

# Analysis (Cont...)



## System Requirements

### Functional Requirement

Function	Description
<b>Inventory Management Module</b>	This module allows workers or employee to record the inventory using a scanner, update the product details and keep track of the product that needs to be replenished.
<b>Customer Booking Module</b>	This module helps the consumer to book the product online.
<b>Sales Transaction Module</b>	This module allows workers to monitor and measure sales transactions.
<b>Report Management Module</b>	This module allows managers to monitor inventory level data, daily and monthly revenue transaction reports.

### Non-Functional Requirement

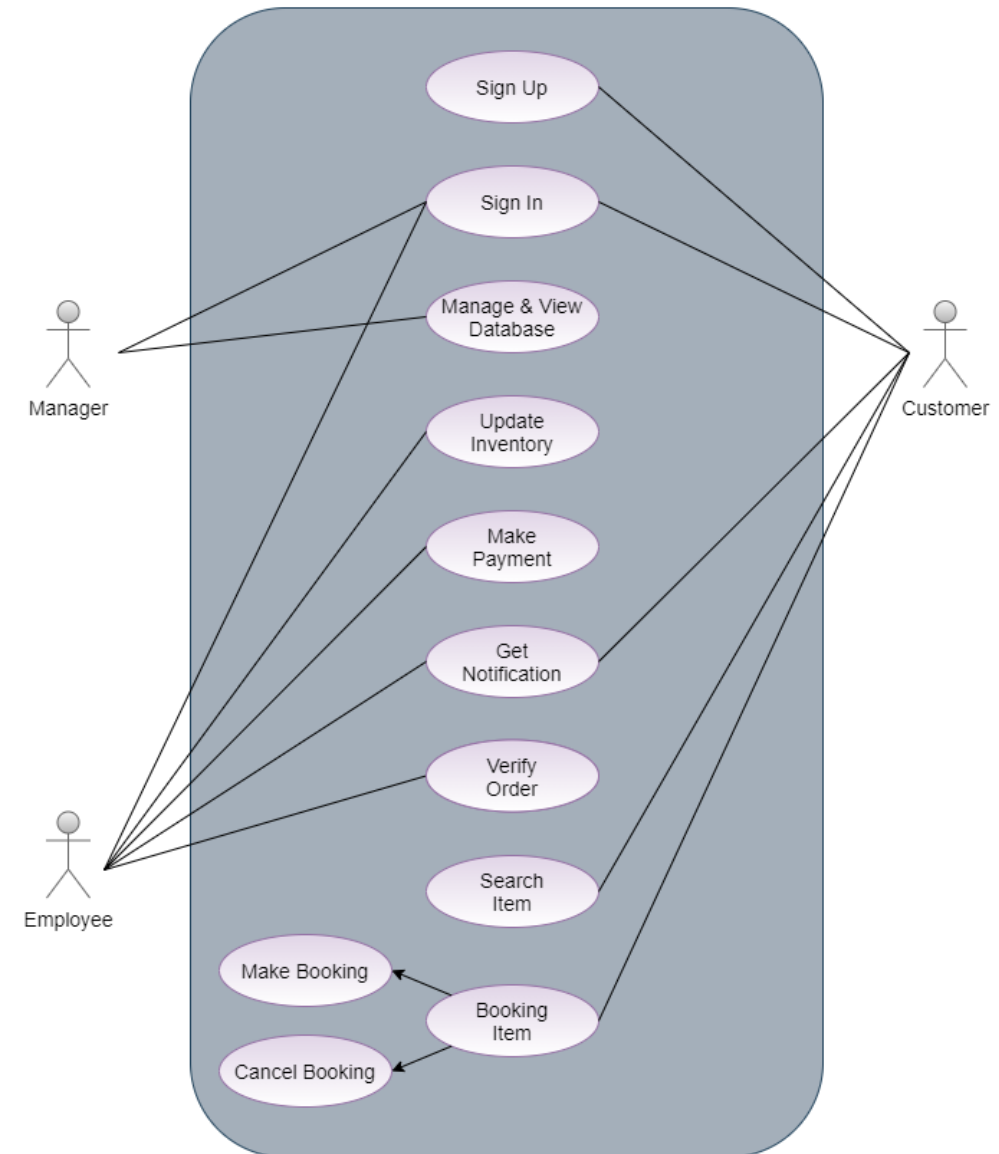
Function	Description
<b>Availability</b>	The web application is often open to all users, particularly when booking items.
<b>Maintainability</b>	This web application has to be managed and revised on a daily basis for any new item for Sambal that has arrived at the HQ.
<b>Security</b>	Get authentication for access info.
<b>Supportability</b>	Support only when user visit the website.

# System Design



# Use Case Diagram

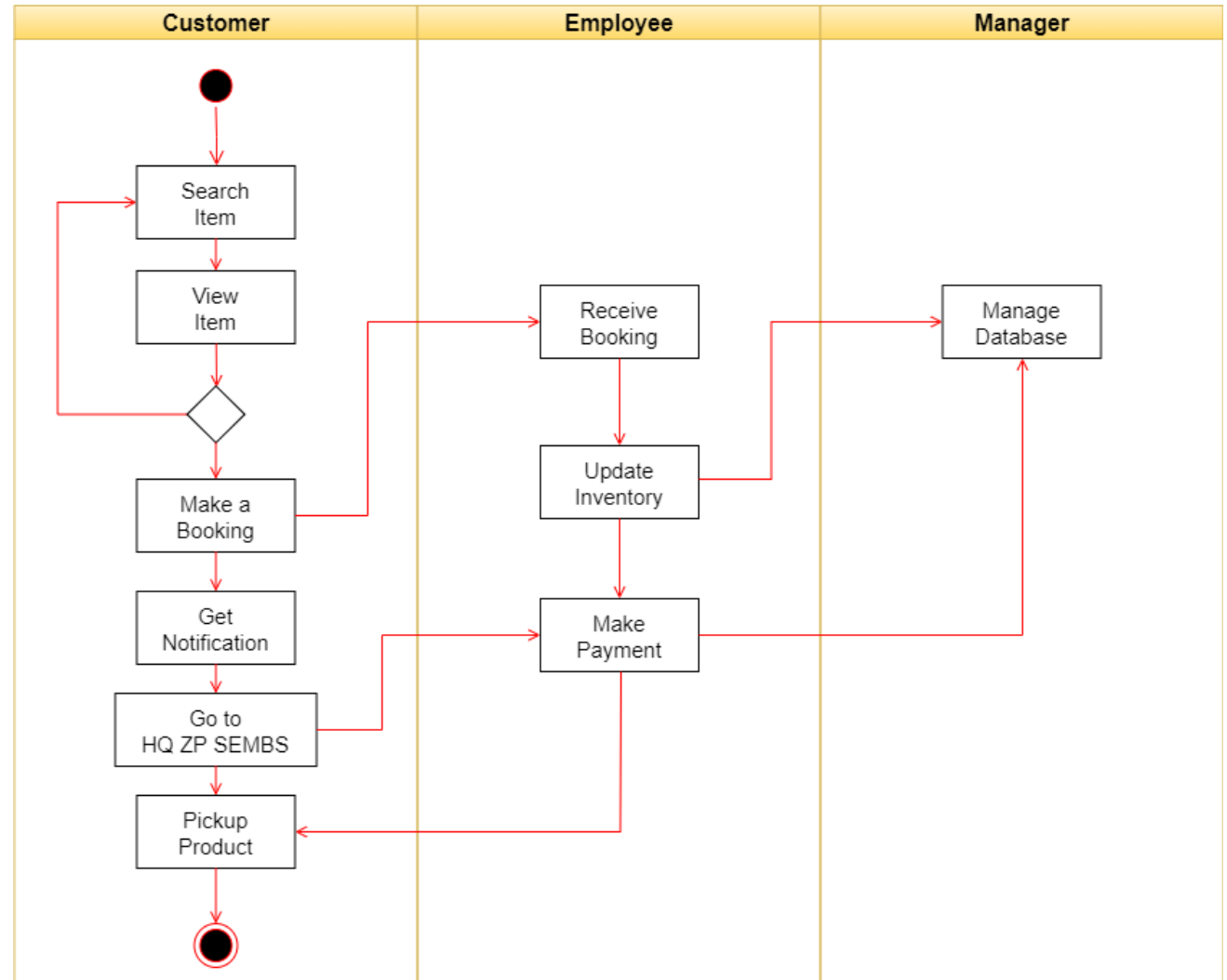
ZP SEMBS "Various Sambal" Online System Portal



