AUTO GENERATE MEN CLOTH TEMPLATE

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SUPERVISOR'S DECLARATION

"I hereby declare that I have read this thesis and in my opinion this thesis is

sufficient in terms of scope and quality for the award of the

Degree in Computer Science (Software Engineering)"

Signature   : ....

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Date   : ....

DECLARATION

I declare that this thesis entitled "AUTO GENERATE MEN CLOTH TEMPLATE" is the result of my own research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature   : ....

Name   : Nurulfarhana Bt Mohd Azhar

Date   : ....

DEDICATION

Special Dedication to

My parent for their support and motivation.

Dr Rohani Binti Abu Bakar as my supervisor for his guidance, critics and advisor me.

Nurliana Binti Ramli for helping me and find an information

My friends

Thanks for your support and cooperation.

"May Allah bless yours"

Sincerely

Nurulfarhana Bt Mohd Azhar

ACKNOWLEDGEMENT

ABSTRACT

Auto Generate template Men Cloth is acts as a platform for the user to make their cloth easy and faster. This prototype is a web-based system that is provides features of managing data and displaying the results of the template cloth. The objectives of the research are to make an easy for user to auto generate the template by inserting the measurement of their body to the form in the interface. The methodology that used to develop this system is Rapid Application Development (RAD). The technique that will be use is canvas in HTML which is the input of the measurement is converting to the coordinate to make the pola. As the expected result is, the template is able to auto generate following the measurement that user insert whereby the measurement has key in by them.

ABSTRAK

Auto Generate Template Men Cloth bertindak sebagai landasan untuk pengguna yang menggunakan prototaip ini dimana untuk membuat pola baju mereka dengan mudah dan cepat. Prototaip ini berdasarkan system laman sesawang yang menyediakan ciri-ciri untuk menguruskan data dan memaparkan keputusan yg dihasilkan setelah menjanakan pola baju tersebut. Objektif di dalam pencarian prototaip in ialah untuk memudahkan untuk pengguna menggunakan prototaip ini dengan mengisi maklumat tentang saiz badan mereka , kemudian menghasilkan pola yg dihasilkan melalui ukuran saiz badan pengguna.Metodologi yang digunakan untuk menghasilkan prototaip ini ialah Rapid Application Development (RAD). Teknik yang digunakan ialah canvas dalam HTML dimana input daripada ukuran saiz badan pengguna akan ditukarkan kepada bentuk koordinate untuk menghasilkan pola baju. Keputusan yang terhasil ialah polabaju akan terhasil dengan dijana secara automatic dengan mengikut ukuran badan yang dimasukkan pengguna.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIX

LIST OF APPENDIX

CHAPTER 1

INTRODUCTION

1.1 Introduction

A good cloth is from a good and rigorous tailor, which is their entire customer have a satisfaction with their sewing who make a reservation from them. Therefore, the factor all of this are the measurement of the size of cloth is accurate, neat stitches and etc. With this system, we can proceed from one of this factor which is an accurate measurement of the size of the cloth by generating a template following their measurement.

This prototype will make an easier to everyone, which is we will develop the prototype to generate the template with an accurate measurement and they just need to follow the polar of the cloth that already been measure with the body size of them. All they need to do is just to insert the measurement of their body size like shoulder length, sleeve length, sleeve width and all that related. If the measurement is changing, they can update a new measurement.

The benefits that we get from this system are the data is structured well and it is easy for them to retrieve their measurement data. They also can save the measurement without needs to measure the size of body when every time they want to make a cloth

by themselves. It is give a simple way to them to make a faster cloth with a good quality and accurate measurement.

1.1.1 Project Overview

This prototype is developing for they which are to make a template for cloth. The function of this system is to make a template that can make them make their job faster and simple.

By using this prototype, they just need to input the data of user measurement and the system will automatically generate the template of their body size of cloth.

This prototype is based on web-based system that provide a good benefit for tailor and other people who are interested in making cloth. This way will help them to have a template of their criteria of cloth that they want.

1.2 Problem Statement

As we know that, technology is already monopoly among us. All we need is efficiency, speed and skill to make a better and simple job to be done within a short time. That is why this prototype will be developing which is to make an easier for them in future.

The problem that arises for people who does not know how to sewing is a skill in sewing is needed and this skill can get better by practicing it. But to develop the skills, it is take a long time for someone to expert in it.

Plus, to develop this skill, people who do not know how to do it, there is class to learn how to sew cloth but the price to take the class is expensive and many people cannot afford it.

1.3   Objective

The objectives of the project are:

i.   To facilitate the user to make an accurate measurement the size of cloth.
ii.   To develop a prototype that generate template of men cloth.

1.4   Scope

The scope of this system is state as below:

i.   Consider to generate only baju melayu.
ii.   The template will be generated based on given input by user.
iii.   User will be able to print provided template.
iv.   The template will be printed in the A4 Size.

1.5   Thesis Organization

This thesis consists of five (5) chapters. Chapter 1 will discuss on introduction to the system. The discussion consists of system overview. Problem statement discuss on the problem that faced by the current system. On objectives, the reasons of the development of project are listed. Scope of the project is discussed on project and user limitation.

Chapter 2 is literature review which will discuss on current system and the technique or the software that is used on the current system.

Chapter 3 will discuss on system methodology. It will be discuss on the method that is used to develop the system and project planning. On this chapter also will discuss the needs of the project such as the software and the device that are needs to develop the system.

Chapter 4 will discuss on project implementation. This chapter will discuss on design of project development.

Chapter 5 will discuss on discussion, result and conclusion that receive from the data and data analysis, project constrain and, fix and suggestion of the system. Project analysis will discuss on project objective which continuously with project problem. This is including the conclusion of the data that are received and conclusion of the methodology and used research implementation.

CHAPTER 2

LITERATURE REVIEW

2.0   Introduction

There are a few of existing system that are related with the Expert System of Auto Generate Template Cloth for Tailor which is Pattern Computation for Compression Garment by a Physical / Geometric Approach [1] and Garment pattern definition, development and application with associative feature approach [2]. The method that will be used to develop this system based on Rapid Application Development (RAD).

The development application tools that will be use to develop this system is Adobe Dreamweaver CS3 to design the interfaces. For the database, MySQL will be used to store the data of from user input. The specification of software and the hardware requirement will be explained later in this chapter.

2.1 Existing System

2.1.1 Pattern Computation for Compression Garment by a Physical / Geometric Approach

The objective of this article is to solve the problem of computing planar patterns which is to use for compression garments [1]. It is show that it can be generate in a user- define to distribute trough the proper dimension by computing 2D and folded in 3D. This system target to develop a system which is be able to model a complicated of elastic fabric behavior and determine it in the 2D patterns from what been given in 3D mesh that are surface satisfying the normal pressure distribution [1]. The method that has been used in this article to generate the template is geometric Computation.
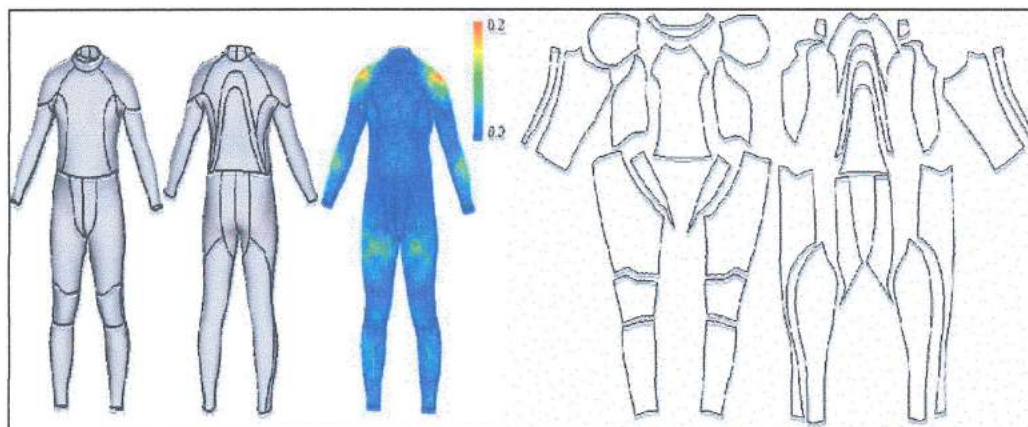
Figure 2 1: Garment Pattern from 3D to 2D

In the physical model, many definition and assumptions is involved which is it is imposed on the physical model of the compression garment. One of the definition is the elastic fabric is represented as a network of linear truss bars in connectivity on M [1]. Plus with the geometric constraint, it can differentiate the 3D shape that can

fabricate from 2D patterns. Therefore the similar formula will be use to constrain the local geometry of a fabric piece for the compression garment.

From the experimental result, this system are developed using C++language [1]. Even though it will be have an error in the measurement terms for the evaluation of the test result.

2.1.2 Garment Pattern Definition, Development and Application with Associative Feature Approach

According to this article, it tells us about the virtual of garment design which already growing fastest to develop it in 3D using software CAD tools. The trend of customization cloth is actually following the right measurement of the customer. To get the achievement of this virtual garment design, it is important to the development that is patches designing to 2D from 3D.

Traditionally, garment is being detected by its pattern. Occasionally, two dimensional types are applied in computer aided solutions. But CAD tools are allowed an accurate modeling for the garment mass which is to customize it and make it becomes feasible. The process of garment design is still following the traditional approach that is design the cloth with two dimensionally. According to this article, the garment pattern is being generated by customer and the clothes instead of another way. Besides, to evaluate the design the garment, it is necessary to follow the procedure of draping the simulation with trial and error.

(a) Three-dimensional garment pattern

Flattened surface

Flattening a garment pattern

(b)

φ

Internal boundary

$\mathbf{r}$

$t_{p_1r} = |\mathbf{p}_1\mathbf{r}|$

$t_{p_2r} = |\mathbf{p}_2\mathbf{r}|$

$\mathbf{p}_2$

$\mathbf{p}_1$

$\mathbf{q}_2$

$\mathbf{q}_1$

$d_{q_1s} = |\mathbf{q}_1\mathbf{s}|$

$d_{q_2s} = |\mathbf{q}_2\mathbf{s}|$

Internal boundary

Flattened surface with internal boundaries mapped

mapping the boundaries
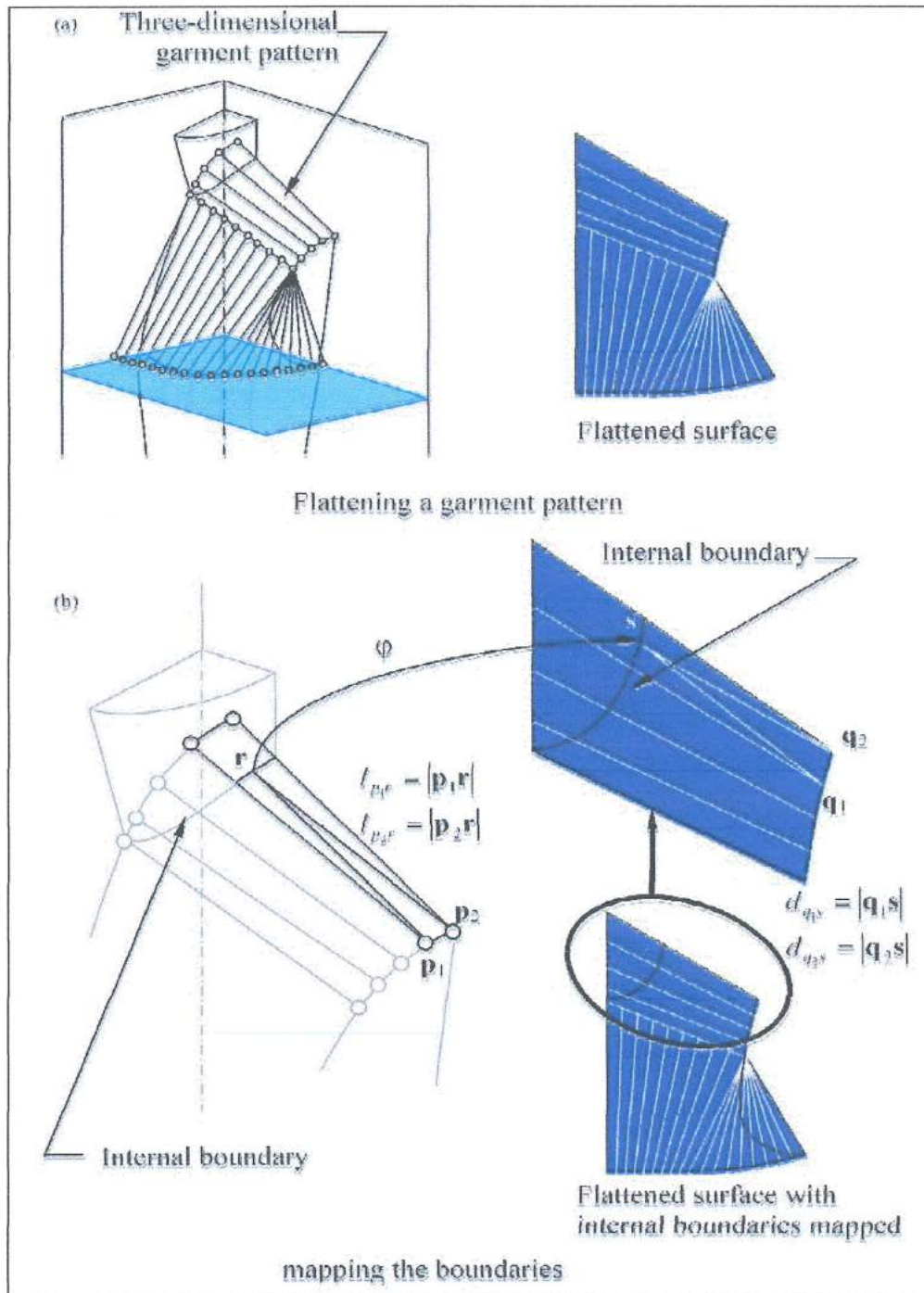
Figure 2 2: Flattened two-dimensional pattern

Garment a pattern designed by three dimensionally that is based on the human torso. Only important point is taken to make a garment pattern and it is including torso features. Measurements that are taken from human are based on horizontal and vertical.

The proposed of the garment pattern for three dimensional is similar with the design of rigid. But, because of the pattern geometry is involved by more than developable surfaces, it is not guaranteed by another order. Thus, the manipulation of manipulation need a modification to modified the application.

2.1.3 Summary of All Existing System

Table 2.1: Summary of Existing System

	Techniques	Advantages
Pattern Computation for Compression Garment by a Physical/ Geometric Approach	Geometric Computation Physical/Geometric approach	It is easy because it can automatically generate the patterns from the input of 3D shape. It is developable surfaces which is it is inherit many of desirable characteristics.
Garment Pattern Definition, Development and Application with Associative Feature	3D CAD Tools Garment Geometry	Associative feature-based CAD tools are common in mechanical engineering design. The geometry of a three-dimensional garment pattern is

Approach		described by a set of several developable surfaces which are approximated their criteria.

2.2 Technique

Canvas Element and Position Using Coordinate in HTML.

The technique that will be used to draw the template is by using the position of the coordinate in HTML. The coordinate will set in the canvas elements of HTML. Canvas can be used to show or represent something is visually in the browser like simple diagrams, chart and graphs, embedded a drawing applications and etc.

From what we can draw using this is like rectangle, Arcs, paths and line drawing, and many more that can be used by get the correct coordinate. From that picture we can transform it into scaling, or rotation to change the current drawing into another size or shape.

