



**HO CHI MINH UNIVERSITY OF TECHNOLOGY**  
**FACULTY OF COMPUTER SCIENCE AND ENGINEERING**

# **Software Engineering**

## **Assignment 3**

# **Task 3**

**Advisor: Quản Thành Thơ**

**Member:**

- **Võ Trần Minh Đạt (1913086)**
- **Huỳnh Kim Hưng (1952745)**
- **Trần Đức Nam (1952861)**
- **Võ Phạm Hoài Nam (1952863)**
- **Nguyễn Quý Hải (2052974)**

# Table of Contents

<b>Table of Figures .....</b>	<b>1</b>
<b>Table of Contributions .....</b>	<b>1</b>
<b>Task 3.1.....</b>	<b>2</b>
1. What is MVC pattern .....	2
2. MVC components.....	2
2.1. Model.....	2
2.2. View .....	2
2.3. Controller .....	2
<b>Task 3.2.....</b>	<b>4</b>
.....	4

## Table of Figures

<i>Figure 1.</i> MVC Model of Dishy .....	3
<i>Figure 2.</i> Implementation Diagram of Dishy .....	4

## Table of Contributions

Name	Contributions
Võ Phạm Hoài Nam	Draw the Implementaion Diagram (Figure 2)
Trần Đức Nam	Draw the Implementaion Diagram (Figure 2)
Huỳnh Kim Hưng	Draw the MVC Diagram (Figure 1)
Võ Trần Minh Đạt	Draw the MVC Diagram (Figure 1)
Nguyễn Quý Hải	MVC Diagram description.

## Task 3.1.

Now we have some diagrams of the system, but we need an architectural design that can:

- Convert QR codes into HTTP requests.
- Request routing & response appropriate view.
- The system must have authorization features.
- Allow users to order food as long as their device has an Internet connection.

=> We choose an MVC pattern to design the system.

### 1. What is MVC pattern

The Model-View-Controller (MVC) is an architectural pattern that separates an application into three main logical components: the model, the view, and the controller. Each of these components are built to handle specific development aspects of an application. MVC is one of the most frequently used industry-standard web development frameworks to create scalable and extensible projects.

### 2. MVC components

#### 2.1. Model

The Model component corresponds to all the data-related logic that the user works with. This can represent either the data that is being transferred between the View and Controller components or any other business logic-related data.

In our system, an Order object will retrieve the Order information from the database and update it based on the Customer's order request.

#### 2.2. View

The View component is used for all the UI logic of the application.

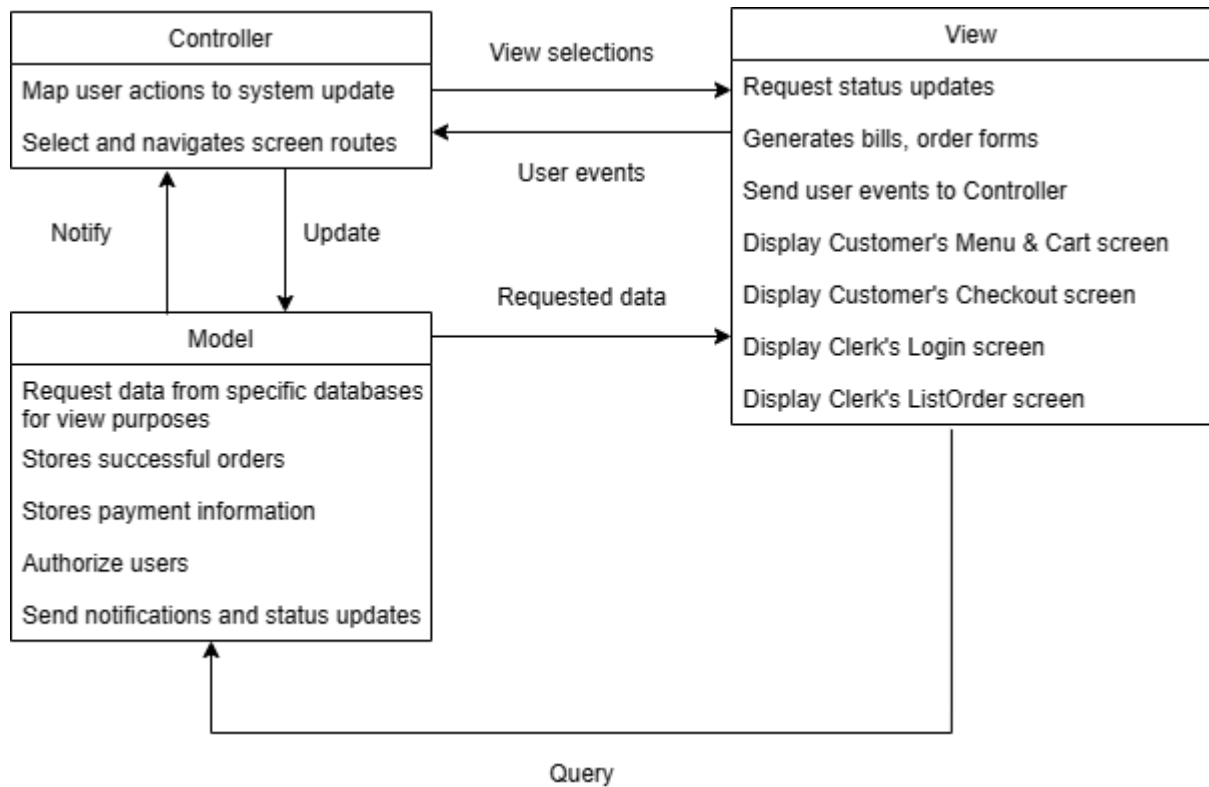
In our system, the Order view will include the menu UI components, which include all items that are available in the restaurant at that time, cart components, include cart items added by the user.

