



Order Fast Food Online

PROGRAMMING ASSIGNMENT 02

Introduction

A web API is a development in web service where emphasis has been moving to simpler representational state transfer (REST) based communications. Restful APIs do not require XML-based web service protocols (SOAP and WSDL) to support their interfaces.

This report is regarding to online fast food ordering web service which is implemented using REST full API. There are food details already available on the system; so that users can view the prices. before login to the system users can select multiple food items by providing the quantity and they can add them to the shopping cart. Once selection is done they can view their orders. For each and every order they will be granted loyalty points. Based on those, a discount will be calculated for each customer. They can do payments via mobile phone number (which will be added to the phone bill) or using credit cards (by connecting to the "Sampath" bank payment gateway). Total bill will be calculated according to the discount they get and once the payment is done SMS or email notification will be sent.

Front end of this system is being implemented using HTML/CSS and the back end is being implemented express JS, node JS, JQuery. Web client is being implemented using AJAX. Base64 encryption and decryption mechanism is being used to secure the sensible data (username, password) which are passing via the network.

View food details

Details of the available food items are already available in the RESTful resources which can be accessible via HTTP requests. Customers can view the prices of food items before log in to the system. Once user navigated to “index.html” page they can click the button to view food details. They can order multiple food items by selecting the quantity they want. This how the system handles the “GET” request to access restful web resources.

Client side

- ```

 $('#getfood-button').on('click',function(){
 $.ajax({
 url:'/products',
 method:'GET',
 contentType:'application/json',
 success:function (response){
 var tbodyEl = $('tbody');
 tbodyEl.html("");
 response.products.forEach(function(product){
 tbodyEl.append('\
 <tr class="info">\
 <td><input type="lable" value="" +product.id + "" class="create-input-
id" disabled></td>\
 <td><input type="lable" value="" +product.name + "" class="create-
input-name" disabled></td>\
 <td><input type="lable" value="" +product.price+"" class="create-
input-price" disabled></td>\
 <td> <select class="form-
control"><option>1</option><option>2</option><option>3</option><option>4</o
ption><option>5</option></select>\
 </td>\
 <td><button class="btn btn-primary" >Buy</button>\
 </td>\
 </tr>\
 ');
 });
 }
 });
 });

```

### server side

- ```

    app.get('/products',function(req,res){
    
```

```
res.send({products:products});
});
```

Add to the shopping cart

As above mentioned, user can select multiple food items alone with the quantity which they wish to buy. All the orders will be saved in the system enabling them to view later. This is how the web client handles the “POST” request.

- ```

$('table').on('click','>.btn-primary',function(){

 var rowEl = $(this).closest('tr');
 var createInputId = rowEl.find('.create-input-id').val();
 var createInputName = rowEl.find('.create-input-name').val();
 var createInputPrice = rowEl.find('.create-input-price').val();
 var createInputQuantity = rowEl.find('.form-control').val();

 $.ajax({
 url:'/ordersAccHome2',
 method:'POST',
 contentType:'application/json',
 data: JSON.stringify({
 quantity : createInputQuantity,
 oName : createInputName,
 oPrice : createInputPrice

 }),
 success:function(response){
 console.log(response);
 }
 });
});

```

This is how the server side handles the orders. For each and order customers will be granted with loyalty points which can be used later on, to get discounts. An id will be generated for each and every order.

- ```

app.post('/ordersAccHome2',function(req,res){
    var madeOrderQuantity = req.body.quantity;
    var madeOrderName = req.body.oName;
    var madeOrderPrice = req.body.oPrice;
    var discount=0;
    OcurrentId++;

```

```

currentLoyaltyPoint=currentLoyaltyPoint+0.5;
if(currentLoyaltyPoint==1)
{
    discount=1;
}
else if((currentLoyaltyPoint>1)&&(currentLoyaltyPoint<4))
{
    discount=2;
}
else if(currentLoyaltyPoint>=4)
{
    discount=3;
}
var totalPrice = madeOrderQuantity*madeOrderPrice
orders.push({
    orderId:OcurrentId,
    oName: madeOrderName,
    quantity:madeOrderQuantity,
    oPrice:totalPrice,
    discount:discount,
    loyaltyPoint:currentLoyaltyPoint

});

res.send({orders:orders});

});

```

view orders

Once user navigate to “my orders” page they can view their orders along with the loyalty points and the discount they got. Those details will be taken from restful web resources.