Below is the example of html for Canvas tag.

```
<!DOCTYPE HTML>

<html>

 <head>

  <script>

   window.onload = function() {
```

```
        var canvas = document.getElementById("myCanvas");

        var context = canvas.getContext("2d");



        // do stuff here

      };

    </script>

  </head>

  <body>

    <canvas id="myCanvas" width="1200" height="1500"></canvas>

  </body>

</html>
```

Figure 2 3: HTML for Canvas Tag

```
<!DOCTYPE HTML>

<html>

  <head>

    <style>

      #myCanvas {

        border: 1px solid #9C9898;

      }
```

```
  body {

    margin: 0px;

    padding: 0px;

  }

  </style>

  <script>

    window.onload = function() {

      var canvas = document.getElementById('myCanvas');

      var context = canvas.getContext('2d');

      context.beginPath();

      context.rect(188, 50, 200, 100);

      context.fillStyle = '#8ED6FF';

      context.fill();

      context.lineWidth = 5;

      context.strokeStyle = 'black';

      context.stroke();

    };

  </script>

</head>

<body>
```

```
<canvas id="myCanvas" width="578" height="200"></canvas>

</body>

</html>
```

Figure 2 4: HTML to Draw Rectangle

By using this technique, we can implement it in this development to achieve the objective of this prototype which is to generate the template by insert the measurement of our body. So by using the drawing application for this system, the template can be created to connecting it with the data of measurement. Each of drawing is read in pixel and to get the size of actual human body, the coordinate needs to convert in inch.

2.3   System Development Methodology

There are several methodologies in developing the system. The developing the system, a suitable method is needed to build the prototype because the method will be show how the system builds from the beginning until the end of the system.

2.3.1   Rapid Application Development (RAD)

Rapid Application Development (RAD) proposes that products can be developed faster and of higher quality by:

1. Using workshops or focus groups to gather requirements.
2. Prototyping and user testing of designs.
3. Re-using software components.

4. Following a schedule that defers design improvements to the next product version.

5. Keeping review meetings and other team communication informal.

In the RAD, structured techniques and prototyping are especially used to define user's requirements and to design the final system. The development process starts with the development of preliminary data models and business process models which is using structured techniques. The stages that have in the RAD are be repeated iteratively. RAD approaches may entail compromises in functionality and performance in exchange for enabling faster development and facilitating application maintenance.
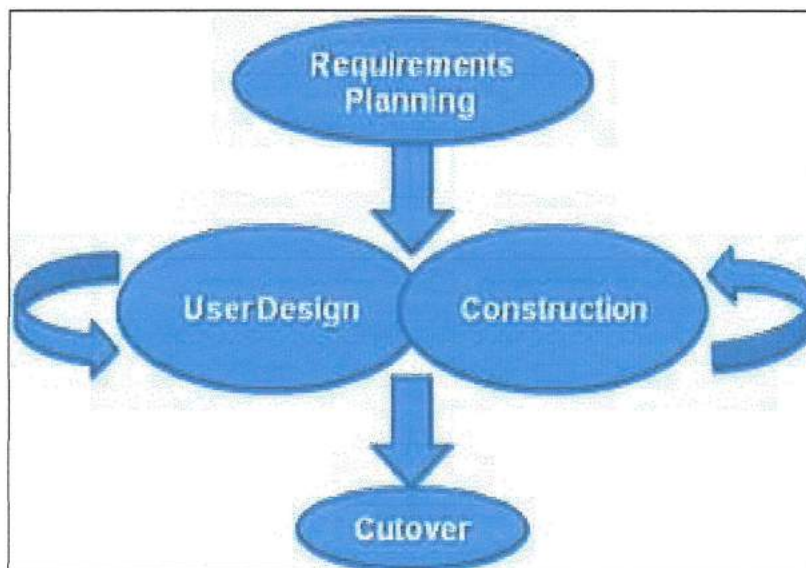
Figure 2 4: Rapid Application Development Diagram

The tools that are included in a RAD environment are:

1. A database programming language that embeds knowledge of the database structures and includes fundamental database manipulation operations. SQL is the standard database programming language.
2. An interface generator which is used to create forms for data input and display.

2.4 Development Tools

The development tools that suitable will be used to develop this prototype. This prototype is web-based system and the tools that will be use is Adobe Dreamweaver CS3.

2.4.1 Adobe Dreamweaver CS3

Adobe Dreamweaver CS3 is the industry-leading web authoring and editing the software that provides both visual and code-level capabilities for creating standard-based websites and designs for the desktop, Smartphone, tablets, and other device [4].

This software tools is from adobe products. It can be used to develop the interfaces and design interface of this prortotype. Adobe Dreamweaver CS3 also can manage to make a web sites, web application and etc. The platform that can be used with this tool to connect to the database is EasyPHP, XAMP, and etc.

Adobe Dreamweaver CS3 supports several languages such as, HTML, PHP, ASP, AJAX and another language by choosing the programming language that wants to implement for the suitable system. It is allow any programming language to be supported by the code and debugger which is provided a language-specific service has been authored.

2.4.2 Database

Database is the place that all the data and information that has been key-in by user will be stored in here. A database is an organized collection of data for one or more purposes. The term of database is implies that the data is managed to some level of quality and it is implies the use of a general-purpose database management system (DBMS) [5]. Database languages are dedicates programming languages and utilized to define a database, manipulate its content, and query it. A regular programming languages that always been used is SQL.

2.4.3 MySQL

MySQL is a relational database management system (RDBMS) that run as a server which is providing multi-user access to a number of databases. The SQL phrase stands for Structured Query Language. MySQL works on many different system platforms including Microsoft Windows, Symbian, Linux, and etc.

SQL contains two sublanguages which is a Data definition Language (DDL) and Data Manipulation Language (DML). DDL is use to describe the scheme of database tables. The SQL statements that contain in the DDL are CREATE, ALTER, and DROP object. This statement is to remove database objects such as databases, tables, column and indexes.

DML is to encompass all the operations that manipulate the data. The four generic operations that is contains in DML that are manipulating the database, are retrieval, insertion, deletion and modification.

2.5   Hardware and Software Requirement

The hardware and software tools that will be use to develop this prototype is:

Table 1.2: Hardware Tools

Hardware	Description
Laptop	Workspace with Windows 7 Ultimate Intel Core Duo 1.50 of RAM System Type 32- bit OS
Thumb drive4GB	Backup data and files.

Table 2.3: Software Tools

Software	Description
Microsoft Office 2007 Microsoft Words Microsoft Visio	Documentation and report. Flowchart, Data Flow Diagram and UML diagram.
EasyPHP	Database application.
Adobe Dreamweaver CS3	Develop interfaces design and coding
Microsoft 7 Ultimate	Operating system that will be used during the development.
Kaspersky Internet Security Antivirus	To protect and remove virus.

2.6   Chapter Summary

We can conclude in this chapter that there are many ways to implement and develop a same system with a different techniques and software tools. As the result, we can get the same requirements of the system.

In this chapter we also using the method that we want to implement this prototype based on our research. The method that has been choosing to implement this system is Rapid Application Development (RAD). The software tools also have been state in this chapter like the database tools and programming language will be use to develop it. Hardware and software requirement also has been mentioned in this chapter.

CHAPTER 3

METHODOLOGY

3.0   Introduction of Methodology

This chapter is discusses about the methodology and the software process that will be implement in the production of Expert System Auto Generate Template Men Cloth for user. The methodology that will used to develop this project is Rapid Application Development (RAD). There are four phase in RAD method which is Requirement Planning, User Design, Construction and Cutover.

There are four phases that will be discuss in this chapter which is consist Planning Requirement, User Design, Construction and Cutover stages. These phases are same with the traditional SDLC, but the phases ate shortened and combined with each other to produce a better streamlined technique of the development [6].

In the planning requirement phase, it is discussed about on how the requirements and information that are discussed and get an agreement from each of

member in the team. It is known as Concept definition stage that it is defines the functions, objective and determines the scope of the system [7].

In the next stage which is user design, it is discuss about the flow of the system and its function, also the context diagram and DFDs, the database design and data dictionary. It is known as the Functional Design Stage that to build a working prototype of system components [7].

Construction phase is the phase where the system is in development stage with its function. This is where this stage completes the development of the interface application of the system, builds the functionality in the system and implementation [7].

The last phase is cutover phase which is we known it as deployment stage [7]. It is included the final user testing and the implementation of the application of the system. If any bugs appear during the testing, this system will be fixing in this phase.

Requirements Planning

- Determine Objectives.

- Analysis on techniques, tools language , etc

User Design

- Flowchart

- Architecture design

- System Interface

- Database Design

- User Interface

Construction

- Process of the system

- Testing

- Error handling

Cutover

- Deliver to the user

- Reconstruct error
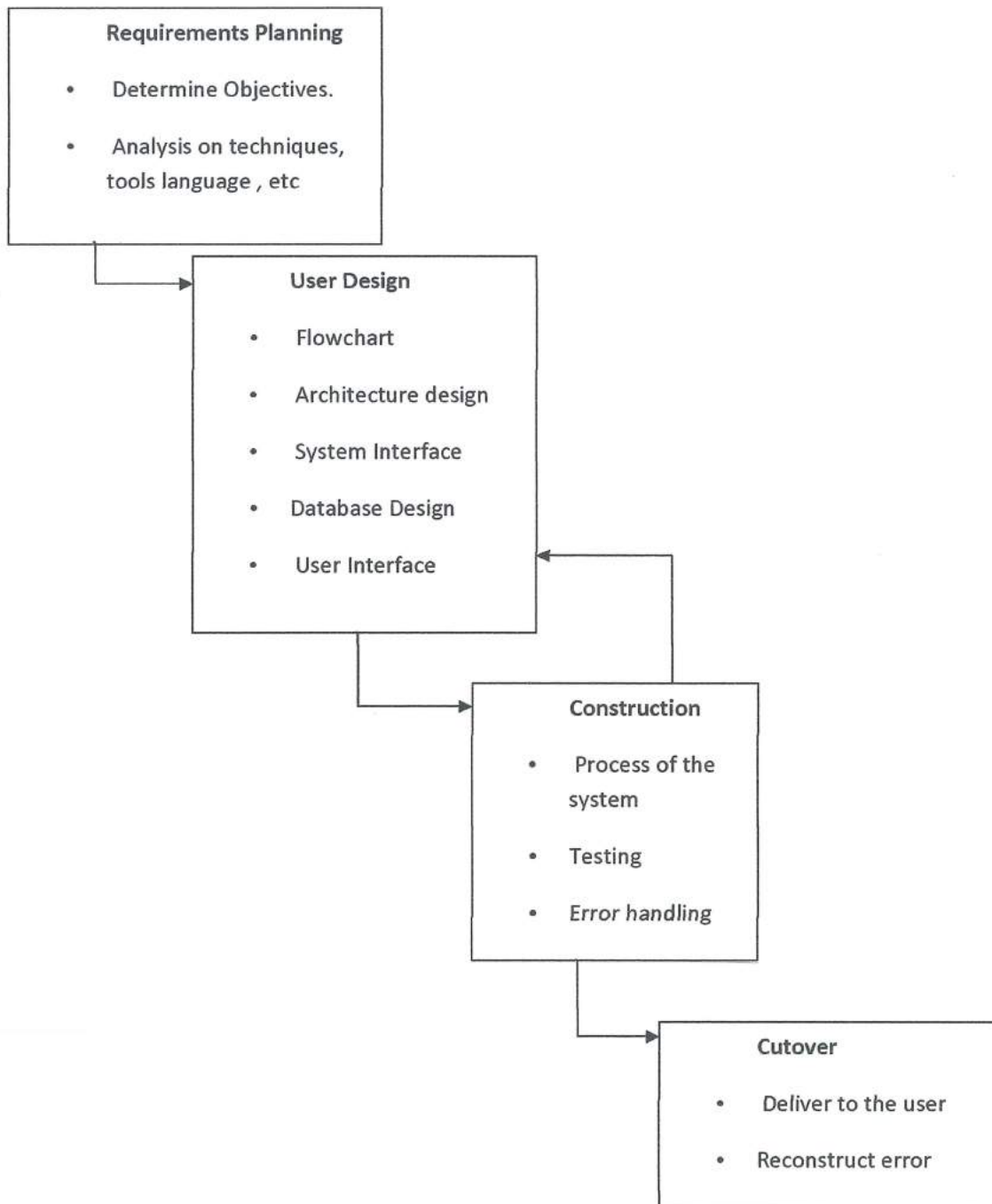
Figure 3.0: Rapid Application Development (RAD) Diagram

3.1   Requirement and Planning Phase

In the Rapid development phase, it consist of several phase which are requirement and planning phase, user design phase, construction phase and cutover phase. For the Gantt chart can refer Appendix A.

In the requirement phase, first is to determine the objective of the prototype. In this prototype, it is focusing on to develop a prototype that can generate template cloth after inserting the input. So, it is to make an easier work for the tailor to accurate every part of cloth with an auto generate template.

To get the information of about the measurement, an interview has been made at the Kim Garment shop. The question that we ask is about what is main point of the measurement that needs to take. We also ask whether to make a complete pola is take a longer time than from the expected time. The last question that we ask is if this prototype is successful developing, would they use this prototype to generate the pola. Below is the example of the template for inserting the measurement of user.

3.2 Design Phase

The design phase is involving with the architecture design, system design, database design and the last one is interface design. For the architecture design it is explain about the flow of the prototype by using network architecture. The system design is explain about the flow chart, context diagram and data flow diagram for this prototype. In the database, we will explain about the type of data dictionary, and also the ERD diagram. The last one is the interface design which is the explanation about the design interface of this prototype.

3.2.1 Architecture Design

Below is the example for the architecture design for this prototype. The explanation for the architecture design is below this figure.
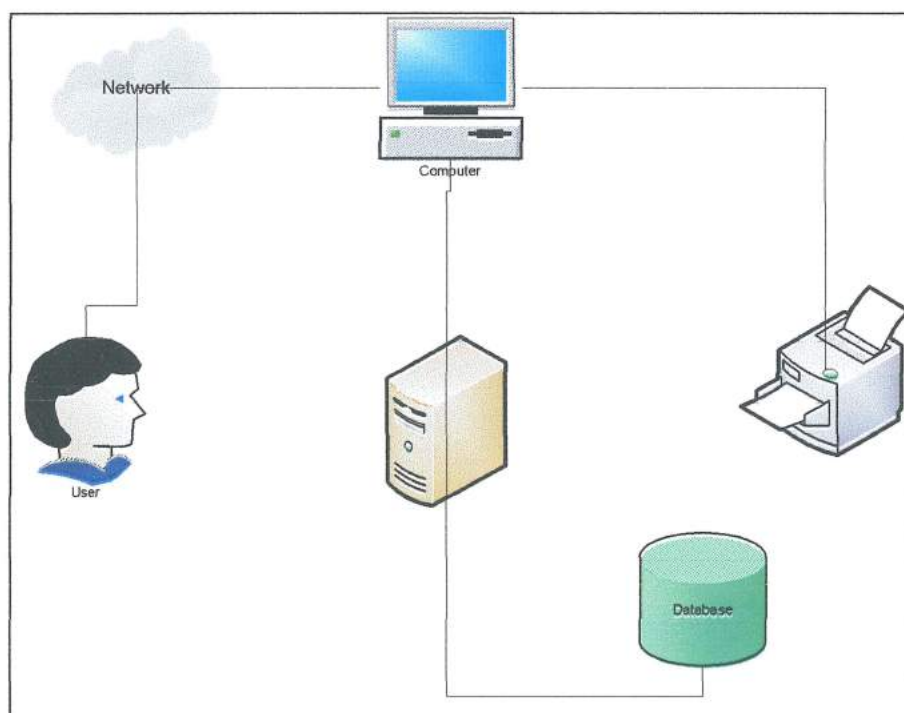
Figure 3.3: Architecture Design for Auto Generate Template Men Cloth

Figure above explain the flow for the prototype that have been proposed. First, the user that are member for this prototype needs to login to access for the next page. User needs to connect to the network first using computer to access to this service. Then, user needs to input their measurement of the body. The measurement will be

saving and stored in the database. After complete insert the measurement, the template of pola will be generate based on their input of their measurement.

