

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

The internet is one of the most necessary things in this era; the internet has revolutionized the computer and communication like never before. The internet has worldwide broadcasting capability, mechanism for information propagation, and medium for collaboration and interaction between individuals and technology without limits. Since the invention of the internet, it could help people to work and communicate faster and more efficient. It could be used for trading, e-commerce; business enquiries between customer or client and merchant to communicate each other at the same time; by using the internet they could save a lot of time. With the growing of the internet, a lot of people grow their business easier than it used to be. One of the most popular usages of the internet is the website. Web and mobile applications have always been helping people to maximize work performance and reduce human effort by their different reliability. With the existence of the website, it has been recognized that it can improve a company management and service efficiency.

There are also a lot of dormant potential of the website that can be explored, such as user-friendliness, content information, and news. The website can also help the company to achieve higher and better target. E-commerce can also be applied to web-based or mobile based. With the development of current technologies, a lot of people are using their smartphones or laptops to do a lot of things in their daily life. As an example, ordering food, bookings ticket, transportation needs, communication, educational systems, traveling needs, business needs, and logistics. The point is in our era these technologies are extremely useful and beneficial for daily basis, that's why developing an E-commerce is one of the core function that every instance or every company that they should have.

With the developments of the current of technology, every aspect of daily life needs to cope with the ongoing trends. As an example, every business or company needs to have an ICT division, such as a company need to provide their product requirements and capability for their client or customer. That's why Mecmesin UK are developing their system towards current technology.

Mecmesin UK is a company that provides force, torque, and materials equipment, for industrial users. Mecmesin is the one who builds industrial needs, such as the durability and the grip of a bottle cap. Mecmesin is also offered a device that can measure the wear, tear resistant, and elasticity of a product. They also provide top load and crush resistant testing. Top-load or column-crush testing defines methods for ensuring that products consistently meet these quality requirements for the axial load. Because plastic bottles and containers, cans, glass jars, or cardboard cartons, will all behave differently according to contents, materials, and structural design. That's why they need a website for their customer in Indonesia so they can find out what are the current popular markets in Indonesia.

This E-commerce that we are about to develop will help the communication and enquiries between Mecmesin and its Indonesian Distributor which is PT. QLab Kinarya Sentosa and customer or client easier. Because before the website exists, for Indonesian customer who wants to buy Mecmesin products they have to contact the Mecmesin UK first and then later on the Mecmesin UK will contact PT QLab about the device or products they want to buy. After that in order to complete the payment, they have to go to the buyer's company to deliver the product along with the invoice.

With the existence of this website, more customer will know that PT QLab is the only distributor for Mecmesin in Indonesia, with that they can contact QLab through the website by filling up the support form or enquiries form or demo support, depends on what they need and their necessary. Then, QLab will take care of everything related to the products or devices, so customer only need to wait and pay the items. They don't have to contact Mecmesin anymore, and if they already knew that PT QLab is Mecmesin distributor, they don't have to call anymore if they want to buy the products or need some demonstration. All they have to do just go to the website and fill the enquiries. So they can minimize the phone expenses.

## **1.2 Problem Definition**

First of all, Mecmesin wants to build the website, Mecmesin headquarters is in the UK. Mecmesin have distributors in Asia such as in Korea, China, Vietnam, Singapore, Malaysia, and Indonesia. But, Mecmesin only have a website for the UK and its region in Europe and Korea.

That's the reason Mecmesin ask PT QLab Kinarya Sentosa, an only distributor in Indonesia, to build a website for Mecmesin. Because there are a lot of

company in Indonesia that needs Mecmesin devices for application test of their product, especially for packaging, beverage, cosmetic, pharmaceutical and automotive industries. So the web application will also be used for promoting Mecmesin's product.

Another reason why Mecmesin ask PT QLab Kinarya Sentosa to build a website because if a company from Indonesia want to order Mecmesin product, the company don't have to order it from the UK which company normally do, which when company do this, that company will have to deal with customer tax and logistic expenses by themselves, and if company need demonstration of the product it will be complicated because Mecmesin representative will have to come to Indonesia as well. As a distributor for Mecmesin, PT. QLab Kinarya Sentosa will provide all the services based on customer enquiries or request through this website.

### **1.3 Scope**

Our product will be focused on:

1. Developing the official website of Mecmesin under PT QLab Kinarya Sentosa.
2. The website will show Mecmesin products and its specifications.
3. Creating the form to order the products, order history, and order tracking
4. Payment Report for both customer and QLab.

### **1.4 Objective and Benefits**

The results that developer hope to achieve from this study are:

- a. Create a user-friendly website to attract new customer and promote QLab-Mecmesin products online.
- b. Give more detail product overview.
- c. Fulfill customer needs to track their order.
- d. To create a system to simplified payment system.

The results of benefits from our study are:

- A. Offering product datasheets.
- B. Attract New Customers with Search Engine Visibility.
- C. Customer able to locate the product which the customer ordered with trace and tracking.
- D. Offer more details for ordering through enquiry form, for new customer or company.

### **1.5 Methodology**

In this project, developer use Waterfall methodology. Waterfall model was proposed by Royce in 1970 which is a linear sequential software development life cycle (SDLC) model. This model is named “Waterfall” because its diagrammatic representation looks like a cascade (flow) of Waterfall. This is also known as classical lifecycle model. It includes a system, requirements, initial and detailed design, implementation, testing, operations, and maintenance. The project is divided into sequential phases, with some overlap and splash back acceptable between phases. Emphasis is on planning, time schedules, target dates, budgets and implementation of an entire system at one time. Tight control is maintained over the life of the project via extensive written documentation, formal reviews, and approval/signoff by the user and information technology management occurring at the end of most phases before beginning the next phase.

### **1.6 Systematical of Writing**

#### **CHAPTER 1: INTRODUCTION**

Consist of background, problem definition, scope, objective and benefit, methodology.

#### **CHAPTER 2: LITERATURE REVIEW**

Consist of what methodology that developer use are using when the developer develop this web application and all the literature review that developer use.

**CHAPTER 3: RESEARCH METHODOLOGY**

Consist the explanation of how developer implement our research methodology to our web application, and its UML.

**CHAPTER 4: RESULT AND STUDY**

Consist of the mockup of our web application and its procedure of how to use our web application and user evaluation.

**CHAPTER 5: CONCLUSION AND SUGGESTION**

Consist of the conclusion of our thesis and the suggestion of what can be improve for our application.