# System Design

## Activity Diagram

ZP SEMBS "Various Sambal" Online System Portal



# System Design



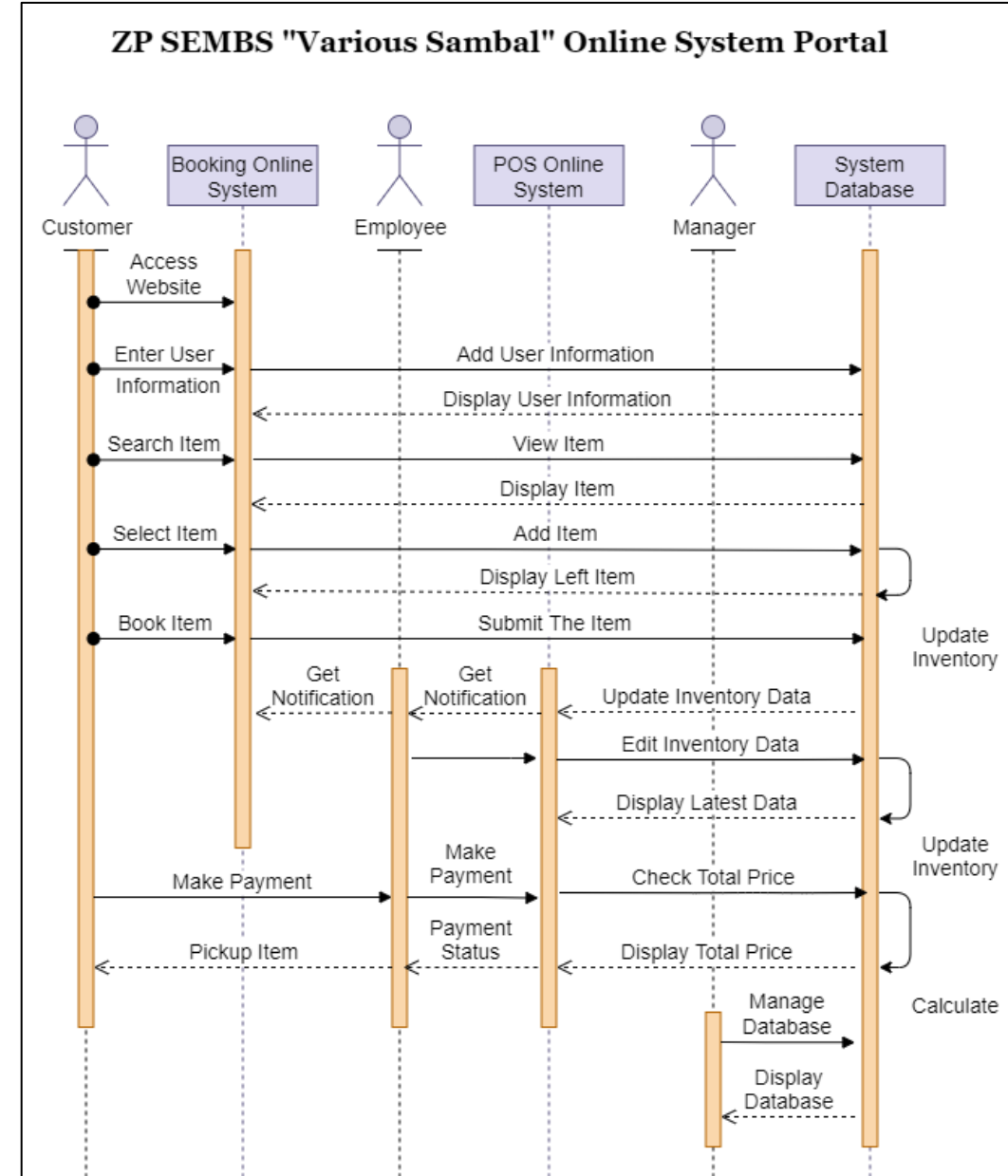
### ZP SEMBS "Various Sambal" Online System Portal

```

sequenceDiagram
    actor Customer
    actor Employee
    actor Manager
    participant BOS as Booking Online System
    participant POS as POS Online System
    participant SD as System Database

    Customer->>BOS: Access Website
    Customer->>BOS: Enter User Information
    BOS->>SD: Add User Information
    SD-->>BOS: Display User Information
    Customer->>BOS: Search Item
    BOS->>SD: View Item
    SD-->>BOS: Display Item
    Customer->>BOS: Select Item
    BOS->>SD: Add Item
    SD-->>BOS: Display Left Item
    Customer->>BOS: Book Item
    BOS->>SD: Submit The Item
    SD-->>BOS: Update Inventory
    BOS->>Employee: Get Notification
    Employee->>POS: Get Notification
    POS->>SD: Update Inventory Data
    SD-->>POS: Edit Inventory Data
    POS->>SD: Display Latest Data
    SD-->>POS: Update Inventory
    Customer->>Employee: Make Payment
    Employee->>POS: Make Payment
    POS->>SD: Check Total Price
    SD-->>POS: Display Total Price
    POS->>Manager: Manage Database
    Manager->>SD: Display Database
    SD-->>Manager: Calculate
    
```