3.2.2 System Design

In the system design, it is contribute with flowchart, context diagram and data flow diagram .The process will show details in the context diagrams and advanced in the DFDs. DFD's will be produce by starting with the level 0 that show some of the details of the system being modeled [3]. Below is the flowchart for this prototype. The explanation of this flowchart will be explained below the figure.

```
                        ┌──────────────┐
                        │    Start     │
                        └──────┬───────┘
                               │
                               ▼
                        ┌──────────────┐
                        │ Register and │
                        │ Login into   │
                        │ the Prototype│
                        └──────┬───────┘
                               │
                               ▼
                        ┌──────────────┐
                        │ Choose Type  │
                        │ of Cloth     │
                        │ Template     │
                        └──────┬───────┘
                               │
                               ▼
                       ╱────────────────╲
                      ╱  User Fill in     ╲
                      ╲  Body Measurement ╱
                       ╲────────────────╱
                               │
                               ▼
                        ┌──────────────┐
                        │ Generate the │
                        │ Measurement  │
                        │ Data         │
                        └──────┬───────┘
                               │
                               ▼
                        ┌──────────────┐
                        │ View the     │
                        │ Template     │
                        └──────┬───────┘
                               │
                               ▼
                        ◇──────────────◇
          Yes          ╱ Edit Template  ╲        No
      ◄────────────────  measurement     ────────────►
                        ◇──────────────◇
                               │
                               ▼
                        ┌──────────────┐
                        │ Print the    │
                        │ template     │
                        └──────┬───────┘
                               │
                               ▼
                        ┌──────────────┐
                        │     End      │
                        └──────────────┘
```

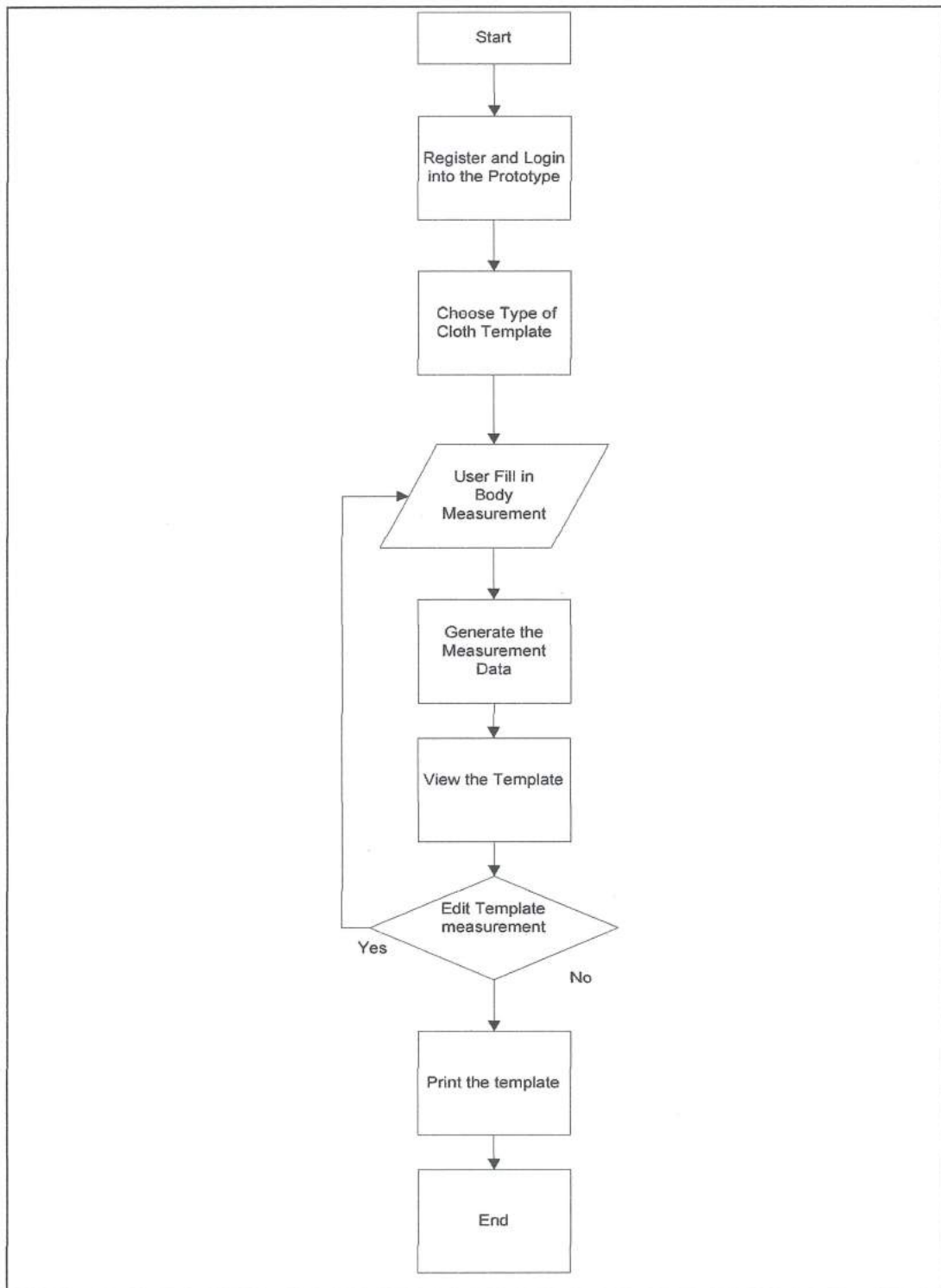**Figure3.2: Flowchart for Auto Generate Template Men Cloth**

Figure above is the flowchart for this prototype. First user needs to login to enter to the system, but before they can login, user needs to register first and become a member. After user have login, they can insert their body measurement. Body measurement that has been inserted by user that is a member will be stored in the database. After that, this prototype will generate the pola template based on user body measurement that they have inserted. If user wants to make a change in their measurement, they can go back to the page of insert measurement and then save it again and the database will update the new measurement of the user.
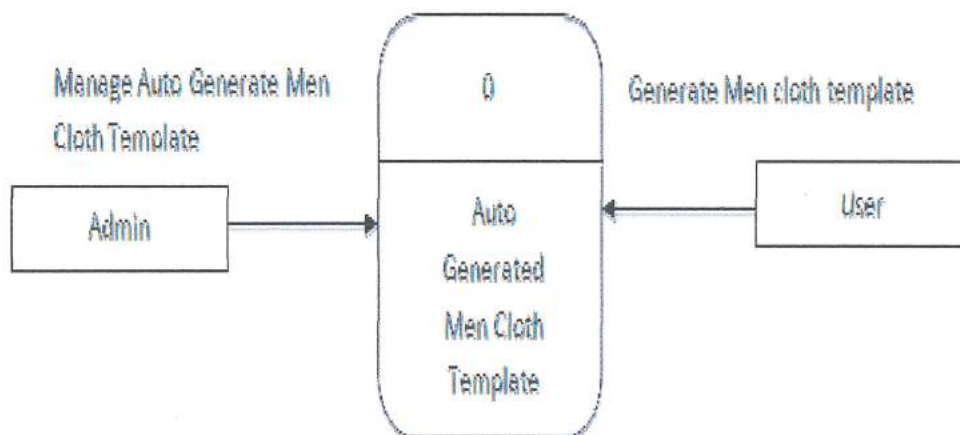
Figure 3.3: Context Diagram for Auto Generate Template Men Cloth

Figure above shows the context diagram of proposed prototype. This prototype can be use for user and administrator. This prototype is needs to be register first before

can login and access to the next page. User can insert their body measurement by themselves and they can change it when they want to. Admin can view the user information and measurement. Admin also can delete the user that is not active.
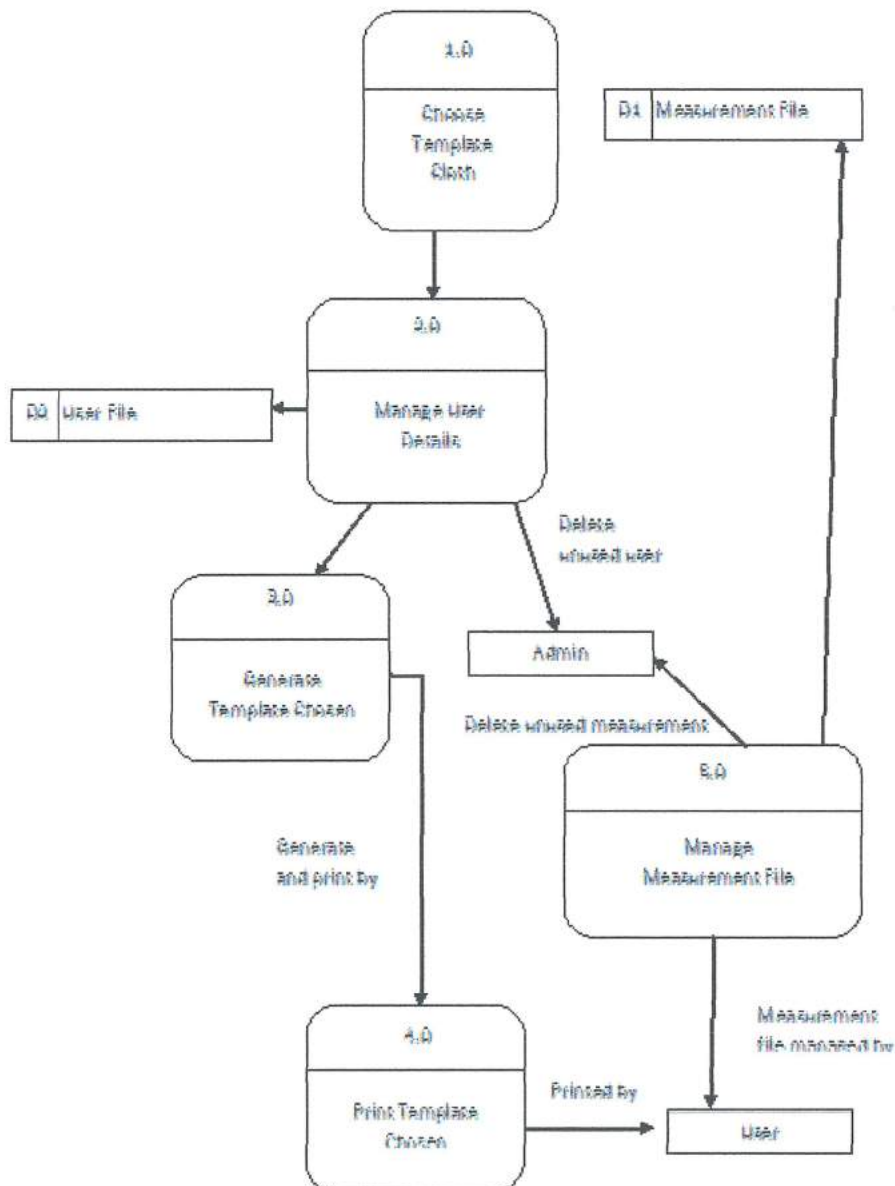
Figure 3.4: Data Flow Diagram Level 0 Auto Generate Template Men Cloth

Figure above shows that the Data Diagram Level 0 for this prototype. First user will choose the template that has in this prototype which is baju melayu. Then user also can update their profile. For the admin, admin can delete and view the user that is not active. Then user can insert their measurement body or they can update it. After complete this step, the template will generate and they can print the template.
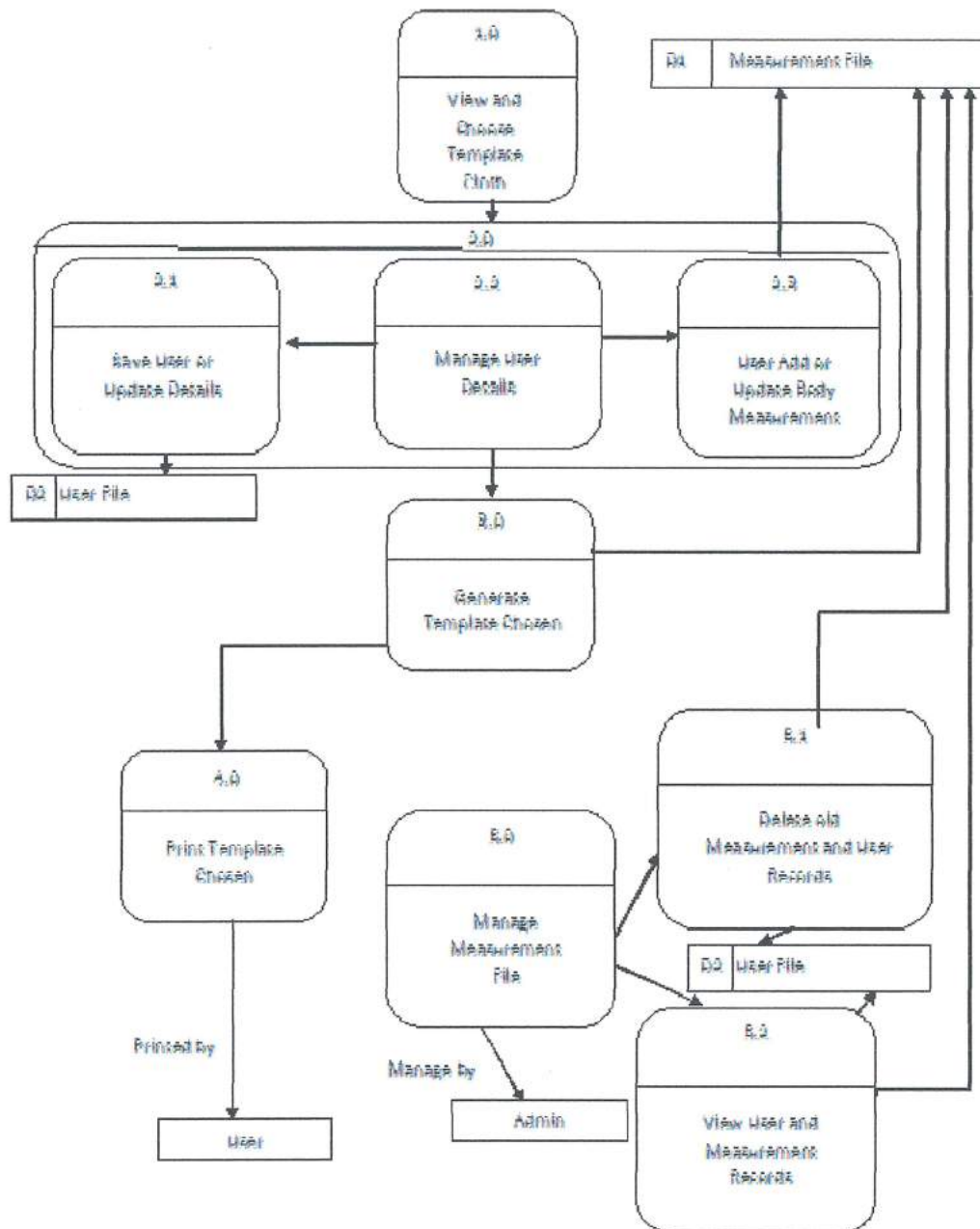
Figure 3.5: Data Flow Diagram Level 1 Auto Generate Template Men Cloth

In the figure above illustrates the Data Flow Diagram (DFD) Level 1. This prototype can use by any user, so they need to login first. It is start with the page home for user to view. The measurement of the user will be inserted by user. All the data of the cloth which are baju melayu and pants will be stored in the database. User can update the measurement of their body measurement size. When the entire step has finished, the pola template will be generating based on the measurement that have been inserted.

3.2.3   Database Design

The database design of Auto Generate Template for Men Cloth provided by the diagram Level 0 DFD that enable the overall entities to be defined.

