerja-kerja yang telah dimulakan		

26.	Merasa keciwa bila memikirkan diri saya tidak berupaya mengawal keadaan		
27.	Selalu membuat keputusan-keputusan penting bersendirian tanpa mengharapkan bantuan orang lain		
28.	Tidak sampai hati melihat orang lain dihukum walaupun ianya telah diadili		
29.	Ingin supaya orang lain bersimpati dengan masalah hidup yang saya alami		
30.	Suka melakukan sesuatu kerja dengan kemas dan teratur		
31.	Beranggapan adalah penting mempunyai pekerjaan di mana orang lain tidak berupaya melakukannya		
32.	Saya tidak pernah mengumpat tentang diri seseorang		
33.	Selesa meminta kembali barang-barang yang telah dipinjam oleh kawan		
34.	Berminat membaca buku-buku bercorak akademik, falsafah dan psikologi		
35.	Akan menghadiri sesuatu majlis jika saya rasa ingin berbuat demikian		
36.	Selalu memihak kepada kumpulan yang mendapat suara majoriti		
37.	Percaya bahawa diri saya adalah seorang yang peramah dan mudah mesra		
38.	Lebih selesa berdampingan dengan orang yang intelek berbanding orang yang praktikal		
39.	Jarang bercakap di dalam sesuatu sesi perbualan atau perbincangan		
40.	Merasa seakan-akan berminat kepada semua perkara		
41.	Akan menyelesaikan sesuatu kerja sebelum memulakan kerja-kerja yang lain		
42.	Percaya bahawa orang lain membuat sesuatu kerja lebih baik daripada saya		
43.	Lebih suka menjadi ketua dari menjadi pengikut		
44.	Sedia memberi pertolongan kepada orang lain tanpa mengira pertolongan itu dihargai atau tidak		
45.	Selalu menceritakan masalah-masalah peribadi saya kepada orang lain		
46.	Suka kepada aktiviti-aktiviti yang memerlukan perhatian dan tumpuan		

	yang terperinci		
47.	Mencuba bersungguh-sungguh dalam melakukan apa sahaja kerja		
48.	Saya tidak pernah memecahkan rahsia kawan-kawan saya		
49.	Mudah berang apabila kerja yang saya lakukan tidak menjadi		
50.	Berminat untuk mencipta idea-idea dan teori-teori baru yang berhubung dengan manusia		
51.	Tidak mengharapkan orang lain membantu menyelesaikan kerja-kerja saya		
52.	Suka menerima pimpinan orang lain		
53.	Mudah memulakan perbualan dengan orang-orang yang belum saya kenali		
54.	Suka menyelesaikan masalah-masalah yang dihadapi melalui kajian dan penyelidikan		
55.	Mengelak daripada bercakap dengan orang lain melainkan jika ditegur terlebih dahulu		
56.	Merasa bosan bila tiada kerja-kerja baru yang boleh dibuat		
57.	Akan meneruskan kerja-kerja yang susah walaupun peluang untuk berjaya adalah tipis		
58.	Rasa tidak puas hati dengan apa yang telah saya capai dan perolehi sehingga ini		
59.	Suka membuat keputusan untuk kumpulan		
60.	Selalu meminjamkan barang-barang yang saya sayangi kepada kawan-kawan yang memerlukan		
61.	Selalu mengharapkan belaian kasih sayang dan perhatian dari orang lain		
62.	Ada jadual makan dan tidur yang tetap untuk setiap hari		
63.	Suka menerima hadiah-hadiah dan anugerah-anugerah bagi setiap pencapaian cemerlang yang saya perolehi		
64.	Saya sentiasa bersetuju dengan pendapat ibu bapa saya		
65.	Akan berterus terang menyatakan bahawa tingkahlakunya telah menyakitkan hati saya		
66.	Suka menganalisis personaliti individu yang saya temui		
67.	Tidak suka dikawal oleh individu yang mempunyai autoriti		