Client side

- ```

$(function(){
$('#get-button').on('click',function(){
$.ajax({
 url:'/Myorders',
 contentType:'application/json',
 success:function (response){
 var tbodyEl = $('tbody');

 response.orders.forEach(function(order) {
tbodyEl.html("");

```

```
tbodyEl.append('\n
 <tr class="success">\n
 <td class="id">' + order.orderId + '</td>\n
 <td class="name">' + order.oName + '</td>\n
 <td class="quantity">' + order.quantity + '</td>\n
 <td class="price">' + order.oPrice + '</td>\n
 <td class="discount">' + order.discount + '</td>\n
 <td class="discount">' + order.loyaltyPoint + '</td>\n
 </tr>\n
');
});
 }
 });
});
```

#### server side

- ```
app.get('/Myorders',function(req,res){
  res.send({ orders :orders });
});
```

Delete Orders

Customers can delete the orders which they have placed before. System searches for the given order id from the database and remove it. Order id will be passed to the server through the URL attached as a query parameter.

Server side

- ```
app.delete('/deleteOrder/:id',function(req,res){
 var id = req.params.id;
 var found = false;

 orders.forEach(function(order, index) {
 if (!found && order.orderId === Number(id)) {
 orders.splice(index, 1);
 }
 });
 res.send('Successfully deleted order!');
});
```

## Calculate bill

Customers will be granted with loyalty points for each and every order they make. Based on those points they will get a discount when calculating the the total bill. This is how the server side handles that process.

### Server side

- ```

currentLoyaltyPoint=currentLoyaltyPoint+0.5;
if(currentLoyaltyPoint==1)
{
    discount=1;
}
else if((currentLoyaltyPoint>1)&&(currentLoyaltyPoint<4))
{
    discount=2;
}
else if(currentLoyaltyPoint>=4)
{
    discount=3;
}
var totalPrice = madeOrderQuantity*madeOrderPrice

```

Users can view the total discount they got as well as the total amount to be paid by clicking on “view total discount” and “calculate total price” buttons.

calculate total bill amount according to the discount

- ```

app.get('/Mypayment',function(req,res){
var t=0;
var d=0;
orders.forEach(function(order,index){
 t=t+order.oPrice;
 d=order.discount;
});
var amountAfterDiscount = (t-((t*d)/100));
payment.push({
 amount:amountAfterDiscount
});

```

```
res.send({totalAmount:amountAfterDiscount});
```

```
});
```

view discount

- ```
app.get('/Mydiscount',function(req,res){
  var d=0;
  orders.forEach(function(order,index){
    d=order.discount;
  });
  customers.push({
    discount:d
  });
});
```

Enter Customer Details

In order to make the payment they must enter their username, password, name and address to the system. If any of those information is missing system doesn't allow to enter payment details. Username and password will be encrypted (Base64 encrypting mechanism) before sending to the server. This is used as a security mechanism to protect sensible data which are passing through the network.

Client side

- ```
var encUn = btoa(cusUsername.val());
var encPW = btoa(cusPassword.val());
```

server side

Again they will be decrypted at the server side. To do that btoa, atob functions are being used.

- ```
var DecUn = atob(EncNewcusUsername);
var DecPw = atob(EncNewcusPassword);
```

All these data are being saved at server side for future references.

Ex:- Every week, a randomly chosen customer may get an award to have dinner for two at a luxury hotel.