User can view the updated data record of measurement of size of cloth. User just needs to insert the measurement and the data will be stored in the database. Below is the figure of the ER-Diagram for this prototype that will be explained in the below of this figure.
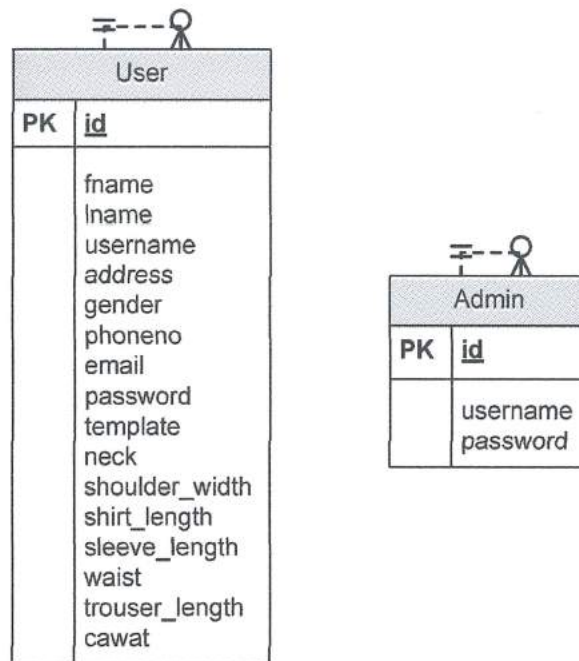
Figure 3.6: ER-Diagram Auto Generate Template Men Cloth

Figure above is explained about ER-diagram of this prototype. In the ER-Diagram, there is table for user and admin. In the user table, it is containing the username, password, and the details of user profile for example like address, telephone number and etc. In the user table also contain the measurement of their body like neck, shirt length, sleeve length, Shoulder length and etc. For the admin table in username and password which is the username and password is set as default.

Below is the table of the data dictionary for the database which is including for user and admin.

Table 3.1: Data Dictionary for Admin

Field Type	Description	Data Type	Constraint
ID	Unique identification	Integer	Primary Key
Username	Username to login	Varchar2	
Password	Password to login	Varchar2	

Table 3.2: Data Dictionary for User

Field Type	Description	Data Type	Constraint
ID	Unique identification	Integer	Primary Key
Fname	First name	Varchar2	
Lname	Last name	Varchar2	
Username	Username to login	Varchar2	
Address	Address of user	Varchar2	
Gender	Gender of user	Varchar2	
Phoneno	Phone number of user	Varchar2	
Email	Email of user	Varchar2	
Password	Password to login	Varchar2	
Template	Template to choose		
Neck	Measurement for neck	Float	
Shoulder_width	Measurement for width of shoulder	Float	
Shirt_length	Measurement for length of shirt	float	
Sleeve_length	Measurement for length of sleeve	Float	
Waist	Measurement for waist	float	
Trouser_length	Measurement for length of trouser	Float	
cawat	Measurement of cawat	float	

3.2.4 Interface Design

The prototype is design by using the Adobe Dreamweaver CS3. The flows of this prototype are from the home page until the templates are generated and it is ready to be print out. The design of the prototype for this system can be seen as below:
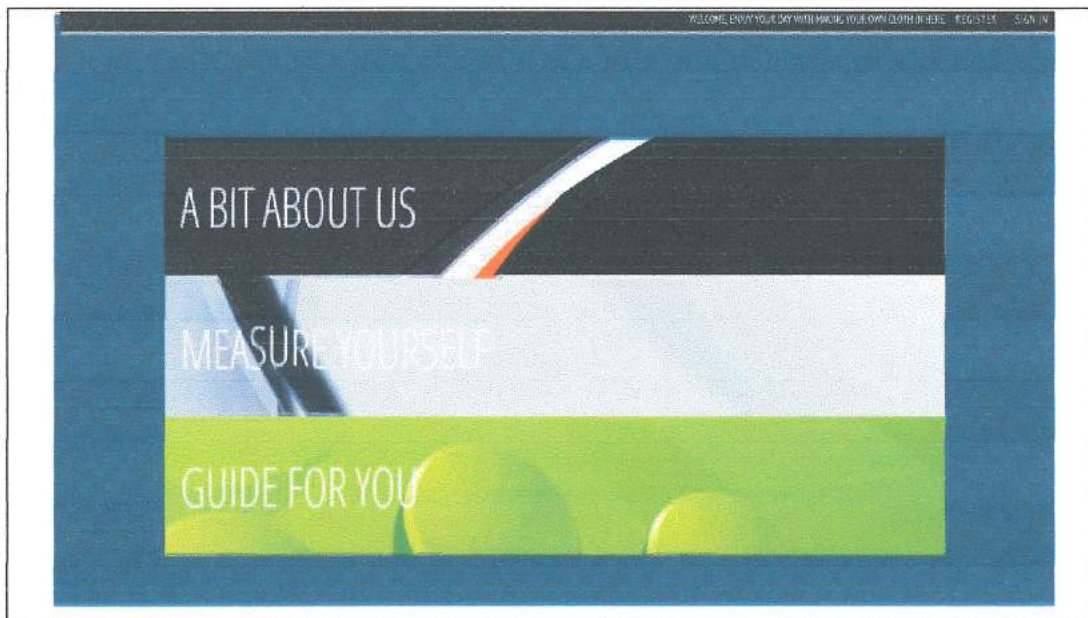
Figure 3.7: Home Page

This figure is shows the prototype home page for the user that not login. As shown above, it is have three options that can be choose by user. First option is about our prototype and the contact number if user wants to ask details about this prototype. The second option is about measurement that will connect to the interface of measurement. User can view this page, but they cannot save their measurement to the

database because they need to login first. And the third option is it will link to the interface of guide to help user how to take a correct measurement of their body.
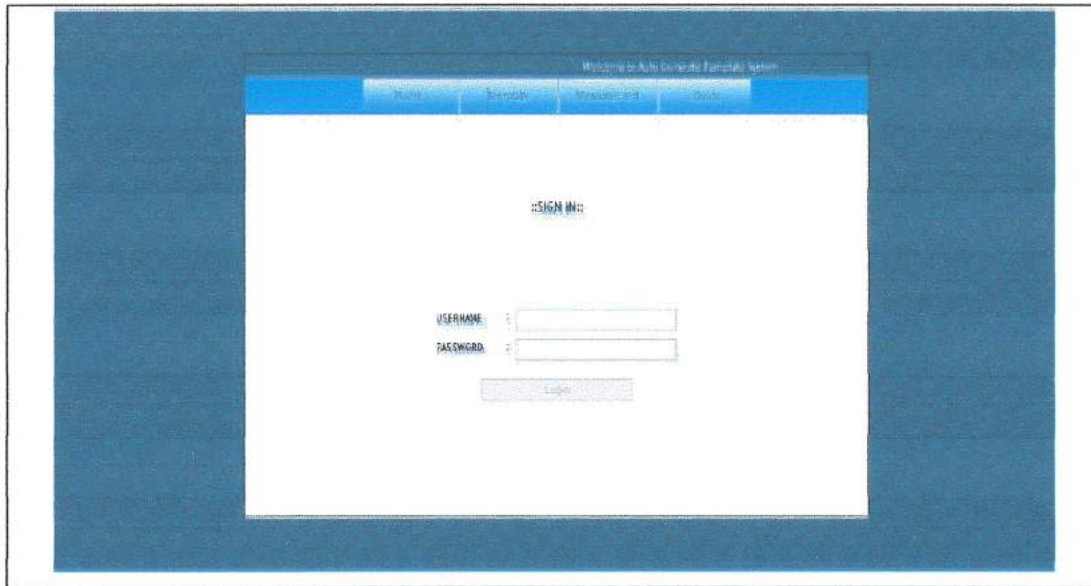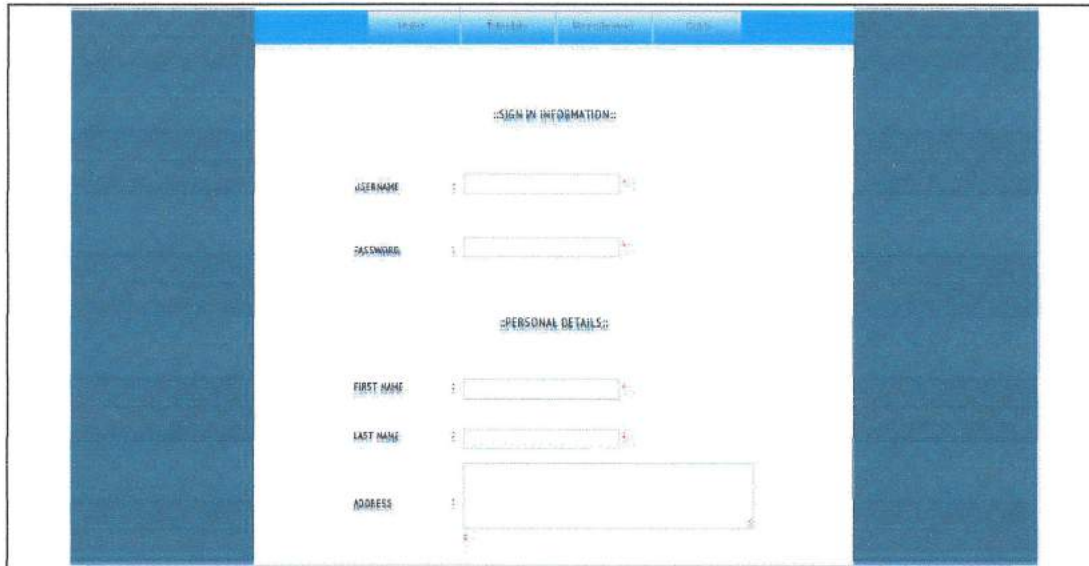
Figure 3.8: Sign In Page

This interface is shows about the sign in page. User need to sign in first by inserting the correct username and password to access to the next page. When they hit the button login, they will completely success to login to this prototype.

Figure 3.9: Register Page

The interface above shows the interface for user to register so that they can become a member to this website. They need to fill in the form about their personal details like username, password, name address and etc. when they submit the register form, they are automatically become a member.

Figure 3.10: Insert Measurement Page

     The figure above shows that the interface of measurement where user needs to insert their measurement of body. The measurement that needs to be input is neck, shoulder width, shirt length, sleeve length, waist, trouser length, and loin cloth. All of this measurement is the main point of body measurement that needs to be input so that it can get another point to make a complete template. The implementation of this pola will show in the chapter 4.
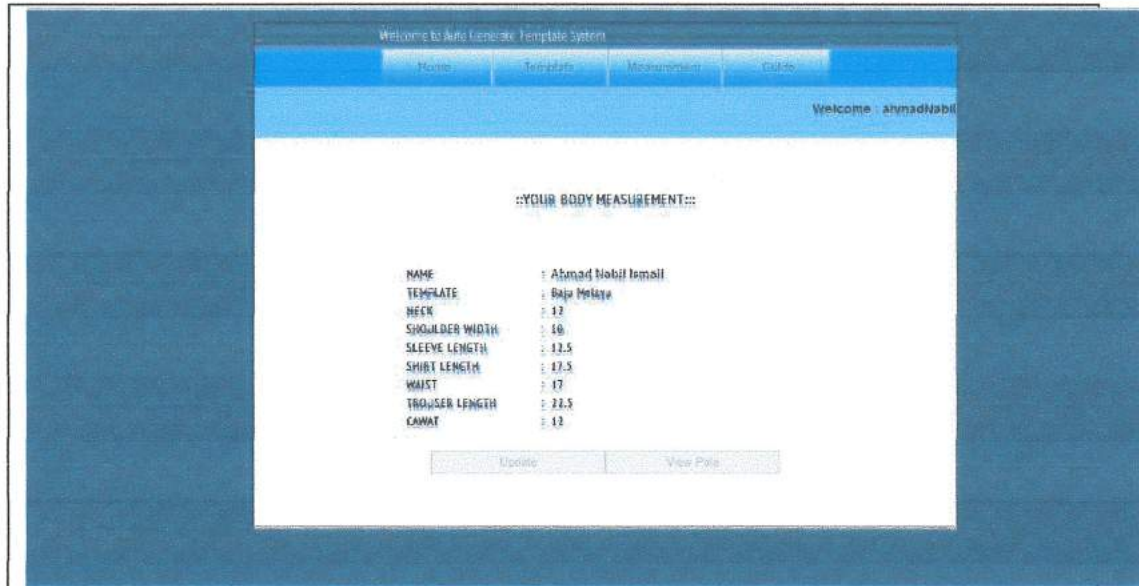
Figure 3.11: View Measurement Page

This figure is shows that the interface for the body measurement of user who already inserted it. They can view their body data and they also can change the measurement if there is anything they want to changes. If they do not want to change it, they can proceed to another step which is view the pola of the cloth. They need to hit the button of the view pola to view the pola that are generated based on their body measurement.

38
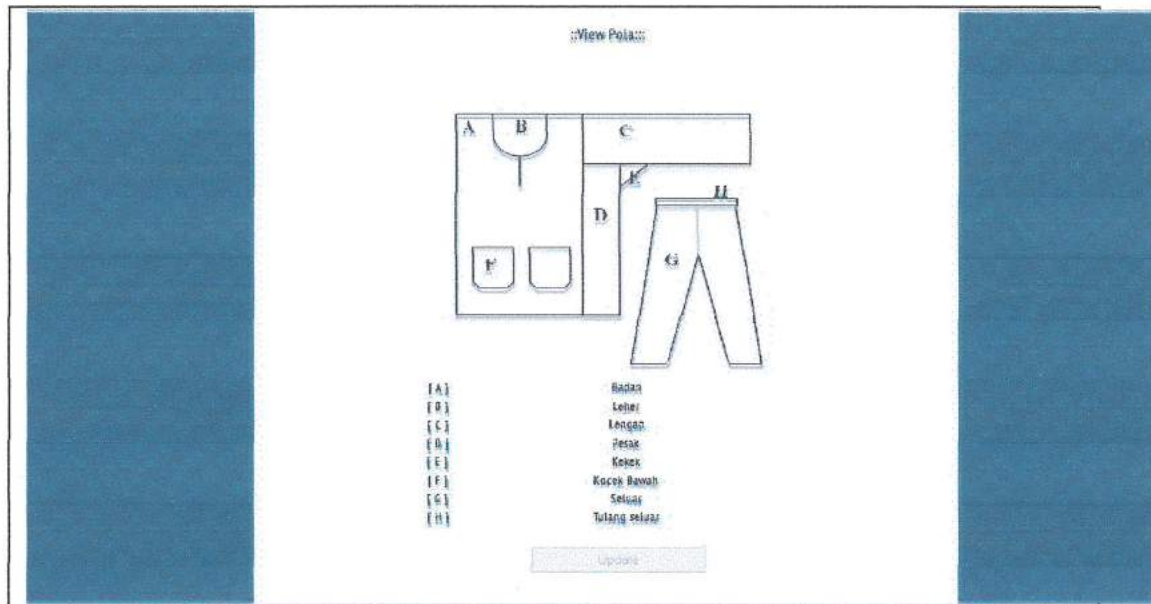
Figure 3.12: View Pola Measurement Page