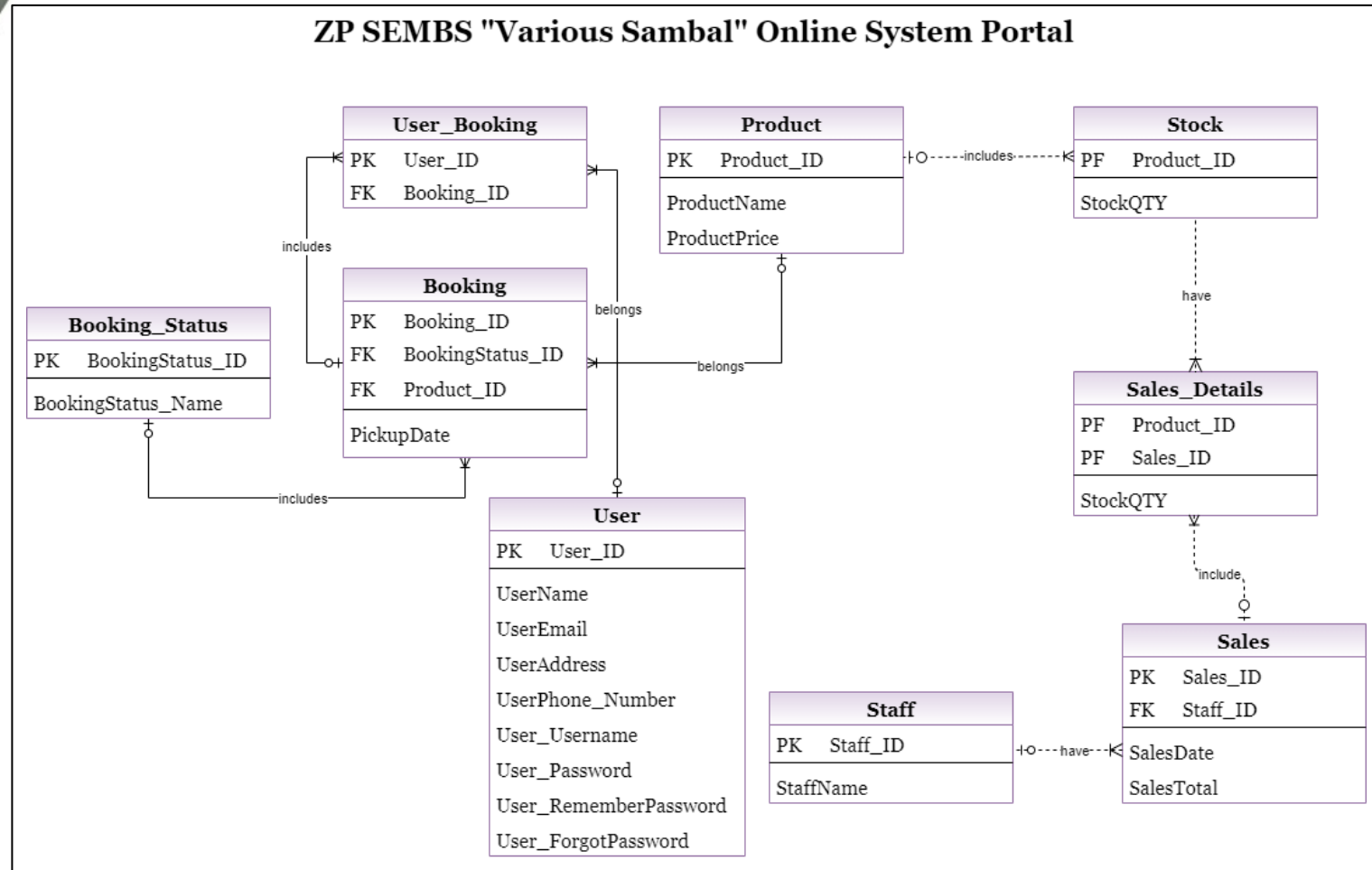
The diagram illustrates the interactions between the Customer, Employee, Manager, and the System Database. The Customer interacts with the Booking Online System, the Employee with the POS Online System, and the Manager with the System Database. The process flow includes user registration, item viewing, booking, payment, and inventory management.





# System Design

## Database Design



# Interface Design

## Home Page & Menu Page

ZP SEMBS ENTERPRISE

10:18:15 PM  
Sunday, 14 February, 2021

ZP SEMBS ENTERPRISE

Kami disini menyediakan pelbagai jenis  
makan yang sedia untuk terus dimakan.  
"RASA MEMANG NGAM"

Kami ZP SEMBS sedia membuat  
penghantaran ke seluruh Malaysia  
dan kami juga boleh COD di  
beberapa kawasan terpilih  
Sambal RASA MEMANG NGAM!

SCAN HERE  
  
011-23305116  
@Sambal\_zp.sembs

**ZP**  
SAMBAL TUMIS  
IKAN BILIS

  
RASA  
MEMANG  
NGAM!

Rasanya SANGAT TUMIS IKAN BILIS  
- Cili Api,  
- Cili Besar,  
- Bawang Besar  
- Bawang Putih  
- Belacan,  
- Ikan Bilis,  
- Garam,  
- Gula,  
- Minyak Kelapa  
Sawi!

LEVEL KEPEDASAN SAMBAL :  


150g  
RM 14.00  
MADE IN SHAH ALAM

Home Page

Admin

Staff

Product

Register

Category Products

Product's Brand

Sambal Tumis Ikan Bilis



Product's Detail

Product's Brand

Sambal Tumis Ikan Bilis

Product's Name

ZP SEMBS

Product's Weight

150

Gram

Product's Price

RM 14.00



Login

Username

Password

Login

Sila daftar masuk kedalam  
website ini untuk memudahkan  
kalian menempah sambal yang  
kalian idamkan.

Contact Us :









# Interface Design

## Login Page for User & Admin

### User Login

Login

Username

Password

Login

Sila daftar masuk kedalam website ini untuk memudahkan kalian menempah sambal yang kalian idamkan.

Contact Us :

[f](#) [t](#) [i](#) [w](#)

### Admin Login


Staff Login

10:38:10 PM  
Sunday, 14 February, 2021

Username

Password

Login





# Interface Design



## Register Page for Customer

Register Form

12:56:16 PM

Thursday, 18 February, 2021

# ZP SEMBS ENTERPRISE

Kami disini menyediakan pelbagai jenis makan yang sedia untuk terus dimakan.  
"RASA MEMANG NGAM"

Home Page

Admin

Staff

Product

Register

Borang Pendaftaran

Nama

Full Name

Email

Email

Nama Pengguna

Username

No. Telefon

Phone Number

Kata Laluan

Password

Bandar

City

Alamat

Address

Negeri

State

Data anda akan selamat didalam database ZP SEMBS

Submit



# Interface Design

## Admin Page



# Interface Design

## Employee Page



# Interface Design

## Customer Home Page





# Interface Design

## Customer Product Page


WELCOME DEAR CUSTOMER

8:31:55 PM  
Monday, 15 February, 2021


ZP SEMBS ENTERPRISE

Kami disini menyediakan pelbagai jenis  
makan yang sedia untuk terus dimakan.  
"RASA MEMANG NGAM!"


Kami ZP SEMBS sedia membuat  
penghantaran ke seluruh Malaysia  
dan kami juga boleh COD di  
beberapa kawasan terpilih  
Sambal RASA MEMANG NGAM!

