## **CHAPTER 5**

## **SYSTEM IMPLEMENTATION**

## 5.1 System Specification

The system used in the implementation is specified in the following section, which will show the minimum requirement for the software and hardware specification needed. The specification includes the software and the hardware specification from the client and the server side.

## 5.1.1 Hardware Specification

#### 5.1.1.1 Garuda Indonesia Server Side

Computer and processor

PC with a 400-MHz processor; support for up to four processors on one server

Memory 256 MB

Hard disk 200 GB

Drive CD-ROM and DVD-ROM drive

Display 128 MB VGA Card

### 5.1.1.2 Local host Side

Computer and processor

Pentium M 740 processor, 1.73 MHZ or faster processor

Memory

768 MB of RAM

Hard disk 80 GB

Drive DVD-Dual drive

Display 128 MB VGA Card

### 5.1.1.3 Client Side

Computer and processor

Pentium III 700 MHZ or faster processor

Memory

128 MB of RAM required; 256 MB or more recommended

Hard disk 5 GB

Drive CD-ROM or DVD-ROM drive

Display 64 MB VGA Card

# **5.1.2** Software Specification

### 5.1.2.1 Garuda Indonesia Server Side

Microsoft® Windows Server<sup>TM</sup> Operating System

Microsoft® Internet Explorer<sup>TM</sup> version 6.0 (Java script-enabled)

XAMPP version 1.4.14

- Apache server version 2.0
- phpMyAdmin 2.6.2

### 5.1.2.2 Local Host Side

Microsoft® Windows XPTM Operating System

XAMPP version 1.4.14

- Apache server version 2.0
- phpMyAdmin 2.6.2

Microsoft® Internet Explorer<sup>TM</sup> version 6.0

(Java script-enabled and flash player enabled)

Mozilla® Firefox<sup>TM</sup> 2.0.0.11

(Java script-enabled and flash player enabled)

#### **5.1.2.3** Client Side

Microsoft® Internet Explorer™ version 6.0

(Java script-enabled and flash player enabled)

Mozilla® Firefox<sup>TM</sup> 2.0.0.11

(Java script-enabled and flash player enabled)

## 5.2 Operational Procedures and Implementation Strategy

To implement the proposed system into the real condition, which mean have to be uploaded into the Garuda Indonesia's Server, the author have to pass several steps. After the system already done developed and pass the testing section which will be explained more below, the author have to have a presentation section with the key person in Garuda Indonesia especially in Garuda Indonesia Training Center because this project will affect directly into the company's image. Moreover, after the presentation done and the author have got the authorization to upload all the material of the proposed system into the Garuda Indonesia's server, then next step will be to arrange some time with the IT people that responsible for the server activity in Garuda Indonesia. After that, the proposed system ready to be implemented and be a part as one of the Garuda Indonesia's business process.

The installation approach that will be used by the author is the direct installation or immediate cutover method, where the new system is installed and quickly made operational, and any overlapping systems are then turned off. The reason why the author used this approach is because in the real life Garuda Indonesia uses this procedure, that's why the new system has to run successfully and pass the testing phase before get into this installation procedure to minimize any flaw that may occur.

#### 5.3 Test Plan

The test plan is required to make sure that the system is run as what it is expected. The author have done several types of test, below is the list of test to be conducted:

### **5.3.1** Content Proofing

This testing makes sure that the content and information contained in the website system is as the same as what it is intended. After the author doing this testing there is no error found, which mean the proposed system passed this Content Proofing.

### **5.3.2** Visual Acceptance Testing

This testing examine the web layout and the website interface design, which to make sure that the website show as the way it is based on the concept designed. The proposed system also passed this Visual Acceptance Testing, since the website interface design is run as the way it is based in the concept designed.

## 5.3.3 System and Browser Compatibility Testing

At this testing, the author testing the website system with 2 most used browser to run the website system which are:

- Microsoft® Internet Explorer™ version 6.0
  (Java script-enabled and flash player enabled)
- Mozilla® Firefox<sup>TM</sup> 2.0.0.11
  (Java script-enabled and flash player enabled)

There are slightly different in the user interface design results between Microsoft® Internet Explorer<sup>TM</sup> version 6.0 and Mozilla® Firefox<sup>TM</sup> 2.0.0.11, which is shown below in the Figure 5.1 and Figure 5.2 (Highlighted with the yellow box). Basically, it is not a big deal to the website system. So, the author stated that the proposed system also passed this System and Browser Compatibility Testing.



Figure 5 1 User Interface in Mozilla® Firefox<sup>TM</sup>



Figure 5 2 User Interface in Microsoft® Internet Explorer™

## 5.3.4 Web Usability Testing and Open Discussion Testing

This testing make sure the user understand and have a great experience in the website, this testing is done by doing the presentation to several key people in Garuda Indonesia Training Center, whom are Mr.Wahyu, Mr.Dadan, Mrs.Ratri, and by getting into the class and constructed short presentation and question answer session where the audiences are the flight attendants who were running their training program in GITC. At the end of this testing most all of the user understand and have a great experience in the new website system.

## 5.3.5 Web Functionality Testing

At this testing part, the author will put emphasize on the functionality of the user interface, such as website navigation link, hyperlinks, flash banner, form which have to make sure that it works correctly and lead to the right web page. The proposed system has passed this testing, since all the website navigation link, hyperlinks, flash banner, and forms are active and can run as the way it is expected.

## **5.3.6** Module Testing

Module testing also has been run, and there is no problem with the proposed system, since all the results are worked as the way it's expected.