This figure shows that the interface to view all the pola. User can choose which one of the pola part they want to view. They need to click the word of state in the interface. Each of the word will link to the each pola part that are related.
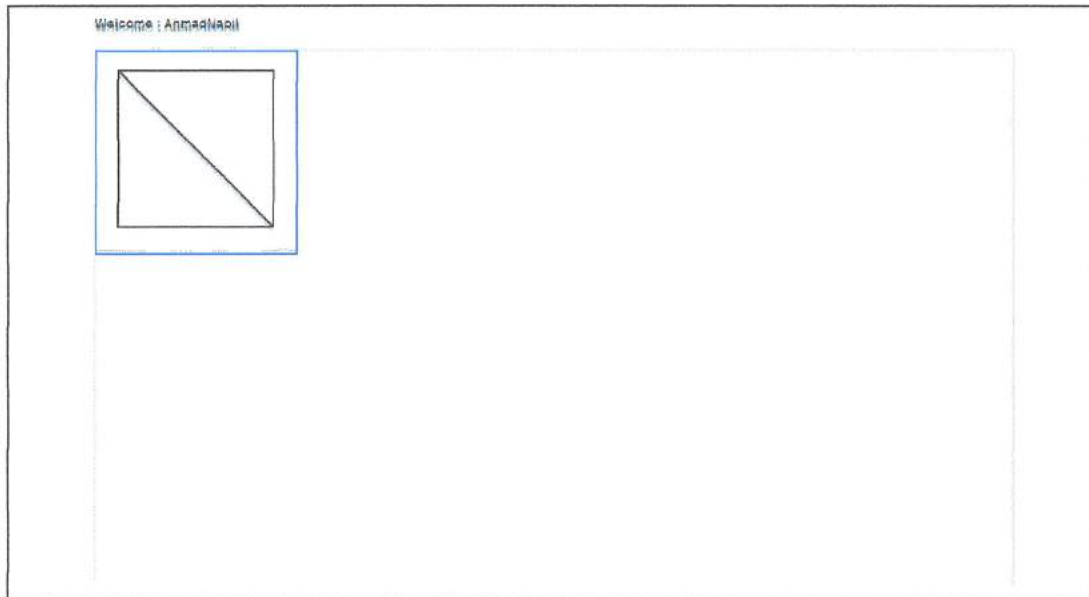
Figure 3.13: View Part of Pola Measurement Page

This figure shows that one of example for the pola. This pola is Kekek part. The pola that are included to make a baju Melayu is body, sleeve, pesak, kekek, pocket, neck, and trouser part. Every part of the pola will be generated following the measurement of user.
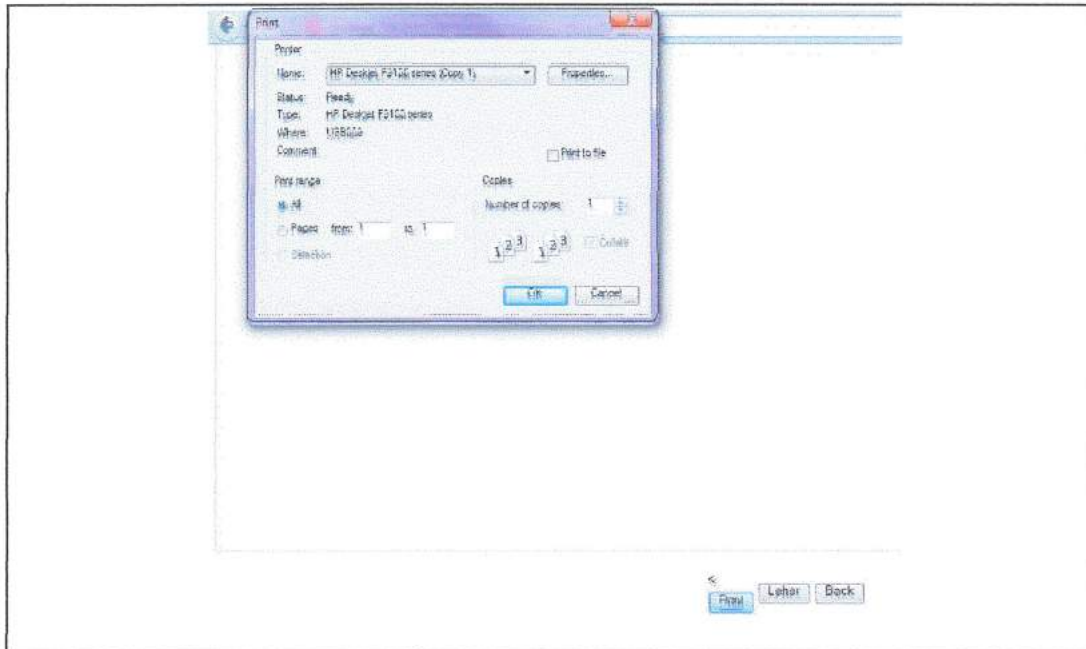
Figure 3.14: Print Part of Pola Measurement Page

The figure above shows that the setting to print the pola. User needs to click the button of the print so that the popup for the setting to print will show. User can print as much as they want. The size of the paper to print is A4, but it needs to use a lot of paper and user needs to combine if the pola is big.

3.3 Construction Phase

In the implementation phase, certain of software will be use to develop the whole of the system. For this prototype, the tools that will be use are Adobe Dreamweaver as the programming language including the design of the interfaces. The database tools that will be use is MySQL and the platform of the database is prefer by using PHP.

In the end of this phase, this system is ready for testing errors and the prototype is will be integrated. When this phase is completed, the prototype is in a steady-state production and it is in ready to be reviewed to ensure that the goals in the project plan are achieve the satisfaction result [8]. The testing will be done to make a test on the system that has been develop. Testing will be done for the overall system to test the usability and functionality of the system. The outputs that will get from the testing are the complete of the system and testing report.

The testing will be done by using black-box testing. Black-box testing is generally to test the functionality of the prototype and to test whether an error is occurred during doing the testing. The aspects that are included for black-box testing are:

i.   Coding
  • The coding structure will be check to analyze whether there is some bad error occurred.

ii. Interface
  • The interface for this prototype will be check to test that the functionality and non-functionality is functioning and if there is not functioning it is need to be fix in cutover phase.
  • It is also to check whether the interface is linked in the correct interface.

iii. Input Output
  • Input output is been test by inserting the input to check whether the output is come out what it is been expected by user. For example of this prototype, they need to insert their body measurement to generate pola cloth. And for the output need to be correct which is the pola template will be generate based on their measurement of body.

3.3.1 Test Case Specification

Test case specification is use when to test the whole prototype by inserting the functioning to be test in the table following the test item and the actual result. Below is the prototype of the test case specification.

3.3.1.1 Login Page

Table 3.3: Test specification for Login Page

Test Case Identifier :	TC_LOGINUSER
Objective :	To testing the user login page

Test Case Identifier	Test Item	Expected Result	Actual Result	Precondition
TC01_LUC	Username and password wrong	Cannot login	Pass	User needs to registers as a member
TC02_ LUC	Username and password wrong	Cannot login	Pass	User key in wrong username and password
TC03_ LUC	All data complete fill	Can click submit and data save	Pass	User needs to registers as a member
TC04_ LUC	Username and Password blank	Cannot Login	Pass	User needs to registers as a member
TC05_ LUC	Username and Password not	Cannot Login	Pass	User needs to registers as a

	blank			member
TC06_ LUC	Username and Password complete fill	Can login	Pass	User needs to registers as a member

Table 3.4: Test procedure for Login Page

Test Case Identifier :	TC_LOGINUSER
Objective :	To testing the user login page

Test Procedure Identifier	Input Data	Expected Result	Actual Result	Precondition	Test Case Relate
TC01_ LUP	Username :"ahmadNabil" Password:"211111"	Cannot login; appear error message "Incorrect login name or password. Please try again..."	Pass	User should register as member to get username and password	TC01_LUC
TC02_ LUP	Username :"ahmadNabil" Password:"dasfefeg"	Cannot login; appear error message "Incorrect login name or password. Please try again..."try again..."	Pass	User should register as member to get username and password	TC02_LUC
TC03_ LUP	Username :" ahmadNabil" Password:"210989"	Can login	Pass	User should register as member to get username and password	TC03_LUC TC05_LUC and TC06_LUC
TC06_ LUP	Username :"" Password:"" Blank	Cannot login; appear error message "Incorrect login name	Pass	User should register as member to get username and password	TC04_LUC

		or password. Please try again..."			
TC07_ LUP	Username :"" Password:"staaa"	Cannot login; appear error message "Incorrect login name or password. Please try again..."	Pass	User should register as member to get username and password	TC04_LUC
TC08_ LUP	Username :"ahmadNabil" Password:""	Cannot login; appear error message "Incorrect login name or password. Please try again..."	Pass	User should register as member to get username and password	TC04_UL
TC09_ LUP	Username :" ahmadNabil" Password:"210989"	Can login	Pass	User should register as member to get username and password	TC03_LUC TC05_LUC and TC06_LUC

3.3.1.2 Home page Before Login

Table 3.5: Test specification for Home Page before login

Test Case Identifier :	TC_HomePage
Objective :	To testing the home page before login

Test Case Identifier	Test Item	Expected Result	Actual Result	Precondition
TC01_HP	Hyperlink login(user)	Directed to user login page	Pass	-can access the prototype of login -Can view Home page (Home.php)

TC02_HP	Hyperlink register	Register page	Pass	-can access the prototype of register -Can view Home page (Home.php)
TC03_HP	Hyperlink measurement	Measurement Page	Pass	-can acess the prototype of measurement -Can view Home page (Home.php)
TC04_HP	Hyperlink choose template	Template page	Pass	-can access the prototype of template -Can view Home page (Home.php)
TC05_HP	Hyperlink guide	Guide page	Pass	-can access the prototype of guide -Can view Home page (Home.php)

Table 3.6: Test Procedure for Home Page before login

Test Procedure Specification Identifier:	TC_HomePage
Objective:	Testing Home Page before login

Test Procedure Identifier	Input Data	Expected Result	Actual Result	Precondition	Test Case Relate
TC01_HBP	Click hyperlink login	Direct to user login page	Pass	-can access the prototype of login -Can view Home page (Home.php)	TC01_HP
TC02_ HBP	Click hyperlink register	Direct to register page	Pass	-can access the prototype of register -Can view Home page (Home.php	TC02_HP

TC03_ HBP	Click hyperlink measurement	Direct to register page	Pass	-can acess the prototype of measurement -Can view Home page (Home.php)	TC03_HP
TC04_HP	Click hyperlink choose template	Direct to Template page	Pass	-can access the prototype of template -Can view Home page (Home.php)	TC04_HP
TC05_HP	Click hyperlink guide	Direct to Guide page	Pass	-can access the prototype of guide -Can view Home page (Home.php)	TC05_HP

3.1.7 Cutover Phase

The last phase is cutover phase which is it is the maintenance to correct it follow from the specification, design, implementation documentation [9]. In this phase, all the life cycle steps will be repeated to occur any of failure and error that can make the prototype is not functioning exactly that have been target in the objective which is to make a prototype and to facilitate the accurate measurement of cloth size. If there are any errors and bugs found, it will be fixed in this phase.

CHAPTER 4

IMPLEMENTATION

4.0   Introduction

This chapter is discusses about the implementation of the prototype. We will discussed on how the process behind the development of this system with a description of the software that is used to develop each of the interfaces and also the function of the system.

4.1   Content Development

4.1.1   Code in PHP

```php
<?php

$host="localhost"; // Host name

$username="root"; // Mysql username

$password=""; // Mysql password

$db_name="cloth"; // Database name
```

```
$db = mysql_connect("$host", "$username", "$password") or die ("Error connecting to
database.");

mysql_select_db("$db_name", $db);

?>
```

Figure 4.1: Connection.php

Figure above show the code of connection which is to connect MySQL to the database. What are needed to be included in this code are the privileges of the host for PHPadmin which is to identify host, username, and password and database name.

```
<?php

$con = mysql_connect("localhost","root","");

if (!$con)

 {

 die('Could not connect: ' . mysql_error());

 }

mysql_select_db("cloth", $con);

$sql="INSERT INTO user (fname, lname, username, address, gender, phoneno, email,
password)

VALUES
```

```
('$_POST[fname]', '$_POST[lname]', '$_POST[username]',
'$_POST[address]','$_POST[gender]', '$_POST[phoneno]', '$_POST[email]',
'$_POST[password]')";

$sql1="INSERT INTO measurement (username, fname, lname)

VALUES

('$_POST[username]', '$_POST[fname]', '$_POST[lname]')";

mysql_query($sql1);

if (!mysql_query($sql, $con))

  {

  die('Error: ' . mysql_error());

  }

      echo '<div align="center">';

      echo '<p> </p>';

echo '<p><img src="loading.gif" longdesc="loading.gif" /></p>';

echo "You have Succesfully register. You May login Now.";

echo '<meta http-equiv="refresh" content="1;url=Home.php">';

mysql_close($con)

?>
```

Figure 4.2: Registerphp.php

Figure above shows the code for insert the information in the database. Example above is to insert a form of registration of user in the database for the first time and save their data in the database. If they success they will be a member for this prototype.

```php
<?php

ob_start();

$host="localhost"; // Host name

$username="root"; // Mysql username

$password=""; // Mysql password

$db_name="cloth"; // Database name

$tbl_name="user"; // Table name

// Connect to server and select databse.

mysql_connect("$host", "$username", "$password")or die("cannot connect");

mysql_select_db("$db_name")or die("cannot select DB");

// Define $myusername and $mypassword

$username=$_POST['username'];

$password=$_POST['password'];


// To protect MySQL injection (more detail about MySQL injection)

$username = stripslashes($username);
```

```php
$password = stripslashes($password);



$sql="SELECT * FROM $tbl_name WHERE username='$username' and password='$password'";

$result=mysql_query($sql);



// Mysql_num_row is counting table row

$count=mysql_num_rows($result);

// If result matched $myusername and $mypassword, table row must be 1 row

if($count==1){

// Register $myusername, $mypassword and redirect to file "login_success.php"

session_register("username");

session_register("password");

header("location:Successphp.php");

}

else {

echo '<meta http-equiv="refresh" content="1;url=Errorphp.php">';

}

//ob_end_flush();

?>
```

Figure 4.3: Checklogin.php

Figure above shows that the checklogin code for to login in the system before they can access the next page. Checklogin is functioning to check the login whether user input the correct username and password. If they input wrong username and password, it will go to the page error. And if it is success wit will go to the page success.

```php
<?php

        echo '<div align="center">';

        echo '<p> </p>';

        echo '<p><img src="loading.gif" longdesc="loading.gif" /></p>';

        echo '<br><h2><span class="style4">"Incorrect username or password. Please
try again..."</span></h2>';

        echo '</div>';

        echo '<meta http-equiv="refresh" content="3;url=Home.php">';

?>
```

Figure 4.4: Error.php

Figure above shows that if username and password is wrong during to login into the system, an error will show. The page of the interface will retrieved to the Home page if the input that user key in is wrong.

```php
<?php

session_start();

if(session_is_registered('username'))

{

        session_unset();

        session_destroy();

                echo '<div align="center">';

        echo '<p> </p>';

        echo '<p><img src="loading.gif" longdesc="loading.gif" /></p>';

        echo '<br><h2><span class="style4">"You have log out..."</span></h2>';

        echo '</div>';

        echo '<meta http-equiv="refresh" content="2; url=Home.php">';

}

else

{

        header("Location: Home.php");

}

?>
```

Figure 4.5: Logout.php

This figure shows the code which is when user wants to logout from the system. Once user clicks the link to sign out, it will destroy the session of the user that is login.

```php
<?php

    echo '<div align="center">';

    echo '<p> </p>';

    echo '<p><img src="loading.gif" longdesc="loading.gif" /></p>';

    echo '<br><h2><span class="style4">"Your login success..."</span></h2>';

    echo '</div>';

    echo '<meta http-equiv="refresh" content="1;url=Home_1.php">';

?>
```

Figure 4.6: Success.php

The figure above shows the code that when user is enter a correct username and password, then message that login is success will show and the user can access to the next page.

```php
<?php

include "Connectionphp.php";

$address = addslashes($_POST['address']);
```

```php
$phoneno = addslashes($_POST['phoneno']);

$email = addslashes($_POST['email']);

//$email = addslashes($_POST['email']);

//$address = addslashes($_POST['address']);

//$phone = addslashes($_POST['phoneNo']);

$username = $_REQUEST['username'];


mysql_select_db("cloth", $db);

mysql_query("UPDATE user SET address='$address', phoneno='$phoneno',
email='$email' WHERE username = '$username'");

if (!$db)

  {

die('Could not connect: ' . mysql_error());

  }

header("Location:View_Profile.php?username=$username");

//echo ('<script>alert("Your Profile has Successfully
Updated.");location.href=\'member_profile.php?ref=$ref\'</script>');

mysql_close($db);

?>
```