SCAN HERE  
  
011-23305716  
@Sambal\_zp.sembs

**ZP**  
SAMBAL TUMIS  
IKAN BILIS



Ramuan SAMBAL TUMIS IKAN BILIS:  
- Cili Api,  
- Cili Besar,  
- Bawang Besar,  
- Bawang Putih,  
- Belacan,  
- Ikan Bilis,  
- Garam,  
- Gula,  
- Minyak Kelapa  
Santan

LEVEL KEPEDASAN SAMBAL :  


150g  
RM 14.00  
MADE IN SIAM ALAM

Home Page

Product


Cart

Status

Search Product

Category Products

Product's Brand  
Sambal Tumis Ikan Bilis




Product's Details

ID Produk  
Product ID  
001

Nama Produk  
Name of Product  
Sambal Tumis Ikan Bilis

Harga Produk  
Price of Product  
RM 14.00

Berat Bersih  
Weight  
150 Gram

 Add to Cart

Log Out

# Interface Design

## Customer Cart Page


WELCOME DEAR CUSTOMER

9:02:59 PM  
Monday, 15 February, 2021


ZP SEMBS ENTERPRISE

Kami disini menyediakan pelbagai jenis  
makan yang sedia untuk terus dimakan.  
"RASA MEMANG NGAM"


Kami ZP SEMBS sedia membuat  
penghantaran ke seluruh Malaysia  
dan kami juga boleh COD di  
beberapa kawasan terpilih  
Sambal RASA MEMANG NGAM!

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011-23305116  
@Sambal\_zp.sembs

**ZP**  
SAMBAL TUMIS  
IKAN BILIS

  
**RASA  
MEMANG  
NGAM!**

Rumuan SAMBAL TUMIS IKAN BILIS  
• Cili Api,  
• Cili Besar,  
• Bawang Besar  
• Bawang Putih  
• Belacan,  
• Ikan Bilis,  
• Garam,  
• Gula,  
• Minyak Kelapa  
Santan

LEVEL KEPEDASAN SAMBAL :  


150g  
RM 14.00  
MADE IN SHAH ALAM

Home Page


Product

Cart

Status

Search Product

Cart

Gambar Picture	Nama Produk Product Name	Bilangan Number	Kuantiti Stok Stock Quantity	Harga Price	Jumlah Total	
	Sambal Tumis Ikan Bilis	30	500	420	420	Delete

Jumlah  
Total Price

RM 420

Proceed to Checkout



# Interface Design

## Customer Booking Status Successful


WELCOME DEAR CUSTOMER

9:15:22 PM  
Monday, 15 February, 2021

**ZP SEMBS ENTERPRISE**  
Kami disini menyediakan pelbagai jenis  
makan yang sedia untuk terus dimakan.  
"RASA MEMANG NGAM"


Kami ZP SEMBS sedia membuat  
penghantaran ke seluruh Malaysia  
dan kami juga boleh COD di  
beberapa kawasan terpilih  
Sambal **RASA MEMANG NGAM!**

SCAN HERE



011-23305116  
@Sambal\_zp.sembs

**ZP SEMBS**  
SAMBAL TUMIS  
IKAN BILIS




150g RM 14.00 MADE IN SHAH ALAM


Ramuan SAMBAL TUMIS IKAN BILIS

- Cili Api,
- Cili Besar,
- Bawang Besar
- Bawang Putih
- Belacan,


- Ikan Bilis,
- Garam,
- Gula,
- Minyak Kelapa  
Santal

LEVEL KEPEDASAN SAMBAL :



[Home Page](#) [Product](#) [Cart](#) [Status](#)  

Cart


Gambar Picture	Nama Produk Product Name					
	Sambal Tumis Ikan Bilis	30	500	420	420	Delete

Jumlah  
Total Price

**RM 420**

Proceed to Checkout

SUCCESSFUL

 Your booking is Successful !!!  
Pesanan anda sudah Berhasil !!!

OK



# Interface Design

## Customer Status Page

CustomerStatus

9:47:44 PM  
Monday, 15 February, 2021

Kami ZP SEMBS selalu membuat pengemasan ke seluruh Malaysia dan kami juga boleh COD di beberapa kawasan terpilih.

Sambal **RASA MEMANG NGAM!**

SCAN HERE



011-23305116  
@Sambal\_zp.sembs

**ZP**  
SAMBAL TUMIS IKAN BILIS



Rasanya LEMAH TUMIS IKAN BILIS

- Cili Api,
- Cili Besar,
- Bawang Besar
- Bawang Putih
- Belacan,

- Ikan Bilis,
- Garam,
- Gula,
- Minyak Kelapa Sawit

LIVEL KEPYODASAM SAMBAL :



150g

RM 14.00

MADE IN SHAW ALAM

Home Page

Product

Cart

Status

Search Product

Purchase Details

Nama  
Name

Muhamad Norhaziq

Email  
Email

haziq@gmail.com

Nama Pengguna  
Username

HAZIQKTQ

No. Telefon  
Phone Number

0182588138

Alamat  
Address

NO 18 Jalan Gulang Gulang

Bandar  
City

Kuala Selangor

Negeri  
State

Selangor

Jumlah  
Total Price

RM 420

Save

### 4.3.1 Functional Requirement

The functional requirement is based on the web application itself which can demonstrate what the web application can do. These are the following functional requirements: -

*Table 5: Functional Requirement*

<b>Function</b>	<b>Description</b>
Inventory Management Module	This module allows workers or employees to record the inventory using a scanner, update the product details and keep track of the product that needs to be replenished.
Customer Booking Module	This module helps the consumer to book the product online.
Sales Transaction Module	This module allows workers to monitor and measure sales transactions.
Report Management Module	This module allows managers to monitor inventory level data, daily and monthly revenue transaction reports.

### 4.3.2 Non-Functional Requirement

*Table 6: Non-Functional Requirement*

<b>Function</b>	<b>Description</b>
Availability	The web application is often open to all users, particularly when booking items.
Maintainability	This web application has to be managed and revised daily for any new item for Sambal that has arrived at the HQ.
Security	Get authentication for access info.
Supportability	Support only when users visit the website.



#### **4.4 Summary**

Based on the data collected and any research is seen in this chapter, the questionnaire data are outlined and graphically displayed using Google forms which demonstrate the use of the requirement. According to the analysis that had been made, some enhancement could be made the web framework more perfect and fulfilled client expectations.