#### 2.3. Controller

Controllers act as an interface between Model and View components to process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output.

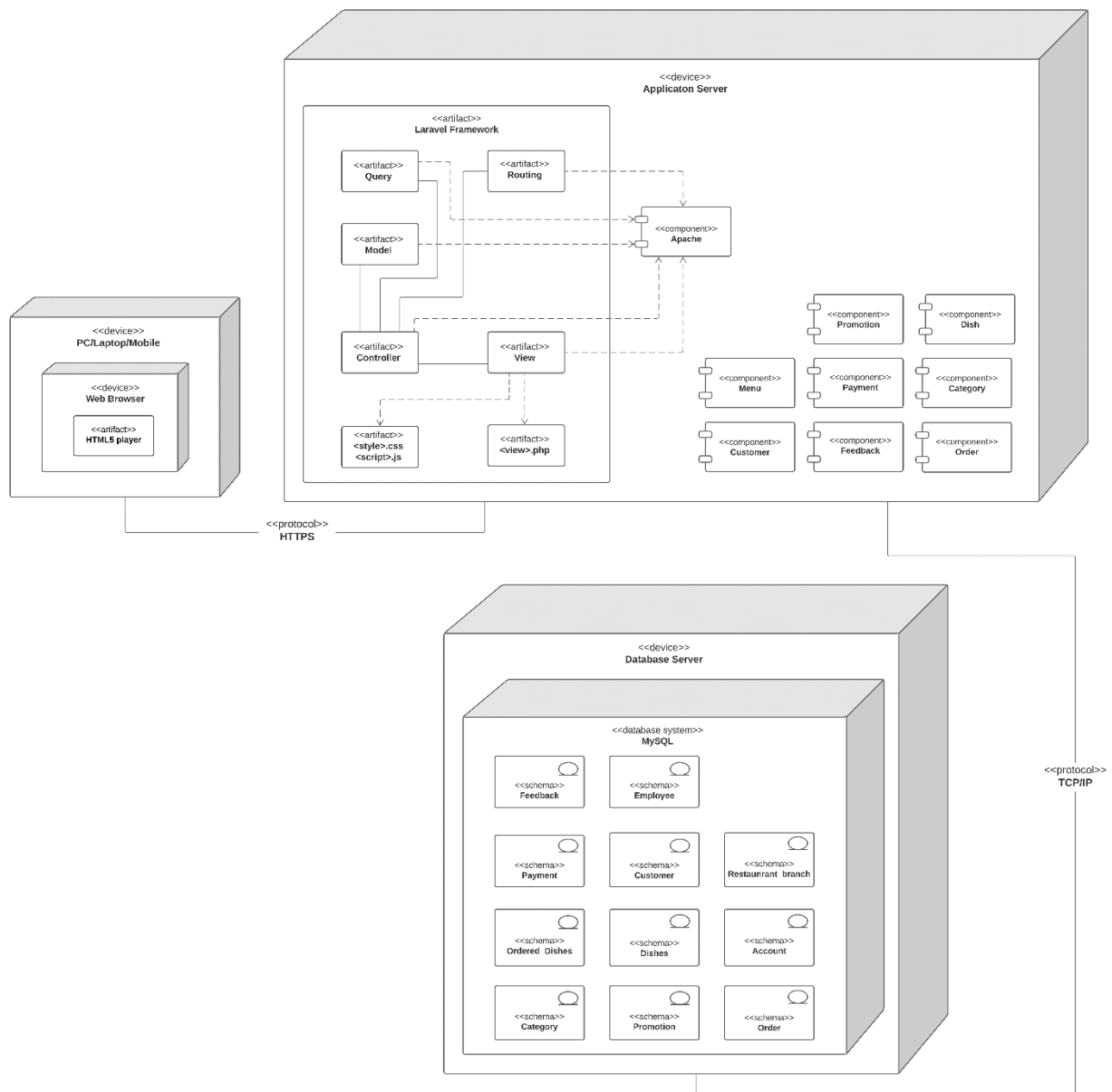
In our system, the Customer controller will handle the request order from Customer, check whether the order was successful, and return the message to both Customer

and Clerks. If the order was successful, the Order controller will call the record transaction model to update the transaction.



**Figure 1.** MVC Model of Dishy

## Task 3.2.



**Figure 2.** Implementation Diagram of Dishy