Figure 4.7: Update Profile.php

The figure above shows that the code to update the information of the user if there is any changes that user wants to make for their personal information. The code above is the example of code for update a user profile.

```php
<?php

                include ("Connectionphp.php");?>

        <?php

$username = $_GET['username'];

$result = mysql_query("SELECT * FROM user WHERE username='$username'");

//start loop

while($row = mysql_fetch_array($result))

{

?>

<td width="160"><span class="style13">Name :</span></td>

        <td width="224"><span class="style7">

        <label><font size="2"><?php echo $row['fname'];?> <?php echo
$row['lname'];?></font></label>

        </span></td>

        </tr>

        <tr>
```

```
<td><span class="style13">Email :</span></td>

<td><span class="style7"><font size="2"><?php echo
$row['username'];?></font></span></td>

</tr>

<tr>

<td><span class="style13">Address :</span></td>

<td><span class="style7">

<label><font size="2"><?php echo $row['address'];?></font></label>

</span></td>

</tr>

<tr>

<td><span class="style13">Gender :</span></td>

<td><span class="style7">

<label><font size="2"><?php echo $row['gender'];?></font></label>

</span></td>

</tr>

<tr>

<td><span class="style13">Mobile Phone :</span></td>

<td><span class="style7">

<label><font size="2"><?php echo $row['phoneno'];?></font></label>
```

```
        </span></td>
    </tr>
    <tr>
     <td><span class="style13">Email :</span></td>
     <td><span class="style7">
       <label><font size="2"><?php echo $row['email'];?></font></label>
     </span></td>
    </tr>
    <tr>
     <td><span class="style13">Password :</span></td>
     <td><span class="style7">
       <label><font size="2"><?php echo $row['password'];?></font></label>
     </span></td>
    </tr>
<?php
    }
    mysql_close();
        ?>
```

Figure 4.8: ViewProfile.php

This figure above shows that code to display all the information of the user for them to view it. They can view all the information of their personal details.

```php
<?php

include "Connectionphp.php";

$template = addslashes($_POST['template']);

$neck = addslashes($_POST['neck']);

$shoulder_width = addslashes($_POST['shoulder_width']);

$sleeve_length = addslashes($_POST['sleeve_length']);

$shirt_length = addslashes($_POST['shirt_length']);

//$wrist = $_POST['wrist'];

$waist = addslashes($_POST['waist']);

//$seat = $_POST['seat'];

$trouser_length = addslashes($_POST['trouser_length']);

$cawat = addslashes($_POST['cawat']);

$username = ($_REQUEST['username']);

mysql_select_db("cloth", $db);

mysql_query("UPDATE user SET template='$template', neck='$neck',
shoulder_width='$shoulder_width', sleeve_length='$sleeve_length',
shirt_length='$shirt_length', waist = '$waist', trouser_length='$trouser_length', cawat =
'$cawat' where username = '$username'");
```

```
if (!$db)

    {

    die('Could not connect: ' . mysql_error());

    }

    header("Location:Home_1.php?username=$username");

    mysql_close($db);

?>
```

Figure 4.9: Update Mesurement.php

This figure is shows about the code for update measurement of user body if there any changes they want to make. They can make an update by clicking the button update in the interface of the prototype. This code will function during the user click the button to update the data.

```
<?php

mysql_connect("localhost", "root", "") or die("no connection");

mysql_select_db("cloth") or die("no database");

$ref = $_REQUEST['ref'];

$query = "DELETE FROM user WHERE fname='$ref'";

$query1 = "DELETE FROM measurement WHERE fname='$ref'";

mysql_query($query) or die('<script>alert("Delete Not Complete");</script>');
```

```
mysql_query($query1) or die('<script>alert("Delete Not Complete");</script>');

echo "<meta http-equiv=\"refresh\" content=\"0;URL=admin_UserDetail.php\">";

?>
```

Figure 4.10: Delete User.php

This figure above shows that the code to delete the data in the database. This code is the example to delete the information or data of user that are not active and admin can delete it.

4.1.2 Code Using PHP and Javascript

```
<?php

session_start();

?>

<!DOCTYPE html><title>::Badan::</title>

<html>

 <?php

            include ("Connectionphp.php");?>

     <?php

 $username = $_GET['username'];

 $result = mysql_query("SELECT * FROM user WHERE username='$username'");
```

```
  //start loop

  while($row = mysql_fetch_array($result))

  {

  ?>

<style type="text/css">

<!--

.style23 {font-size: 12}

.style38 {font-family: "Lucida Grande", Arial, Sans-serif; font-weight: bold;}

.style39 {font-size: 14px;

      color: #000000;

}

-->

</style>

<body>

<link href="style.css" rel="stylesheet" type="text/css" />

 <link rel="stylesheet" href="printer.css" type="text/css" media="print" />

<p><span class="style39"><span class="style38"><span class="style23">

  <?php @session_start(); ?>
```

```
Welcome</span></span><span class="style38"> : <?php echo
$_SESSION['username'];

$username= $_SESSION['username'];?></span></span></p>

<p>

<canvas id="myCanvas" width="1200" height="1500" style="border:1px solid
#d3d3d3;">

        your browser does not support the canvas tag </canvas>

</p>

 <table width="167" border="0" align="center">

  <tr>

    <td width="54" height="104"><form name="form3" method="post" action="">

    <div class="printing" id="printing1">

        <label> <a href="Javascript:self.print()" />

        <input type="button" name="print2" id="print2" value="Print" />

        </label>

    </div>

   </form>

   </td>

   <td width="57"><form name="form1" method="post"
action="Lengan.php?username=<?php echo $row['username']?>">

    <label>
```

64

```
        <input type="submit" name="Lengan" id="Lengan" value="Lengan">

        </label>

      </form></td>

      <td width="42"><form name="form2" method="post"
action="viewpolar.php?username=<?php echo $row['username']?>">

        <label>

        <input type="submit" name="Back" id="Back" value="Back">

        </label>

      </form></td>

    </tr>

  </table>

<div align="center"></div>

  <p class="style39"> </p>

  <p class="style39"></p>

  <script type="text/javascript">

var c=document.getElementById("myCanvas");

var ctx=c.getContext("2d");



var x=0;

var y=0;
```

```
var size1 = (<?php echo $row['shoulder_width'];?>)*75;

var size2 = (<?php echo $row['shirt_length'];?>)*75;



ctx.strokeStyle="#0000CC";

ctx.lineWidth = 2;

ctx.beginPath();

ctx.moveTo(x,y);

ctx.lineTo(x+(size1/2),y);

ctx.lineTo(x+(size1/2),y+size2);

ctx.lineTo(x,y+size2);

ctx.closePath();

ctx.stroke();

var x1=25;

var y1=25;

ctx.strokeStyle="#000000";

ctx.beginPath();

ctx.moveTo(x1,y1);

ctx.lineTo(x1+((size1/2)-50),y1);

ctx.lineTo(x1+((size1/2)-50),(y1+size2)-50);

ctx.lineTo(x1,(y1+size2)-50);
```

```
ctx.closePath();

ctx.stroke();

</script>

 <?php          }

        mysql_close();

               ?>

        </html>
```

Figure 4.11: Coordinate for Body Part

Figure above is code for the coordinate of the body part. The start point of the point is 0,0. To start with the next point of x and y, the measurement of the shoulder width is taken which is the data is taken from the database. For the next coordinate, it is taken from the shirt length to set the length of the shirt. The code for this template is dividing by 2 because it is the half of the body part.
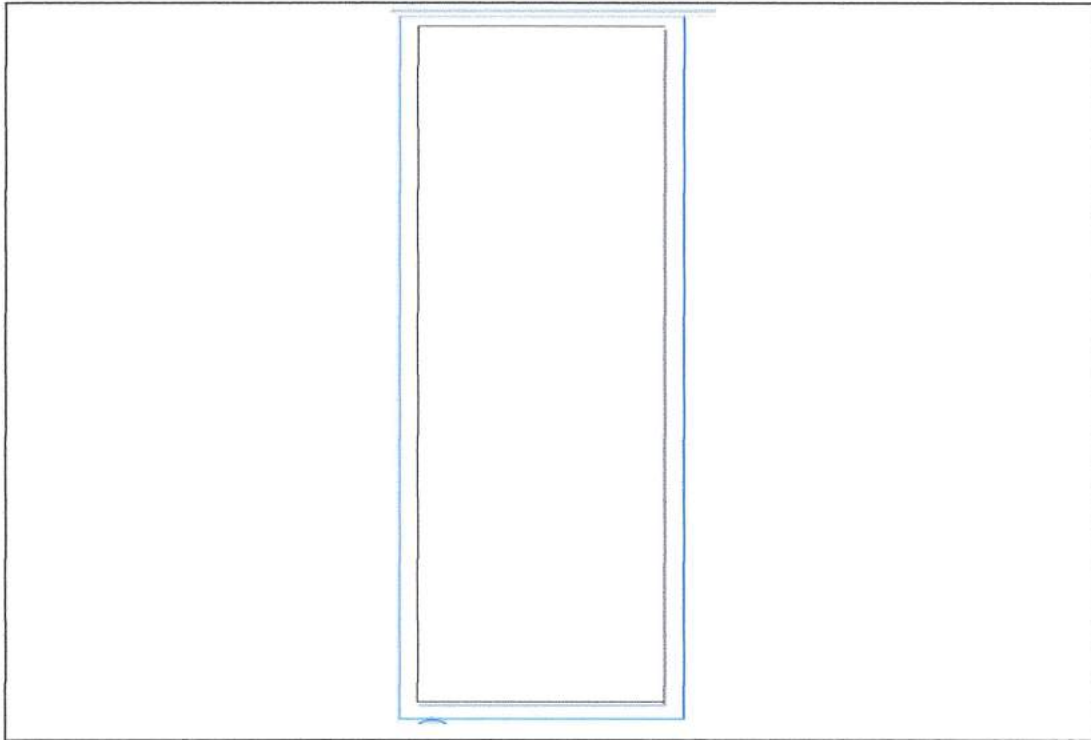
Figure 4.12: Coordinate for Body Part

The figure above is shows that the figure of body part using coordinate which is use to make the template cloth for this system. This is a half of body part. There are have two lines of the template because it is needed for user to identify the actual size and the extra part of template. The blue line is the extra part and the black line is the actual size that is user key in.

```php
<?php

session_start();

?>
```

```
<!DOCTYPE html><title>::Pesak::</title>

<html>


<?php

            include ("Connectionphp.php");?>

      <?php

$username = $_GET['username'];

$result = mysql_query("SELECT * FROM user WHERE username='$username'");

//start loop

while($row = mysql_fetch_array($result))

{

?>

<style type="text/css">

<!--

.style23 {font-size: 12}

.style38 {font-family: "Lucida Grande", Arial, Sans-serif; font-weight: bold;}

.style39 {font-size: 14px;

     color: #000000;

}

-->
```

```
</style>

<body>


<link href="style.css" rel="stylesheet" type="text/css" />

 <link rel="stylesheet" href="printer.css" type="text/css" media="print" />


<p><span class="style39"><span class="style38"><span class="style23">

   <?php @session_start(); ?>

Welcome</span></span><span class="style38"> : <?php echo
$_SESSION['username'];

$username= $_SESSION['username'];?></span></span></p>

<p>


<canvas id="myCanvas" width="1000" height="1000" style="border:1px solid
#d3d3d3;">

        your browser does not support the canvas tag </canvas>

  </p>


 <table width="153" align="center">

  <tr>
```

```html
<td width="42"><form name="form3" method="post" action="">

  <div class="printing" id="printing1">


      <label> <a href="Javascript:self.print()" />

      <input type="button" name="print2" id="print2" value="Print" />

      </label>

  </div>

</form>

</td>

<td width="49"><form name="form1" method="post"
action="Kekek.php?username=<?php echo $row['username']?>">

  <label>

  <input type="submit" name="Kekek" id="kekek" value="Kekek">

  </label>

</form></td>

<td width="49"><form name="form2" method="post"
action="viewpolar.php?username=<?php echo $row['username']?>">

  <label>

  <input type="submit" name="Back" id="Back" value="Back">

  </label>
```

```
    </form></td>

  </tr>

 </table>

<p class="style39"> </p>

<p class="style39"></p>

 <script type="text/javascript">

var c=document.getElementById("myCanvas");

var ctx=c.getContext("2d");


var x=0;

var y=0;

var size1 = (<?php echo $row['shoulder_width'];?>)*50;

var size2 = (<?php echo $row['shirt_length'];?>)*50;

ctx.strokeStyle="#0000CC";

ctx.lineWidth = 2;

ctx.beginPath();

ctx.moveTo(x,y);

ctx.lineTo(x+225,y);

ctx.lineTo(x+225-100,y+size2-(size1/2+50));

ctx.lineTo(x,y+size2-(size1/2+50));
```

```
ctx.closePath();

ctx.stroke();


var x1=25;

var y1=25;


ctx.strokeStyle="#000000";

ctx.lineWidth = 2;

ctx.beginPath();

ctx.moveTo(x1,y1);

ctx.lineTo(x1+(225-50),y1);

ctx.lineTo(x1+(225-100)-40.5,(y1+size2-(size1/2+50)-50));

ctx.lineTo(x1,(y1+size2-(size1/2+50)-50));

ctx.closePath();

ctx.stroke();


</script>

 <?php

      }

      mysql_close();
```

```
        ?>

</html>
```

Figure 4.13: Coordinate forPesak Part

Figure above is code for the coordinate of the pesak part. The start point of the point is 0,0. To start with the next point of x and y, the measurement is taken by formula that have make by tailor before. To make a pesak, there is need to have a logic measurement, so it will fix with the cloth. Usually the top of the pesak is taken about 2 inch and the bottom of the pesak is two times of the top. The length of pesak is taken from shirt length and minus by the half of sleeve length.
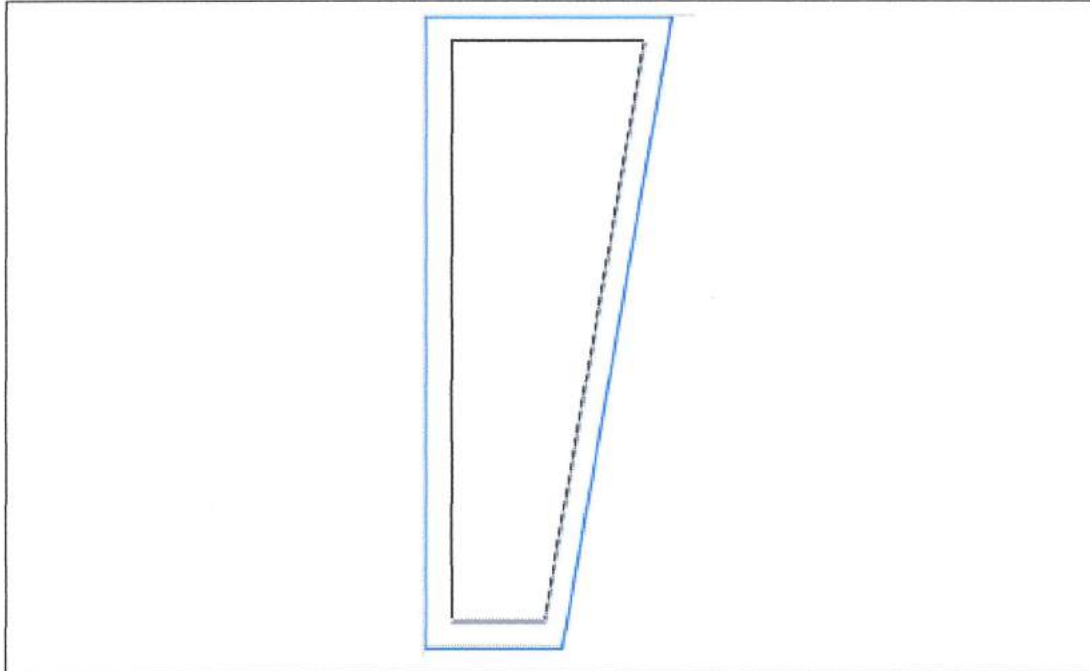