## **CHAPTER 5**

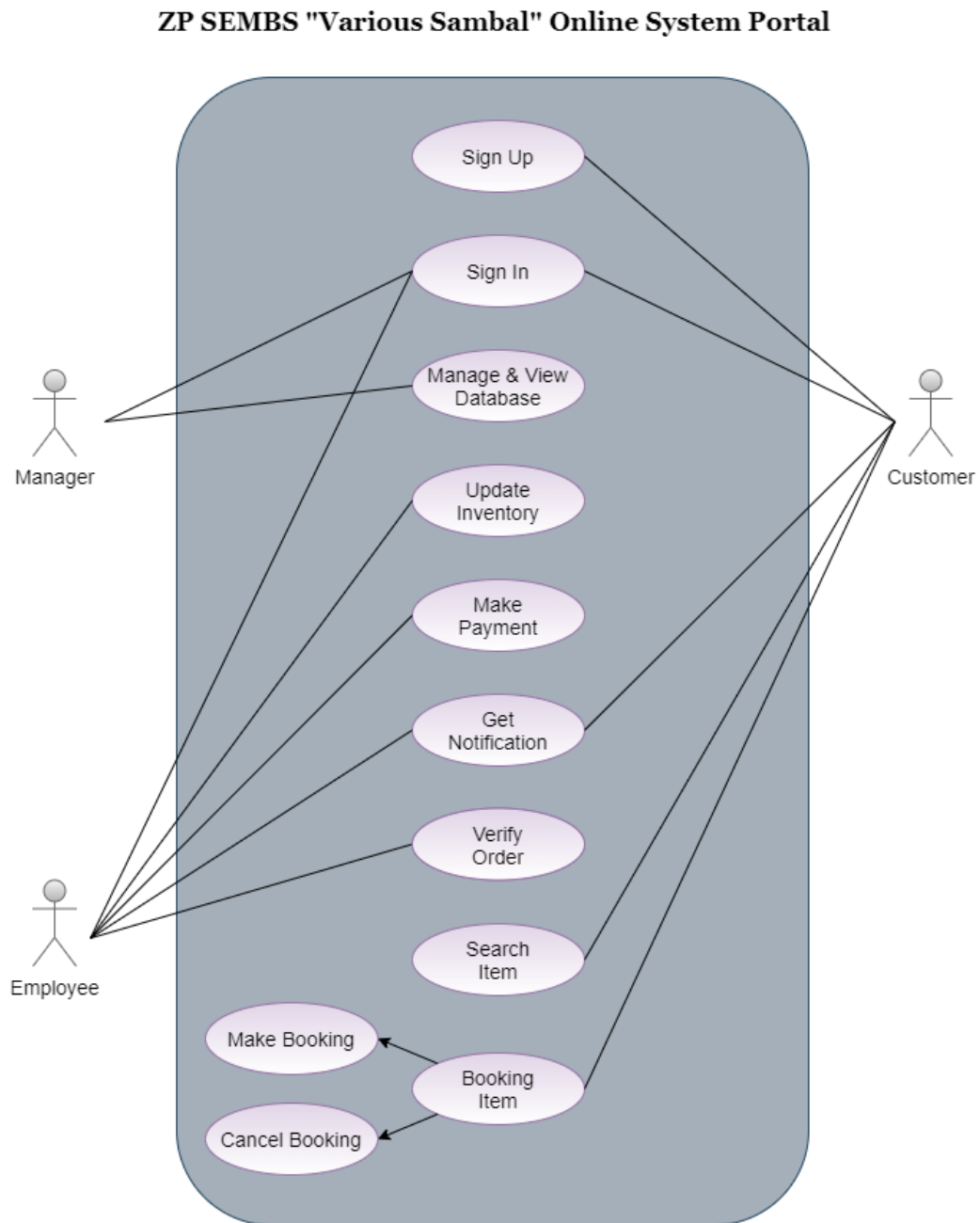
### **SYSTEM DESIGN**

#### **5.1 Introduction**

In this chapter, the design of the project is the most important part of the project to support the web-based application of the ZP SEMBS Various Sambal Online System Portal. This chapter will show the user how the web-based program is structured and how the user communicates with the web application.

## 5.2 System Design

### 5.2.1 Use Case Diagram



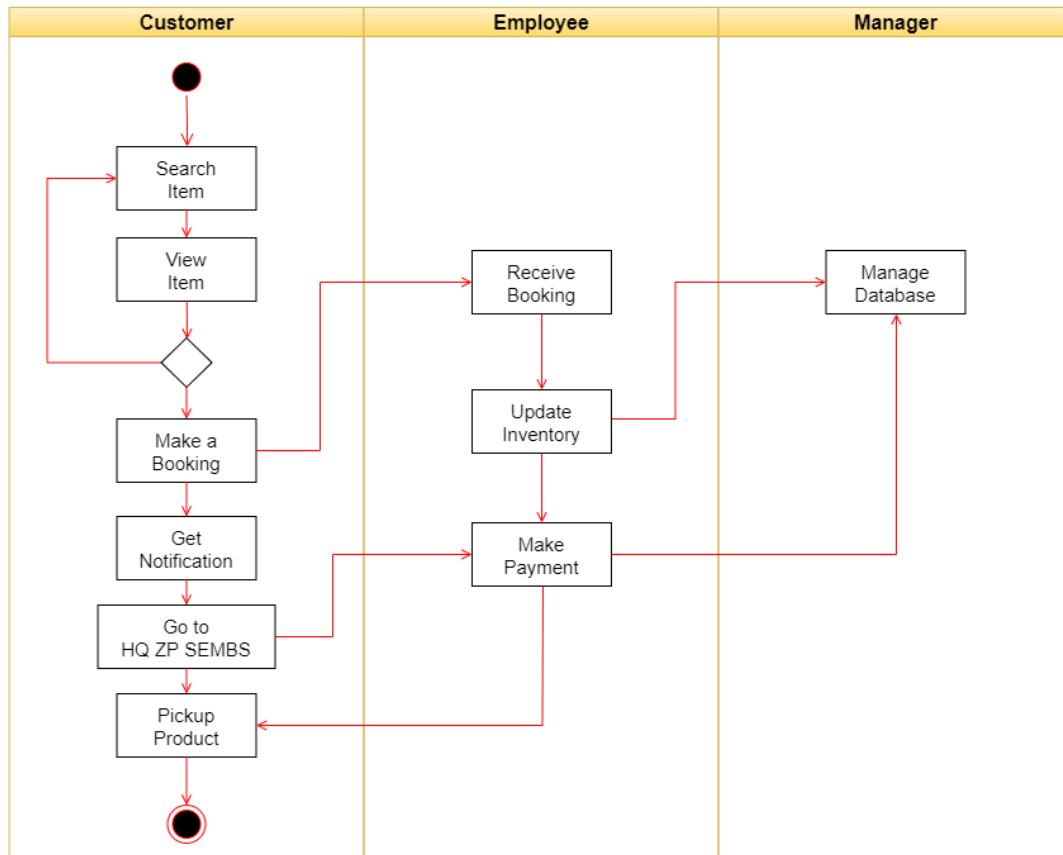
*Figure 14: Use Case Diagram*



Figure 14 above demonstrates the use of the case diagram for the ZP SEMBS Various Sambal Online System Portal. The creator must refer to the use case diagram that has been made to build the web application properly. The customer's order will be issued directly by the employee and the employee will schedule the item according to the customer's order. After all the products or sambal are gathered and arranged in one location, the customer can pick up and make purchases by himself according to the chosen slot time.

## 5.2.2 Activity Diagram

### ZP SEMBS "Various Sambal" Online System Portal



*Figure 15: Activity Diagram*

The activity diagram as seen in Figure 15 above illustrates how users in the web application behave on the flow of operations. For example, the figure above shows that the employee is the most important part of this project because he is the one who will collect all the data in the period given right after getting a booking order from the client.