68.	Tidak akan melanggar peraturan yang telah ditetapkan walaupun saya tidak bersetuju dengan peraturan itu		
69.	Cenderung bercakap lebih banyak dari orang lain apabila berada di dalam sesuatu kumpulan		
70.	Suka melibatkan diri dalam perbincangan mengenai idea-idea yang abstraks		
71.	Suka menghabiskan waktu petang seorang diri dari berbual dan bermain dengan kawan-kawan		
72.	Selalu mengubah program dan aktiviti yang telah saya rancang		
73.	Boleh bekerja dalam satu jangkamasa yang panjang tanpa mudah merasa letih dan jemu		
74.	Rasa bersalah terhadap beberapa perkara buruk yang telah saya lakukan pada masa lalu.		
75.	Akan mengambilalih tugas kepimpinan apabila suasana berada dalam keadaan tertekan		
76.	Gembira menghabiskan sebahagian dari masa saya membantu menyelesaikan masalah-masalah sosial		
77.	Merasa perlu mencurahkan perasaan yang terkandung di dalam hati saya kepada kawan-kawan		
78.	Menyusun idea dan pemikiran saya dengan cermat sebelum memulakan perbualan		
79.	Berusaha bersungguh-sungguh untuk mencapai kemenangan dalam apa-apa sahaja aktiviti yang bercorak pertandingan		
80.	Saya tidak pernah tersinggung apabila ditegur oleh kawan-kawan		
81.	Selesa bertanya apabila arahan yang diberikan oleh ketua kurang jelas		
82.	Suka melibatkan diri dalam perbincangan yang berkaitan dengan falsafah hidup masyarakat yang ideal		
83.	Suka melakukan kerja-kerja yang tidak melibatkan arahan, persetujuan dan pendapat orang lain		
84.	Meminta pendapat dan persetujuan orang lain sebelum memulakan sesuatu pekerjaan		

85.	Suka kepada aktiviti-aktiviti yang melibatkan orang ramai		
86.	Selalu menghabiskan masa dalam perpustakaan membaca buku-buku yang bercorak akademik		
87.	Suka menyendiri melayan fikiran		
88.	Selesa dalam menghadapi situasi-situasi baru		
89.	Jarang menanggungkan kerja yang telah diberikan kepada saya walau pun saya tidak suka		
90.	Merasa diri saya gagal bila orang lain membuat kerja lebih baik daripada saya		
91.	Bercita-cita menjadi pemimpin sesebuah kelab atau organisasi		
92.	Ingin bergiat cergas dalam persatuan yang bertanggungjawab membantu individu yang kurang bernasib baik		
93.	Selalu meminta kepastian dari orang lain bahawa apa yang saya buat dan katakan adalah betul		
94.	Sentiasa menjaga ruang tempat kerja saya supaya kelihatan bersih dan kemas		
95.	Melihat diri saya sebagai seorang yang bercita-cita tinggi		
96.	Saya tidak pernah berselisih faham dengan sesiapa		
97.	Akan terus bertanya sehingga saya berpuas hati dengan jawapan yang diberi		
98.	Selalu memikirkan jalan-jalan penyelesaian kepada bermacam-macam masalah sosial, politik dan ekonomi		
99.	Melakukan sesuatu mengikut cara saya sendiri tanpa memikirkan apa orang lain akan kata		
100.	Lebih banyak bertolakansur mengenai sesuatu perkara berbanding dengan orang lain		
101.	Selesa bercakap dengan sesaorang walaupun bertemu buat kali pertama		
102.	Suka menulis ulasan kritikal mengenai buku-buku dan artikel-artikel bercorak akademik yang saya baca		
103.	Merasa gugup bercakap di hadapan khayalak ramai		
104.	Tidak suka tinggal di sesuatu tempat dalam satu jangkamasa yang lama		
105.	Akan meneruskan kerja-kerja yang menghadapi kebuntuan, walaupun orang lain telah menarik diri		

106.	Merasakan bahawa kehidupan saya adalah tidak mengembirakan		
107.	Selalu mempengaruhi orang lain supaya menerima pendapat saya		
108.	Percaya bahawa menolong orang lain adalah sama penting dengan menolong diri saya sendiri		
109.	Rasa sedih menghadapi masalah-masalah peribadi bersendirian tanpa sokongan dari kawan-kawan		
110.	Merancang dengan teliti matlamat yang ingin saya capai di masa akan datang		
111.	Merasakan bahawa kejayaan orang lain selalu mendorong saya untuk mencuba dengan lebih bersungguh-sungguh		
112.	Sejarah kehidupan saya sentiasa menyeronokkan dan mengembirakan		
113.	Lebih selesa membuat kerja-kerja yang telah saya rancang dari membuat kerja yang disuruh oleh orang lain		
114.	Berminat mencari sebab musabab mengenai tingkahlaku dan permasalahan manusia		
115.	Selalu bertindak mengikut keyakinan diri		
116.	Merasa perlu bergantung kepada individu yang saya percayai bagi membentuk nilai-nilai hidup saya		
117.	Lebih selesa berinteraksi dengan individu yang tidak saya kenali dari duduk seorang diri		
118.	Sering memikirkan sebab-sebab berlakunya masalah di dunia ini serta cara penyelesaiannya		
119.	Selalu merasa bimbang bila bertemu dengan orang yang belum saya kenali		
120.	Suka membuat sesuatu kerja hanya disebabkan ianya berbeza dari yang lain		
121.	Akan menyelesaikan segala tugas yang diamanahkan kepada saya walaupun saya terpaksa bekerja lebih masa		
122.	Merasakan yang diri saya patut dihukum kerana telah melakukan sesuatu yang salah		
123.	Suka kepada aktiviti-aktiviti kumpulan di mana saya bertindak sebagai ketua		