Figure 4.14: Coordinate forPesak Part

The figure above is shows that the figure of pesak part using coordinate which is use to make the template cloth for this prototype. There are have two lines of the template because it is needed for user to identify the actual size and the extra part of template. The blue line is the extra part and the black line is the actual size that is follow by the length of shirt and logic number that are made by professional tailor.

```php
<?php

session_start();

?>

<!DOCTYPE html><title>::Lengan::</title>

<html>

 <?php

            include ("Connectionphp.php");?>

     <?php

$username = $_GET['username'];

$result = mysql_query("SELECT * FROM user WHERE username='$username'");


//start loop

while($row = mysql_fetch_array($result))

{
```

```
 ?>

<style type="text/css">

<!--

.style23 {font-size: 12}

.style38 {font-family: "Lucida Grande", Arial, Sans-serif; font-weight: bold;}

.style39 {font-size: 14px;

      color: #000000;

}

-->

</style>

<body>

 <link href="style.css" rel="stylesheet" type="text/css" />

 <link rel="stylesheet" href="printer.css" type="text/css" media="print" />


<p><span class="style39"><span class="style38"><span class="style23">

  <?php @session_start(); ?>

Welcome</span></span><span class="style38"> : <?php echo
$_SESSION['username'];

$username= $_SESSION['username'];?></span></span></p>

<p>
```

```
<canvas id="myCanvas" width="2000" height="1000" style="border:1px solid
#d3d3d3;">

        your browser does not support the canvas tag </canvas>

</p>

 <table width="147" border="0" align="center">

  <tr>

   <td width="42"><form name="form3" method="post" action="">

    <div class="printing" id="printing1">


       <label> <a href="Javascript:self.print()" />

       <input type="button" name="print2" id="print2" value="Print" />

       </label>

      </div>

   </form>

   </td>

   <td width="49"><form name="form1" method="post"
action="Pesak.php?username=<?php echo $row['username']?>">

    <label>

    <input type="submit" name="Pesak" id="Pesak" value="Pesak">

    </label>
```

```
    </form></td>

    <td width="57"><form name="form2" method="post"
action="viewpolar.php?username=<?php echo $row['username']?>">

    <label>

    <input type="submit" name="Back" id="Back" value="Back">

    </label>

    </form></td>

  </tr>

 </table>

<p class="style39"></p>

<script type="text/javascript">

var c=document.getElementById("myCanvas");

var ctx=c.getContext("2d");


var x=0;

var y=0;

var size1 = (<?php echo $row['sleeve_length'];?>)*75;

var size2 = (<?php echo $row['shoulder_width'];?>)*75;

//luar

ctx.strokeStyle="#0000CC";
```

```
ctx.lineWidth = 2;

ctx.beginPath();

ctx.moveTo(x,y);

ctx.lineTo(x+size1,y);

ctx.lineTo(x+size1,y+(size2/2)+25);

ctx.lineTo(x,y+(size2/2)-25);

ctx.closePath();

ctx.stroke();

//dalam

var x1=25;

var y1=25;


ctx.strokeStyle="#000000";

ctx.lineWidth = 2;

ctx.beginPath();

ctx.moveTo(x1,y1);

ctx.lineTo(x1+(size1)-50,y1);

ctx.lineTo(x1+(size1)-50,(y1+(size2/2)+25)-50);

ctx.lineTo(x1,(y1+(size2/2)-25)-50);

ctx.closePath();
```

```
ctx.stroke();



</script>

<?php

        }

        mysql_close();

                ?>

        </html>
```

Figure 4.15: Coordinate for Sleeve Part

Figure above is code for the coordinate of thepeask part. The start point of the point is 0,0. To start with the next point of x and y, the measurement is taken by formula that have make by professional tailor. To make a sleeve part, the measurement is taken from sleeve length. To get the wrist measurement, it has the formula that is also created by the tailor.
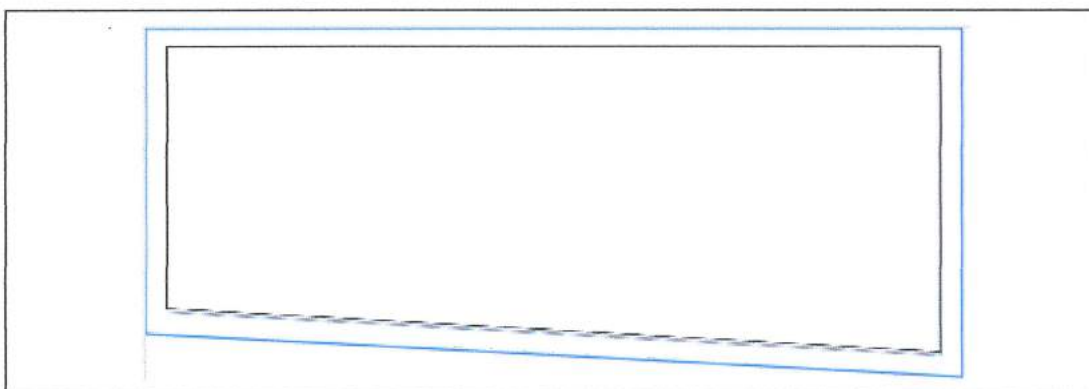

Figure 4.16: Coordinate for Sleeve Part

The figure above is shows that the figure of sleeve part using coordinate which is use to make the template cloth for this prototype. There are two lines of the template because it is needed for user to identify the actual size and the extra part of template. The blue line is the extra part and the black line is the actual size that is follow by the length of shirt and logic number that are made by professional tailor.

```php
<?php

session_start();

?>

<!DOCTYPE html><title>::Kekek::</title>

<html>

 <?php

            include ("Connectionphp.php");?>

     <?php

 $username = $_GET['username'];

 $result = mysql_query("SELECT * FROM user WHERE username='$username'");


 //start loop

 while($row = mysql_fetch_array($result))

 {

 ?>
```

```
<style type="text/css">

<!--

.style23 {font-size: 12}

.style38 {font-family: "Lucida Grande", Arial, Sans-serif; font-weight: bold;}

.style39 {font-size: 14px;

      color: #000000;

}

-->

</style>

<body>


<link href="style.css" rel="stylesheet" type="text/css" />

<link rel="stylesheet" href="printer.css" type="text/css" media="print" />


 <p><span class="style39"><span class="style38"><span class="style23">

  <?php @session_start(); ?>

Welcome</span></span><span class="style38"> : <?php echo
$_SESSION['username'];

$username= $_SESSION['username'];?></span></span></p>

<p>
```

```
<canvas id="myCanvas" width="1000" height="1000" style="border:1px solid
#d3d3d3;">

        your browser does not support the canvas tag </canvas>

  </p>



 <table width="146" border="0" align="center">

  <tr>

   <td width="42"><form name="form3" method="post" action="">

    <div class="printing" id="printing1">

  <label> <a href="Javascript:self.print()" /></label>

 <input type="button" name="print2" id="print2" value="Print" />

    </div>

   </form>

   </td>

   <td width="67"><form name="form1" method="post"
action="Leher.php?username=<?php echo $row['username']?>">

    <label>

    <input type="submit" name="Leher" id="Leher" value="Leher">

    </label>
```

```
    </form></td>

    <td width="45"><form name="form2" method="post"
action="viewpolar.php?username=<?php echo $row['username']?>">

    <label>

    <input type="submit" name="Back" id="Back" value="Back">

    </label>

    </form></td>

  </tr>

 </table>

<p class="style39"> </p>

<p class="style39"></p>

  <script type="text/javascript">


var c=document.getElementById("myCanvas");

var ctx=c.getContext("2d");


var x=0;

var y=0;

//var size1 = (<?php echo $row['shoulder_width'];?>)*50;

//var size2 = (<?php echo $row['shirt_length'];?>)*50;
```

```
ctx.strokeStyle="#0000CC";

ctx.lineWidth = 2;

ctx.beginPath();

ctx.moveTo(x,y);

ctx.lineTo(x+220,y);

ctx.lineTo(x+220,y+220);

ctx.lineTo(x,y+220);

ctx.closePath();

ctx.stroke();


var x1=25;

var y1=25;

ctx.strokeStyle="#000000";

ctx.beginPath();

ctx.moveTo(x1,y1);


ctx.lineTo(x1+170,y1+170);

ctx.lineTo(x1,y1+170);

ctx.closePath();
```

```
ctx.stroke();

ctx.beginPath();

ctx.moveTo(x1,y1);

ctx.lineTo(x1+170,y1+170);

ctx.closePath();

ctx.stroke();

</script>

 <?php


        }

        mysql_close();

            ?>

        </html>
```

Figure 4.17: Coordinate for Kekek Part

Figure above is code for the coordinate of the keke part. The start point of the point is 0,0. To start with the next point of x and y, the measurement is taken by formula that have make by tailor before. To make a kekek, there is need to have a logic measurement, so it will fix with the cloth. Usually the size of kekek is taken about 3 inch. Usually the shape of kekek is square. Kekek is using to put between the pesak and the sleeve length.
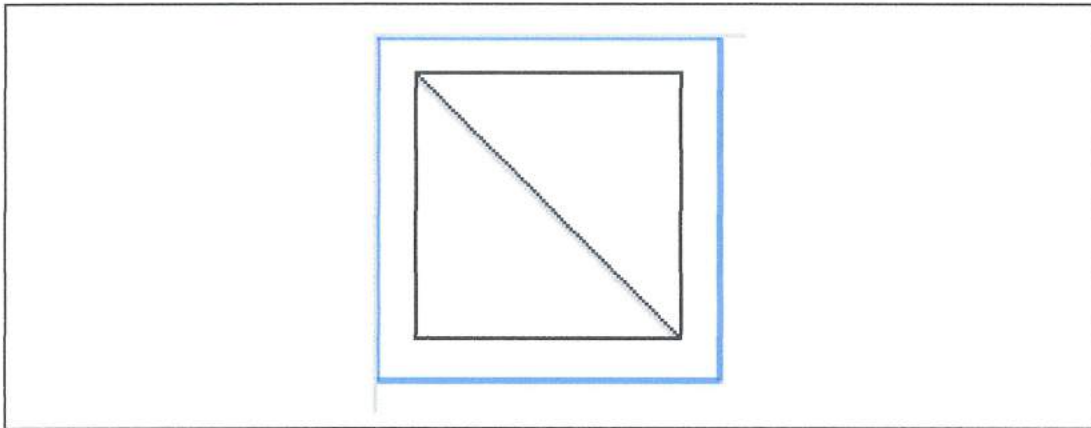
Figure 4.18: Coordinate for Kekek Part

The figure above is shows that the figure of kekek part using coordinate which is use to make the template cloth for this prototype. There are two lines of the template because it is needed for user to identify the actual size and the extra part of template. The blue line is the extra part and the black line is the actual size that is follow by the length of shirt and logic number that are made by professional tailor.

4.2 Interface Development

4.2.1 User

Figure 4.19: Home Page before Login

The figure above shows that the interface of home page which is for user. This page can be view before user login in the system. very options can be view. For the first options is about us and the contact number to contact us. The second options is about the measurement which is to choose the template and then insert the measurement. But if user did ot login, their data will not be added to the database. And the last option is a guide for the user.

Figure 4.20: Registration Page

The figure above shows that the interface of registration page which is for new user to use this system. They need to insert all the information that have in the form. This page can be view before user login in the system.
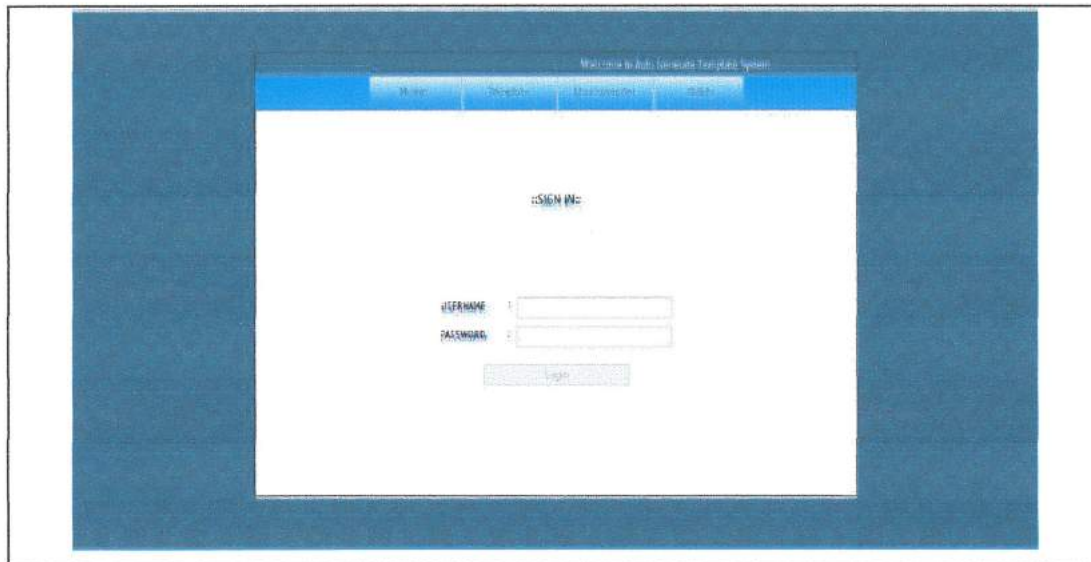
Figure 4.21: Sign In Form

The figure above shows that the interface of login form which is for user that are the member of this system. They need to insert username and password correctly to access into the system.

Figure 4.22: About Us For

The figure above shows that the interface of About Us and Contact Us which is for user to get know a detail about our websites and they can contact us if they got any problem that are related. This page can be view before user login in the system and after login into the system.
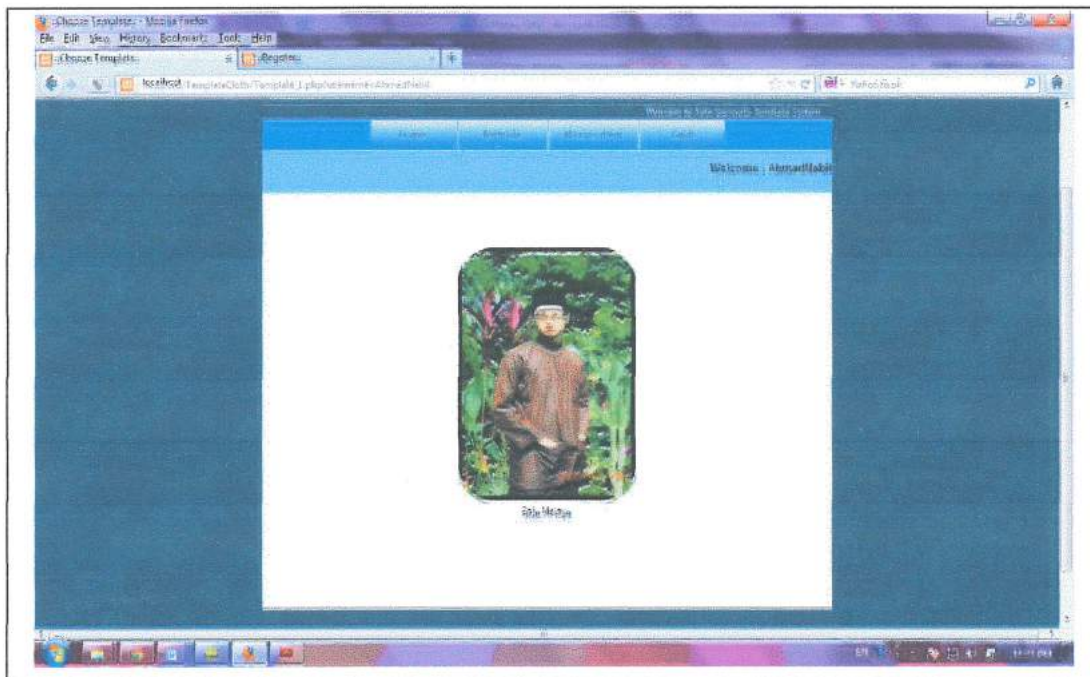
Figure 4.23: Type of Template Page

The figure above shows that the interface of Choose template. The type of cloth is Baju Melayu. This page can be view before user login in the system and after login into the system.