### 5.2.3 Sequence Diagram

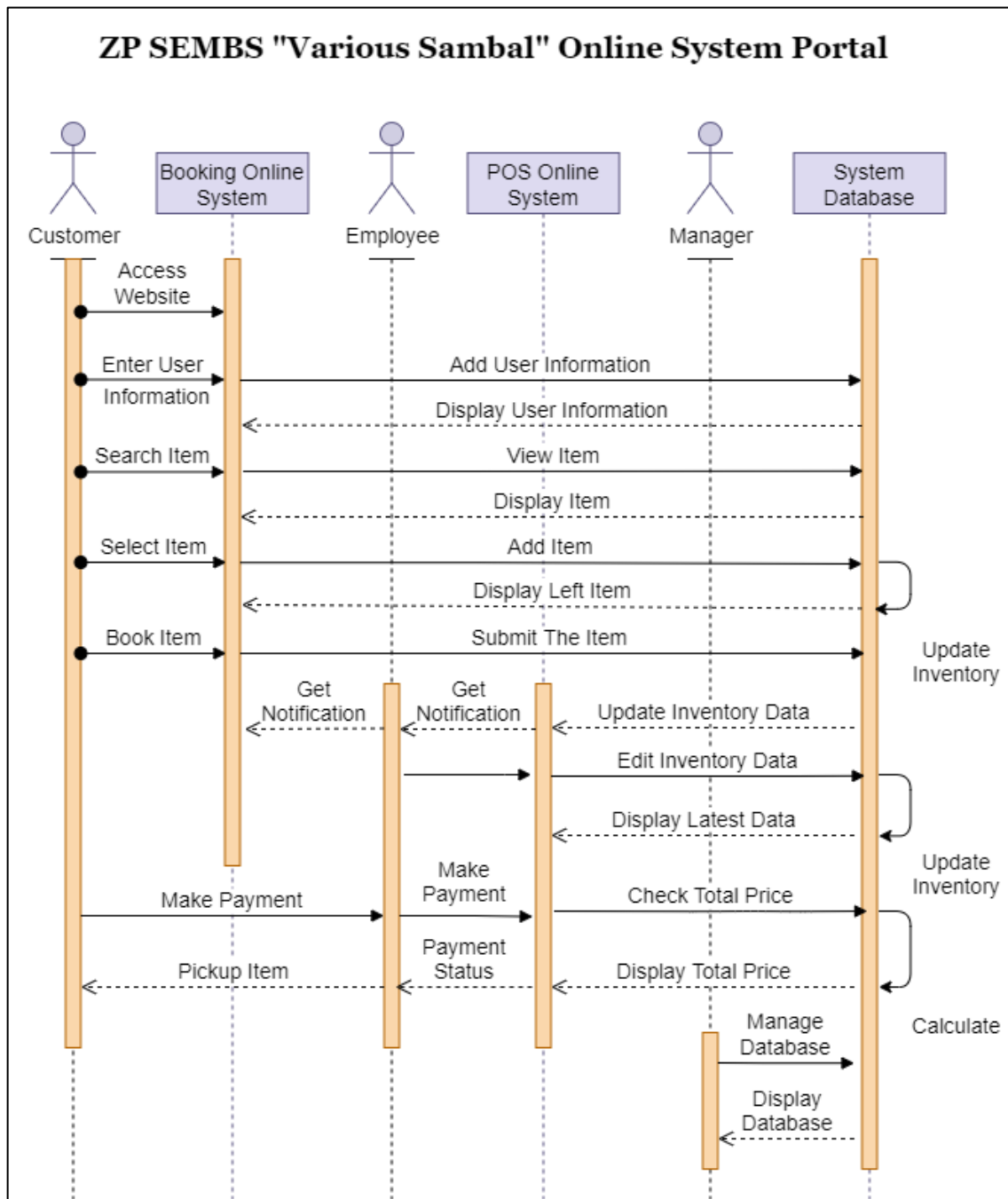


Figure 16: Sequence Diagram

Figure 16 shows the sequence diagram for the web-based implementation of the ZP SEMBS Various Sambal Online System Portal. The purpose of the sequence diagram is to draw the flow of the project activity that the developer would use to create the web application. Other than that, the sequence diagram also provides the developer with details and basic instructions on designing a web application.



## 5.2.4 Database Design

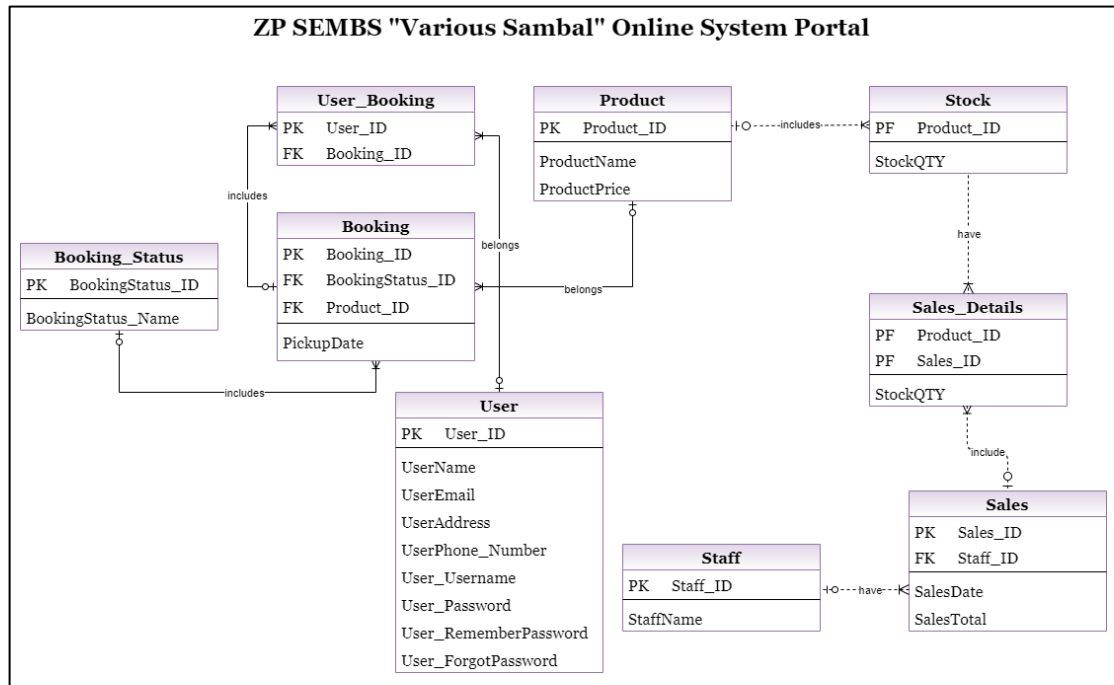


Figure 17: Database Design

The main purpose of the Database Design seen in Figure 17 above is to define the relationship between the table and the other table and to consider the primary attributes for each table that exists the database. It can also be called UML Class Diagram because the main design of this Database Design is for a database.

## 5.3 Interface Design

### 5.3.1 Home Page and Manu Page



Figure 18: Home Page Interface

Figure 18 above shows the Home Page Interface on ZP SEMBS Portal. The customer can see the variety of the product on the sidebar on the home page. Customers can book a product by logging in or registering as a customer on the portal by clicking “Register” on the menu bar. The admin will use the portal when they login to their account by clicking on “Admin” and the employee can use their account by clicking on “Staff” with the password and username given.

Staff Login

10:38:10 PM  
Sunday, 14 February, 2021

**ZP** Sambal  
**SAMBAL TUMIS IKAN BILIS**

**RASA MEMANG NGAM!**

Username

Password

Login

*Figure 19: Login Page for Employee/Staff and Admin*

Figure 19 above is shown for Login Page for Employee and Admin. This form is only available for an employee and admin username with the password given.