124.	Mudah mesra dan mudah membina persahabatan dengan orang lain		
125.	Merasa kecewa bila orang lain tidak menghargai diri saya		
126.	Merancang semua aktiviti-aktiviti supaya ia dapat dijalankan dengan lancar		
127.	Mempunyai keinginan yang tinggi untuk lebih berjaya daripada orang lain		
128.	Walaupun rakan-rakan selalu membuatkan saya ternanti-nanti, saya tidak pernah marah		
129.	Agak mudah marah berbanding dengan kawan-kawan saya yang lain		
130.	Memperuntukkan masa yang agak banyak bagi memikirkan masalah-masalah rumit yang perlu diselesaikan		
131.	Percaya yang saya mempunyai hak untuk menentukan sendiri apa yang ingin saya lakukan		
132.	Lebih suka meminta nasihat dari orang lain daripada cuba menyelesaikan masalah saya sendiri		
133.	Menganggap diri saya sebagai orang yang mudah untuk didampingi		
134.	Merasakan yang diri saya lebih berkebolehan membuat sesuatu kerja berbanding dengan kawan-kawan saya yang lain		
135.	Merasa amat sukar memberitahu orang lain mengenai diri saya		
136.	Ingin mencuba sesuatu sekurang-kurangnya sekali		
137.	Bila saya membuat sesuatu keputusan, jarang sekali saya akan mengubahnya		
138.	Percaya bahawa diri saya mempunyai lebih banyak masalah peribadi dari orang lain		
139.	Gembira jika saya terpilih untuk memegang jawatan yang mempunyai autoriti		
140.	Percaya bahawa kebanyakan orang yang saya temui boleh menjadi kawan kepada saya		
141.	Ingin supaya diri saya difahami dan diterima oleh orang lain		
142.	Bekerja lebih efektif mengikut jadual yang telah dirancang terlebih dahulu		

143.	Suka mengisi masa lapang dengan aktiviti-aktiviti dan kerja-kerja yang mencabar		
144.	Saya tidak pernah bosan melakukan kerja yang berulang-ulang		
145.	Suka kepada perdebatan yang hangat tidak kira sama ada saya menang atau kalah		
146.	Suka membaca buku-buku yang boleh membantu saya mengenali diri dengan lebih baik		
147.	Berpendapat bahawa apa yang betul dan apa yang salah adalah ditentukan oleh diri saya sendiri		
148.	Tidak akan memulakan sesuatu kerja bila saya dapati orang lain tidak berminat untuk melakukannya		
149.	Mempunyai ramai sahabat dan kenalan		
150.	Suka berbincang mengenai konsep-konsep dan idea-idea		
151.	Akan mengelak situasi-situasi yang memaksa saya berhubung dan berinteraksi dengan orang ramai		
152.	Merasa bosan hidup dalam keadaan yang stabil di sepanjang masa tanpa perubahan		
153.	Tidak suka membiarkan sesuatu kerja terbengkalai tanpa mencari jalan penyelesaiannya segera		
154.	Takut akan kecewa dalam mengharungi hidup		
155.	Akan memilih pekerjaan di mana saya mempunyai tanggungjawab penuh untuk menyelia		
156.	Suka melawat kawan-kawan dan jiran-jiran saya yang sakit		
157.	Akan meminta pertolongan kawan-kawan yang lain apabila menghadapi kebuntuan		
158.	Rasa kecewa bila ada sesuatu yang mengganggu perjalanan rancangan saya		
159.	Ingin diiktiraf sebagai seorang yang berpengaruh		
160.	Saya tidak pernah cemburu walaupun kekasih atau orang yang saya sayangi bernesra dengan orang lain		