Figure 4.24: Measurement Form

The figure above shows that the interface of Body Measurement which is for user can view the guide to take a body measurement if they got any problem that are related to take a measurement of their body. They can insert the body measurement and stored in the database. They also can update their measurement of body.

Figure 4.25: Display User Information Page

The figure above shows that the interface of display the information of user profile that the user who is login to the system. They also can update their profile if there any changes they want to make.

4.2. 2   Admin
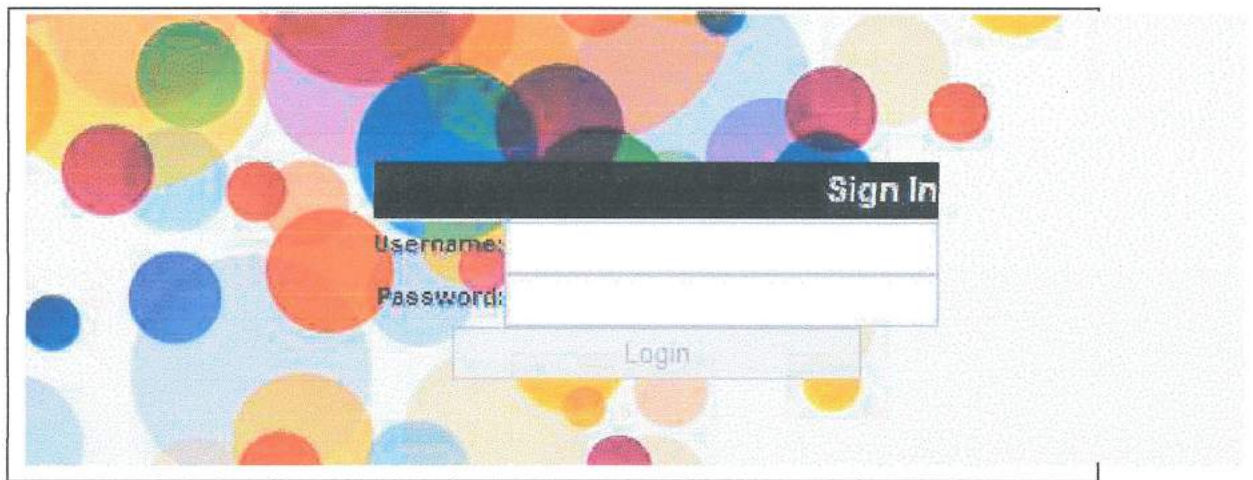
Figure 4.26: Admin Home Page

The figure above shows that the interface of login form which is for admin to login into this system. They need to insert username and password correctly to access into the system.

Figure 4.27: Admin Home Page

The figure above shows that the interface of home page which is for admin. This page can be view after login in the system. Admin can choose to view user details or measurement details. Both details is about user details including the measurement.
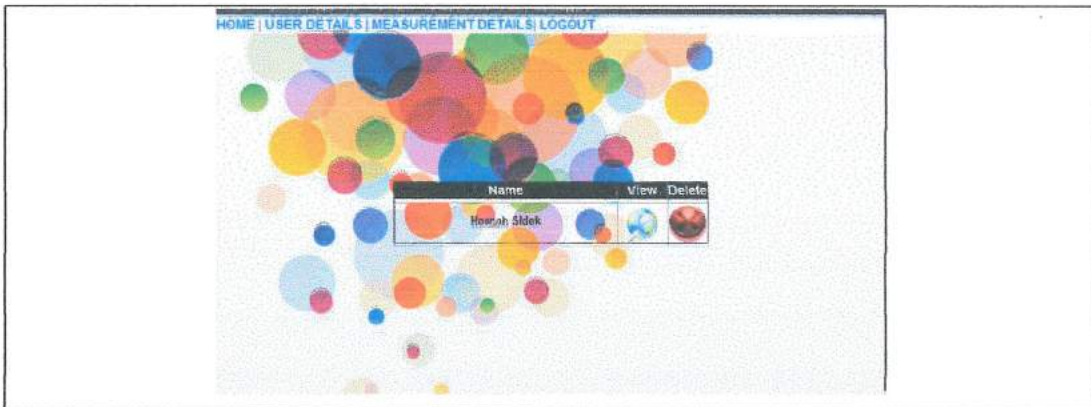
Figure 4.28: Display User Information in Admin Page

The figure above shows that the interface of display the information of user that the user who is register to the system and admin can view it. Admin also can delete the user who are not active in this system.

CHAPTER 5

RESULTS, DISCUSSION AND CONCLUSION

5.0   Introduction

In this chapter, we will discuss about the result and to discuss about this system. We also to discuss about the achievement that get from the project objectives based on the result of the system. The details for the outcome, assumption and further research about this system also will be discussed in this chapter.

5.1   Expected Result

The expected results from this project are described as below:

i.   The system should be able to save the result of the body measurement.

ii.   The system should be able to generate template of cloth following the body measurement of the user.

iii.   The system should be able to print out the template that have been generate following the measurement that has been insert.

5.1.1   Result of the System

This system is developed to solve the problem for everyone which is person who do not know how to sew and tailor that needs to draw the template of cloth in manual way which is it is takes time to complete it in a short time and.

So, the purpose of this system is develop is to make the function for them to automated generate the template of cloth by only inserting the measurement first in this system. Then, it easy for the them and the time can be reduce since only the measurement that needs to key in and all of the pieces of the template of cloth will be auto generate.

5.1.2 Generate Result

In this system, it is should be able to generate the result based on what have we decide to achieve it. This system should be able to auto generate the template by measurement that have been key in and the template that have decide by their user.

Plus, when the template have been generate, they can print out the template to start measure the template at real cloth.

5.1.3 User Acceptance Testing

User acceptance testing is often the final step before rolling out the application. Usually the end users who will be using the applications test the application before 'accepting' the application [11]. This type of testing gives the end users the confidence that the application being delivered to them meets their requirements. Once the system is fulfilling their requirements, it is can say that they agree to use it.

5.1.4 Validating Testing

Verification and validation testing are two important tests, which are carried out on software, before it has been handed over to the customer [12]. In the validating testing, it is to see whether this system is useful and easy to use for the user especially for the tailor. With an easy system, it will be easy for them to manage it while doing their work. From that, we will know that if this system has fulfilled the requirement that they want. With the acceptance of this system by user, it is the end of validating testing.

5.1.5 Advantage of the System

Below is the advantage of this system:

i.   Time consuming. This system helps for the tailor to save their time to draw the template from the generated by computer to the cloth.

ii. The quality of the measurement. The measurement will be accurate by the templates that have been generated.

5.2 Recommendation

As the future recommendation this prototype, it is suggest adding more type of template cloth like Baju Kemeja, T-shirt for long sleeve and short sleeve and etc. By adding more templates, it can help users to make a lot of style cloth.

We also recommend this prototype to use for tailor to help them in making the polar that are automatically generated.

Plus, this prototype can be upgraded by making a simulation person to check whether the patent is suitable for the typed of person like fat and slim. Besides, the

prototype can detect the patent that are most suitable for them and decide what is the most type of cloth is suitable for them to wear.

5.3 Conclusion

We can conclude that, the objective that to develop this system is can be achieved. With the result that we have expected, it may become a useful system to the people to make them reduce their time for making and measure the template one by one.

Plus, the measurement surely will be accurate because the calculation it made by computer, and the duty of user is just to draw it back again on the cloth. It is making their work easy by using this system which is all the pieces of the template will be generating by computer.

Auto Generate Template Cloth for Men is a web-based prototype which is proposed to help users on prepares the every part of template cloth for men and to auto generates the template cloth to measure at cloth. In order to prepare the requirement for the Auto Generate Cloth system, many researches has been done based on existing case study, existing system and techniques which is suitable for developing the system.

REFERENCES

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[11]   Exforsys Inc. (27th Jan 2006). What is User Acceptance Testing?.Available: http://www.exforsys.com/tutorials/testing/what-is-user-acceptance-testing.html.   Last accessed 19th dec 2011.

[12]   Bhakti   Satalkar.   (9th   June   2010). Validation   Testing. Available: http://www.buzzle.com/articles/validation-testing.html. Last accessed 19th dec 2011.

APPENDIX A

GANTT CHART

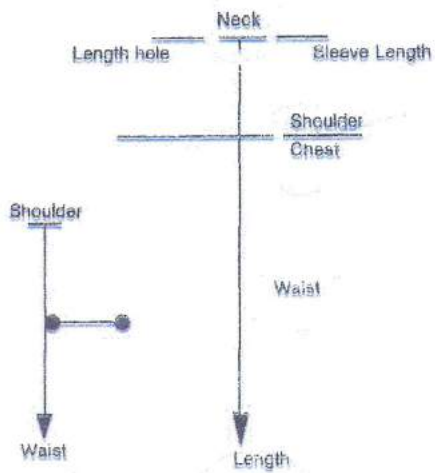|	Task Name	Duration	S	Feb '11	Oct '11	Nov '11	Dec '11	Jan '10	Feb '10	Mar '10	Apr '10	May '10	Jun '10
1	Discuss chapter1	5 days	Mor										
2	Submit chapter 1	1 day	Mor										
3	Discuss chapter 2	4 days	Mor										
4	Do Storyboard	3 days	Mon										
5	Submit Storyboard	1 day	Fr										
6	Do Prototype of System	5 days?	Fr										
7	Show prototype to Sv	1 day?	Thu										
8	Modify prototype	5 days?	Fri										
9	Submit chapter 2	1 day?	Fr										
10	Discuss chapter 3	5 days	Mon										
11	Submit chapter 3	1 day	Mon										
12	Discuss chapter 4 & 5	4 days	Tue										
13	Submit chapter 4 & 5	1 day	Mor										
14	Discuss Project Overview	3 days	Wed										
15	Submit Project Overview	1 day	Mc										
16	Develop a prototype	67 days	Thu										
17	Discuss chapter 4 and 5	5 days	Tr										
18	Submit Chapter 4 and 5	1 day?	Mor										
19	Present prototype to Sv	5 days	Mor										
20	Correction of chapter 4 and 5	5 days	Mor										
21	Correction of Prototype	10 days	Mor										
22	Complete a full documentation	3 days	Mor										
23													
24													
25													
26													
27													
28													
29													
30		0.13 days?	Fr										

APPENDIX B

KIM GARMENT TEMPLATE

104

KIM GARMENT

No. 9, Jalan Industri Semambu 9/5, Kawasan Perindustrian Semambu,
25350 Kuantan, Pahang Darul Makmur.
Tel : 09 - 5679519, 5670520 Fax : 09 - 5670521
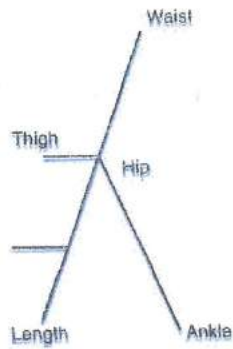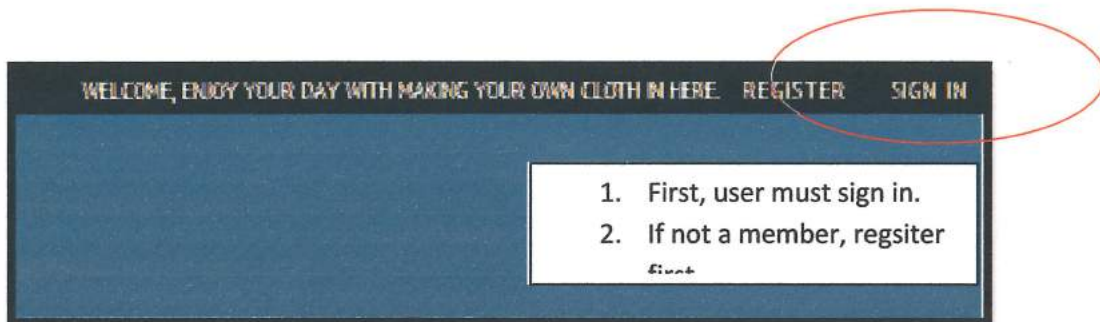Jenny : 019 - 986 4061, Joyce 016 - 981 3789

NAME : ....

COMPANY : ....

Neck

Length hole   Sleeve Length   Front :

Shoulder   Back :
Chest

Shoulder

Waist

Waist

Length

REMARKS :

Waist

Thigh

Hip

Length   Ankle

APPENDIX C

USER MANUAL

USER MANUAL

1. First, user must sign in.
2. If not a member, regsiter first.

1. Insert all the information in the field.
2. Then, hit register button to complete the registration.
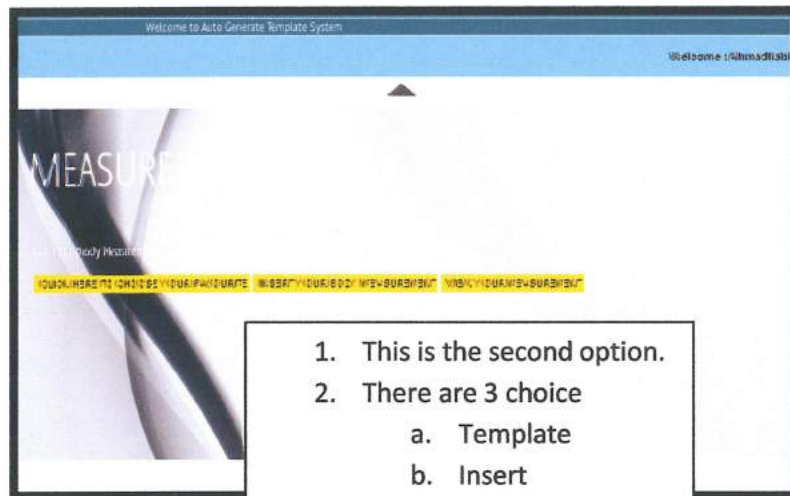
1. Insert correct username and your password.
2. Then, click login button.

1. This is the Home Page.
2. Click the first option to know about us.
3. Click the second option to know about measurement.
4. Click the third option to

1. This is the first option
2. It is the information about our prototype.

108

1. This is the second option.
2. There are 3 choice
   a. Template
   b. Insert measurement
   c. View measurement

:::YOUR BODY MEASUREMENT:::

NAME	: Ahmad Nabil Ismail
BIRTH DATE	: 18 Jun 1989
NECK	: 1/2
SHOULDER WIDTH	: 36
SLEEVE LENGTH SL	: 60.5
SLEEVE LENGTH	: 57.5
ARM	: 57
SLEEVE LENGTH BU	: 33.5
PANTS	: 52

Update   View Pola

:::View Pola:::

[A]	Bahu
[B]	Leher
[C]	Lengan
[D]	Pesak
[E]	Badek
[F]	Kocek Baroh
[G]	Seluar
[H]	Tulang seluar

Update

Welcome : AhmadNabil