The image shows a login form titled "Login". It contains two input fields: "Username" and "Password". Below these fields is a red "Login" button. Under the button, there is a message in orange text: "Sila daftar masuk kedalam website ini untuk memudahkan kalian menempah sambal yang kalian idamkan." Below this message is the text "Contact Us :" followed by four social media icons: Facebook, Twitter, Instagram, and WhatsApp.

*Figure 20: Sign In Form for Customer/User*

Figure 20 shows about Login Form. This form sign-in above is only available for a customer who already registers to be a member of the ZP SEMBS Portal with the username and password that the customer registers on its own.

Register Form
12:56:16 PM
Thursday, 18 February, 2021

# ZP SEMBS ENTERPRISE

Kami disini menyediakan pelbagai jenis makanan yang sedia untuk terus dimakan.  
"RASA MEMANG NGAM"

Kami ZP SEMBS sedia membuat pengapcaraan ke seluruh Malaysia dan kami juga boleh COD di beberapa kawasan terpilih

Sambal RASA MEMANG NGAM

SCAN QR CODE

011-23305116

@Sambal\_zp.sembs

150g

**ZP**

SAMBAL TUNGS IKAN BELIS

**RASA MEMANG NGAM!**

RM 14.00

MADE IN DAHAR ALAM

RUMAH SAMBAL TUNGS IKAN BELIS

- Cili Api
- Cili Rangs
- Bawang Besar
- Bawang Putih
- Belacan

- Ikan Bilis
- Garam
- Gula
- Minyak Kelapa
- Serai

LEVEL KEPEDASAN SAMBAL :

1 2 3 4 5

[Home Page](#)
[Admin](#)
[Staff](#)
[Product](#)
[Register](#)

## Borang Pendaftaran

Nama Full Name	Email Email
<input type="text"/>	<input type="text"/>
Nama Pengguna Username	No. Telefon Phone Number
<input type="text"/>	<input type="text"/>
Kata Laluan Password	Bandar City
<input type="text"/>	<input type="text"/>
Alamat Address	Negeri State
<input type="text"/>	<input type="text"/>

Data anda akan selamat didalam database ZP SEMBS

Submit

Figure 21: Sign Up Page for Customer/User

Figure 21 shows the Registration Form. This registration form is only valid for the user to be a customer to allow the user to make a booking product.



### 5.3.2 Admin Page



*Figure 22: Admin Home Page*

Figure 22 shown above is about Admin Homepage. This form has appeared when an employee for ZP SEMBS Enterprise clicking the Admin button on the Homepage Interface. There are symbols in the menu bar that derive admin from the name of the symbols tab.

Employee

2:38:21 PM  
Monday, 15 February, 2021

**ZP SEMBS ENTERPRISE**  
WELCOME ADMIN

[Employee](#) [Product](#) [Order](#)

[Notification](#)  
 [Help](#)

**Employee Management**

Search Employee

Add Employee

Edit / Delete Employee

Change Password

**Log Out**

**Employee's Details**

ID Pekerja <i>Employee ID</i>	Jenis Pekerja <i>Type Of Employee</i>	
<input type="text"/>	<input type="text"/>	
Nama Depan <i>Front Name</i>	Nama Tengah <i>Middle Name</i>	Nama Belakang <i>Last Name</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>
Tarikh Lahir <i>Date of Birth</i>	Umur <i>Age</i>	Jantina <i>Sex</i>
<input type="text"/>	<input type="text"/>	<input type="radio"/> Male <input type="radio"/> Female
Alamat <i>Address</i>	Poskod <i>Postcode</i>	No. Telefon <i>Phone Number</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Figure 23: Admin Employee Page

This is an admin user employee form shown above in Figure 23. In this method, the administrator can add workers, update employee records, edit employee passwords, locate employees and log out of the portal. At the sidebar, the admin will click a name menu depending on what the admin needs to do. So, it's going to derive admin to the website the admin needs to do.

Product

3:02:29 PM  
Monday, 15 February, 2021

**ZP SEMBS ENTERPRISE**  
WELCOME ADMIN

**Employee** **Product** **Order**

**Notification**  
 **Help**

**Product Management**

Search Product

Add Product

Edit / Delete Product

**Log Out**

**Product's Details**

ID Produk <i>Product ID</i>	Gambar <i>Picture</i>		
<input type="text"/>			
Nama Produk <i>Name of Product</i>	Harga Produk <i>Price of Product</i>	Kuantiti Produk <i>Quantity of Product</i>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Keterangan Product <i>Product's Details</i>		<input type="text"/>	

*Figure 24: Product Page*


This is the Product Page shown above as known as Figure 24. This page is contains searching of the product, adding product process, edit or delete the product and log out from the portal process based on the sidebar menu.

Order


3:18:45 PM  
Monday, 15 February, 2021

ZP SEMBS ENTERPRISE


WELCOME ADMIN



Employee



Product



Order

Notification

Help

Order Management

Booking List

Booking List

Log Out

Bil No

Nama Name

Email Email

No Telefon Phone Number

Status Status

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Details
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Details
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Details
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Details
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Details

Figure 25: Order Page

Figure 25 shows the Order Page. This page is the list of consumers of the product booking. The booking list will show after the user registers the portal and then makes a booking. There is a button in the booking list that will ask the employee to enter the product in depth.



### 5.3.3 Staff / Employee Page



*Figure 26: Staff / Employee Home Page*

Figure 26 above shows about Staff / Employee Home Page. This page could look the same as the admin page, but there's a difference like that. Employees can only navigate the Product and Order page for the employee home page. The employee must manage all of them.

### 5.3.4 Customer Home Page



Figure 27: Customer Home Page

It is the home page of the client that is shown above as known as Figure 27. The customer can be accessed when the customer registers on the ZP SEMBS portal. There is a home tab, product, cart, status, and searching for the product on the menu bar. This page also shows the details for contact management of ZP SEMBS and the user also can log out of their account on this page. There is a range of group product firms for the sidebar. Customers can click on the category that they want to buy.



Figure 28: Customer Product Page

Figure 28 is the Customer Product Page, which is this page functions for the customer or user to click on the Add to Cart or trolley symbol to make a booking.

