

# CHAPTER I

## INTRODUCTION

### 1.1. BACKGROUND

The restaurant is a business that is in great demand by entrepreneurs around the world because in this business the market is very large, all people from young people to the elderly are consumers in this business, so many entrepreneurs are competing to be the best in this field, there are many ways used by entrepreneurs to satisfy the hearts of their customers. Customer satisfaction is a reflection of one's feelings whether satisfaction or disappointment resulting from a comparison between a product or service performance perception with expectations. If the product's performance expectations do not meet expectations, the customer will feel dissatisfied. If the product performance exceeds expectations, then the customer will feel very satisfied [1].

Ronalee Restaurant was established in 2015 because of its young age, the founder of Ronalee Restaurant, Mr. Budi Priyanto, wants to keep abreast of the times and digitize menu reservations in his restaurant as a way to speed up the menu ordering process as a strategy to satisfy his customers.

Ronalee restaurant itself already has an ordering application that uses php, but in this application has a problem, that is, when the data is changed on the waiter system, the kitchen system must refresh so that the system is updated or can be tricked with the system will refresh itself every determined second, but this system is prone to loss of data when the order is changed. So the author will change the back-end program with Node.js then use the Socket.IO library so that the data change process becomes real time so that when the data is stored from the waiter program that is in the kitchen will be updated.

Based on this background the author will conduct research entitled " Node.js Implementation on menu Reservaton system at RonaleeTesto". In addition to changing the back-end program the writer will also add a library Socket.IO so that the process of changing data into real time so that the system becomes more efficient.

## 1.2. Problem Formulation

Based on the background described above, it can be seen that the research subjects are:

"How do you create a menu ordering system in ronalee restaurant by using Node.js and adding Socket.IO to the system?"

## 1.3. Problem Scope

Limitation Problems in this study include:

1. This application is web based.
2. Users are employees of Ronalee restaurant only, not customers.
3. Software used includes: WebStorm, Node.js, MySQL, Socket.IO, HTML, CSS, Xampp, Sequel Pro.
4. This application does not change the business processes that exist on the previous system.

## 1.4. Purpose of The Study

Based on the background studied, the intent and purpose of making this thesis is "to create a menu ordering system in ronalee restaurant by using Node.js and adding Socket.IO to the system".

## 1.5. Research Benefits

1. For Author

By making this thesis, it means that the writer is able to apply the knowledge that has been learned at AMIKOM Yogyakarta University, especially in the field of Web programming.

2. For Users

It is expected to be able to simplify the process of ordering a menu at Ronalee restaurant.

## 1.6. Research Methods

The research method is a scientific way of finding and obtaining data. As well as having links with procedures for conducting research and technical research. The order of the research methods in this thesis is.

### 1.6.1. Method of Collecting Data

Metode pengumpulan data adalah teknik atau cara yang dilakukan oleh peneliti untuk mengumpulkan data. Pengumpulan data dilakukan untuk memperoleh informasi yang dibutuhkan untuk melakukan sebuah penelitian. Metode pengumpulan data yang digunakan dalam skripsi ini adalah.

#### 1. Interview Method

Data collection method is a technique or method used by researchers to collect data. Data collection is carried out to obtain the information needed to conduct a study. Data collection methods used in this thesis are.

#### 2. Document Study

is a method of collecting data that is not addressed directly to the subject of research. Document study is a type of data collection that examines various kinds of documents that are useful for analysis material.

#### 3. Observation Method

It is a method of collecting data by observing and recording with direct observation of problems that occur at Ronalee Resto.

### 1.6.2 Method of Analysis

The method of analysis is a way of understanding and specifying in detail what must be done by the system. The analysis in question is:

#### 1. SWOT Analysis (Strengths, Weakness, Opportunities, and Threats).

It is a stage of analysis used to assess the strengths and weaknesses of the company's resources and external opportunities and challenges faced.

#### 2. System Requirements Analysis

It is an analysis phase that consists of functional needs, namely the type of needs that contain the processes that will be carried out by the system and non-functional requirements, namely the type of needs that

contain the behavioral properties owned by the system such as operational, performance, security, politics and culture.

### 3. System Feasibility Analysis

It is a stage of analysis used to justify whether system requirements are made feasible for the system to continue or not. The types of system feasibility are technical, operational, economic and legal feasibility.

#### 1.6.3. Design Method

The design method used is the UML (Unified Modeling Language) model with several symbols in it, including:

##### 1. Use Case Diagram

Techniques for recording the functional requirements of a system.

##### 2. Activity Diagram

Techniques to describe procedural logic, business processes, and work paths.

##### 3. Sequence Diagram

Two-dimensional graphics where objects are shown in horizontal dimensions, while lifelines are shown in vertical dimensions.

##### 4. Class Diagram

The set of similar objects.

#### 1.6.4. Development Method

The development method used in making this system is to use the prototyping method, which is a method in developing a system that uses an approach to create a program quickly and gradually so that it can be immediately evaluated by the user. The stages of prototyping are gathering needs, building prototyping, evaluating prototyping, coding the system, testing the system, evaluating the system and using the system.

#### 1.6.5. Testing Method

At this stage the testing process is done whether the system is running according to the characteristics of the desired system and meets the needs. In this study using black box testing and white box testing.

## 1.7. Writing System

To facilitate the preparation of writing and reading the writer provides a systematic based on sequential chapters based on the main problems, namely as follows:

### **CHAPTER I BACKGROUND**

This chapter consists of problem background, problem formulation, problem boundary, research objectives, research benefits, research methods, and systematic research report writing.

### **CHAPTER II THEORY BASIS**

This chapter discusses the literature review, the basics of theory, the analytical methods used, and the steps of system development.

### **CHAPTER III ANALYSIS AND DESIGN**

This chapter discusses the system design that will be made including an overview, analysis of problems with the system, needs analysis, system design analysis and user interface design.

### **CHAPTER IV IMPLEMENTATION AND DESIGN**

This chapter discusses each stage in making a system starting from system design to program implementation.

### **CHAPTER V CONCLUDE**

This chapter contains conclusions from all the results of the stages that have been passed during the study as well as suggestions related to writing this thesis so that it can be used as material for consideration for future application system development in the future.

### **BIBLIOGRAPHY**

Contains all reading sources used in this study.