CHAPTER 3

METHODOLOGY

This chapter discusses about the implementing of RAD in developing Road Premix Management System for Seri Barat Mixed Sdn Bhd. Managing the system process manually is a tedious task, thus a Web-based management system to manage the system is proposed to be developed using Rapid Application Development model. There are three sections involved in this chapter. The first section is introduced about introduction of RAD methodology and the reasons of selecting the methodology. The next section is discusses about implementation of the methodology. The final section elaborates on the details of software and hardware to be applied in the system.

3.1 Requirements Planning

There are three tasks in this phase. The following are the tasks in Requirements Planning:

i. Research Current Situations

There are three current systems under investigations of advantages and disadvantages. The systems are SAP ERP, and Oracle ERP which involves complex processes, however provides a more efficient of working environment. ERP is a short term for Enterprise Resource Planning. It is business management software which is suite of integrated applications that store and manage information from sales, and production. The proposed system, RPMS, will be develop as an integrated applications of sales, and production for the operations of finished good road premix.

ii. Define Requirements

The targeted users are Sales supervisor, and Production supervisor that responsible for maintaining (insert, update and delete) the information of sales, and for road premix production respectively in the Seri Barat Mixed Sdn Bhd, and its respective branches Kuari Dinar Sdn Bhd at Gua Musang, Damai Kuari Sdn Bhd at
Gua Musang, and Dimensi Timal Sdn Bhd at Tanah Merah. Currently, there are only 4 premix plants in these companies, and there will be a new premix plant in the future. Only manager is allow to gain access for viewing a full report of all branches and its branch. The reports composed sales report, and production report from daily to yearly or according to the date range specified.

iii. Finalize Requirements
a. Administrator: Manager and Branch Manager

Correctness
- The system will produce two types of automated reports; Sales report, and Production reports from all branches. The report is in the format of tabular form and graphical chart and is produced according to the selection; date range, daily, monthly, and yearly.
- The required accuracy of the reports containing 100%.
- The completeness of the sales, and production is 100%.
- The documentation of the reports standards and guidelines comply by the client is provided.

Integrity
- Only Administrator has the privileges access for the reporting from all branches through the internet. The software requirements include the possibility of viewing, and copying but no changes could be made.

Usability
- At least 4 records of data entering per day.
- Training a new supervisor will take no more than two days (16 training hours), and at least five records of data entering per day.
3.1.1 Software requirement

<table>
<thead>
<tr>
<th>Software Interface</th>
<th>Software Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window 7 Home Premium</td>
<td>A personal computer operating system</td>
</tr>
<tr>
<td>Sublime Text 2.0</td>
<td>A text editor for code, markup and prose</td>
</tr>
<tr>
<td>Adobe Photoshop CS6</td>
<td>A graphic editing program</td>
</tr>
<tr>
<td>phpMyAdmin and Apache</td>
<td>A Web server application</td>
</tr>
<tr>
<td>Rational Software Architect</td>
<td>An modeling and development program</td>
</tr>
<tr>
<td>Microsoft Office Word 2013</td>
<td>A word processor</td>
</tr>
<tr>
<td>Microsoft PowerPoint 2013</td>
<td>A slide show presentation program</td>
</tr>
</tbody>
</table>

3.1.2 Hardware requirement

- **ASUS U31SD**
  - **Support:**
    - Windows 7 Ultimate
    - Windows 7 Professional
    - Windows 7 Home Premium
    - Windows 7 Home Basic
  - **Chipset:**
    - Intel® HM65 Express Chipset
  - **Memory:**
    - DDR3 1333 MHz SDRAM, 2 x SO-DIMM socket for expansion up to 8 GB
  - **Storage:**
    - 640GB 5400RPM

- **Printer CANON IP2770**
  - **Type:**
    - Printer only

- **Thumb Drive Kingston**
  - **Storage size:**
    - 16GB