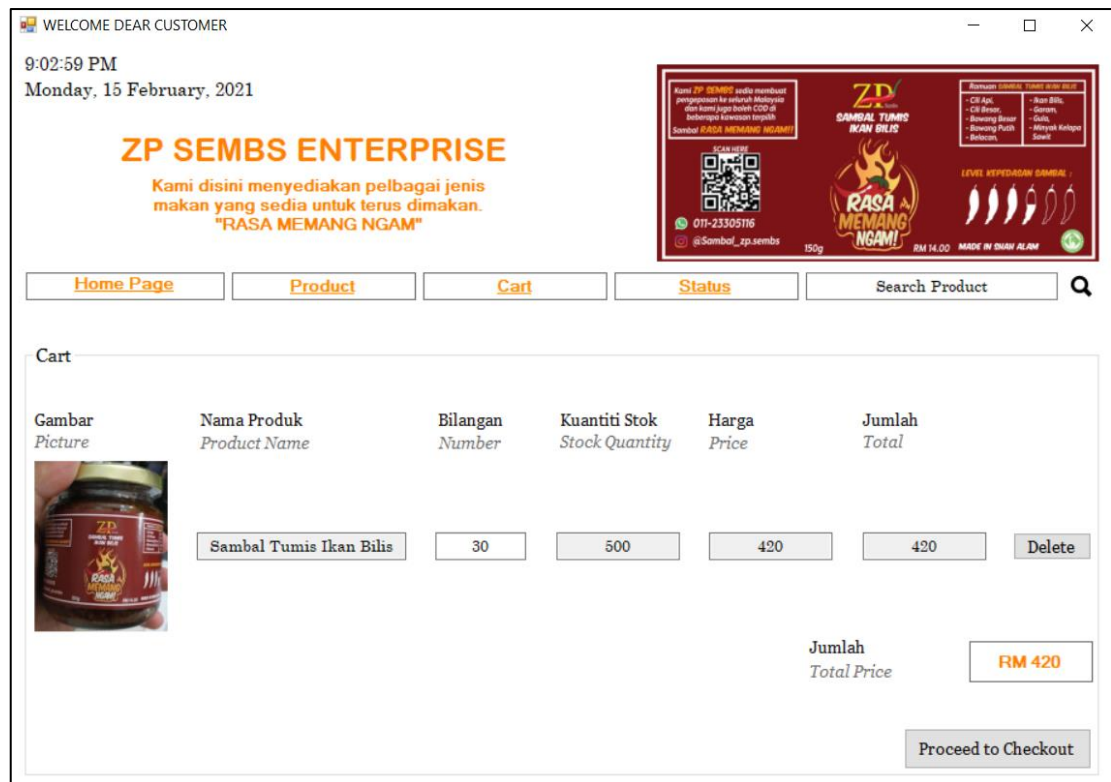
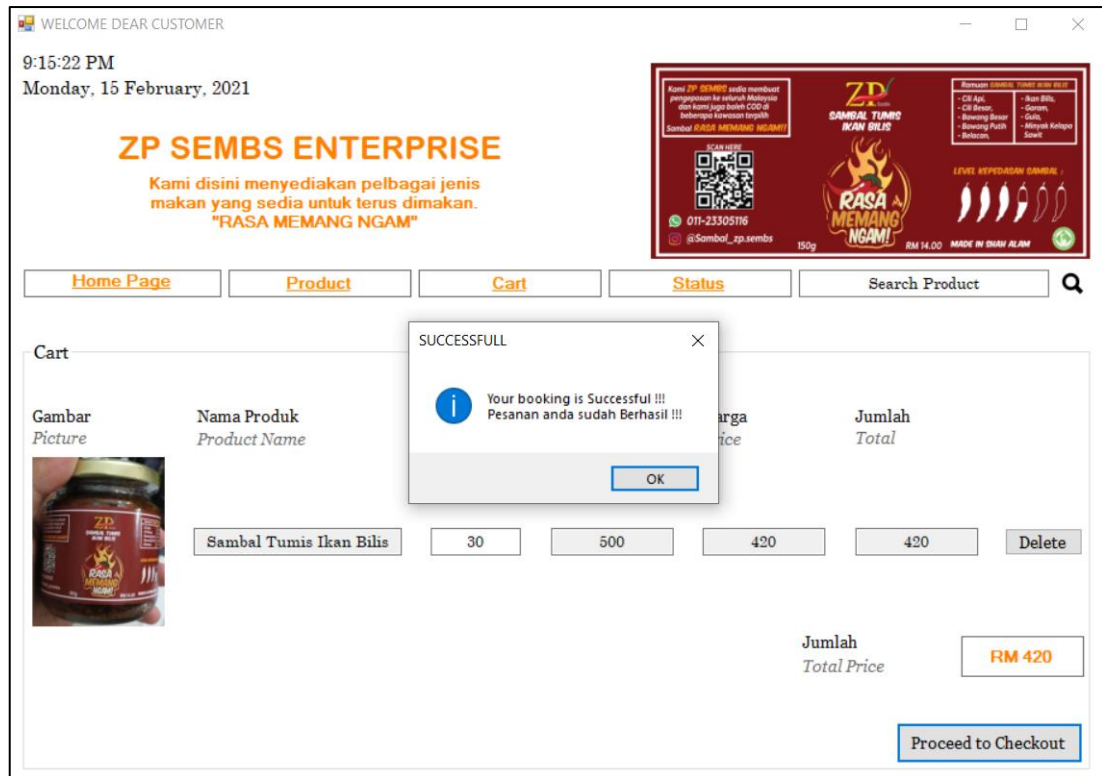


Figure 29: Customer Cart Page

Figure 29 shows about Customer Cart Page, it is the Customer Cart tab that will be displayed when the Customer clicks the Cart icon on the Product side. Customers will edit how much a book they want to make. The total price of the booking package will be revealed.





*Figure 30: Customer Booking Successful*

Figure 30 is a picture of the Customer Booking Successful message box. This message box will have appeared when the customer clicks to proceed to the checkout button.

CustomerStatus
9:47:44 PM  
Monday, 15 February, 2021

**ZP SEMBS ENTERPRISE**  
Kami disini menyediakan pelbagai jenis  
makan yang sedia untuk terus dimakan.  
**"RASA MEMANG NGAM"**

Kami ZP SEMBS sedia membuat  
pengantaran ke seluruh Malaysia  
dan kami juga boleh COD di  
berbagai kawasan sekitar.

Sambal **RASA MEMANG NGAM!**



011-23305196  
@Sambal\_zp.sembs

**ZP SEMBS**  
**SAMBAL, TUMIS**  
**IKAN BULIS**

**RASA MEMANG NGAM!**

150g RM 14.00 MADE IN KUALA SELANGOR

**Bahan-bahan dalam 150g RASA MEMANG NGAM :**

- 1/2 kg Ayam
- 1/2 kg Bawal
- 1/2 kg Ikan
- 1/2 kg Udang
- 1/2 kg Telur
- 1/2 kg Ayam
- 1/2 kg Ikan
- 1/2 kg Udang
- 1/2 kg Telur
- 1/2 kg Ayam
- 1/2 kg Ikan
- 1/2 kg Udang
- 1/2 kg Telur
- 1/2 kg Ayam
- 1/2 kg Ikan
- 1/2 kg Udang
- 1/2 kg Telur

[Home Page](#)
[Product](#)
[Cart](#)
[Status](#)

**Purchase Details**

<b>Nama</b> <i>Name</i>	<b>Email</b> <i>Email</i>
Muhamad Norhaziq	haziq@gmail.com
<b>Nama Pengguna</b> <i>Username</i>	<b>No. Telefon</b> <i>Phone Number</i>
HAZIQKTQ	0182588138
<b>Alamat</b> <i>Address</i>	<b>Bandar</b> <i>City</i>
NO 18 Jalan Gulang Gulang	Kuala Selangor
<b>Negeri</b> <i>State</i>	<b>Jumlah</b> <i>Total Price</i>
Selangor	RM 420

Save

Figure 31: Customer Status Page

Figure 31 shows about Customer Status Page which is this tab is sending the specifics of the booking from the customer to the admin or the employee. It will not provide an online purchase, but just offer specifics of the product booking when you press the "Save" button.