Choose a Random Customer from the Contest

random () function which is available in Math library is being used to generate random number from a given range. That range would be the customers' IDs (1 to current customer id)

server side

```

    • app.get('/generateRandom',function(req,res){
      var max = CcurrentId;
      var min = 1;
if(max>=1)
    {
        var randomNumber = Math.floor(Math.random() * (max - min + 1)) + min;
        winner.push({
        randomNumber:randomNumber
        });
        res.send({random:randomNumber});
    }

```

Payment handling

customers can make payments via mobile phone number or credit card. SMS notification will be send if the payment is done via mobile phone number otherwise an email will be sent.

Payment using credit card – client side

```

    • $('#credit-card-payment').on('submit',function(event){
      event.preventDefault();

      var ccn = $('#ccn');
      var chn = $('#chn');
      var cvc = $('#cvc');
      var email = $('#email');

      $.ajax({
        url:'/cardPayment',
        method:'POST',
        contentType:'application/json',
        data: JSON.stringify({
          ccn : ccn.val(),
          chn : chn.val(),
          cvc : cvc.val(),

```

```

        email : email.val()

    }),
    success:function(response){
        console.log(response);
        if(response=="successfully added!"){
            alert("Success!.email is sent!")
        }
        else {
            alert("check wether all the feilds are filled correctly!");
        }
    }
});
});

```

payment using credit card (server side): - at the server input data will be validated to check whether they are correct.

Example :- credit card number should have 12 numbers

CVC number should have 3 numbers

Email should contain "@" and ".com"

- ```

app.post('/cardPayment',function(req,res){
 var Newccn=req.body.ccn;
 var Newchn=req.body.chn;
 var Newcvc=req.body.cvc;
 var Newemail = req.body.email;
 currentCardPaymentId++;

 var a=0;
 payment.forEach(function(pay,index){
 a=pay.amount;
 });
 cardPayment.push({
 id:currentCardPaymentId,
 ccn:Newccn,
 chn:Newchn,
 cvc:Newcvc,
 amount:a,
 email:Newemail
 });

 if((Newccn!="")&&(Newchn!="")&&(Newcvc!="")&&(Newemail!="")){

```

```

 if(Newccn.match("[0-9]+")&& Newccn.length == 12){
 if(Newcvc.match("[0-9]+") && Newcvc.length==3){

 if(Newemail.includes("@")&&(Newemail.includes(".com"))){
 res.send('successfully added!');
 }
 }
 }
 }
 res.send('not added!');
});

```

#### payment using mobile phone number – client side

- ```

$('#mobile-payment').on('submit',function(event){
    event.preventDefault();

    var mn = $('#mn');
    var pn = $('#pn');

    $.ajax({
        url:'/phonePayment',
        method:'POST',
        contentType:'application/json',
        data: JSON.stringify({
            mn : mn.val(),
            pn : pn.val()

        }),
        success:function(response){
            console.log(response);
            if(response=="successfully added!"){
                alert("Success. SMS is sent")
            }
            else{
                alert("Check wether all the feilds are filled correctly!");
            }
        }
    });
});

```

payment using mobile phone number (server side): - at the server input data will be validated to check whether they are correct.

Example: - mobile phone number should consist with 10 digits
\$ digit pin number

- ```

app.post('/phonePayment',function(req,res){
 var Newmn=req.body.mn;
 var Newpn=req.body.pn;
 currentPhonePayment++;

 var a=0;
 payment.forEach(function(pay,index){
 a=pay.amount;
 });
 phonePayment.push({
 id:currentPhonePayment,
 mn:Newmn,
 pn:Newpn,
 amount:a

 });

 if((Newmn!="")&&(Newpn!="")){
 if(Newmn.match("[0-9]+")&& Newmn.length==10){
 if(Newpn.match("[0-9]+")&& Newpn.length==4){
 res.send('successfully added!');
 }
 }
 }

 res.send('not added!');

});

```

## View Customer Details

Users can view the provided customer details which will be important for administrative purposes.

Ex:- when selecting the random winners from

### Server side

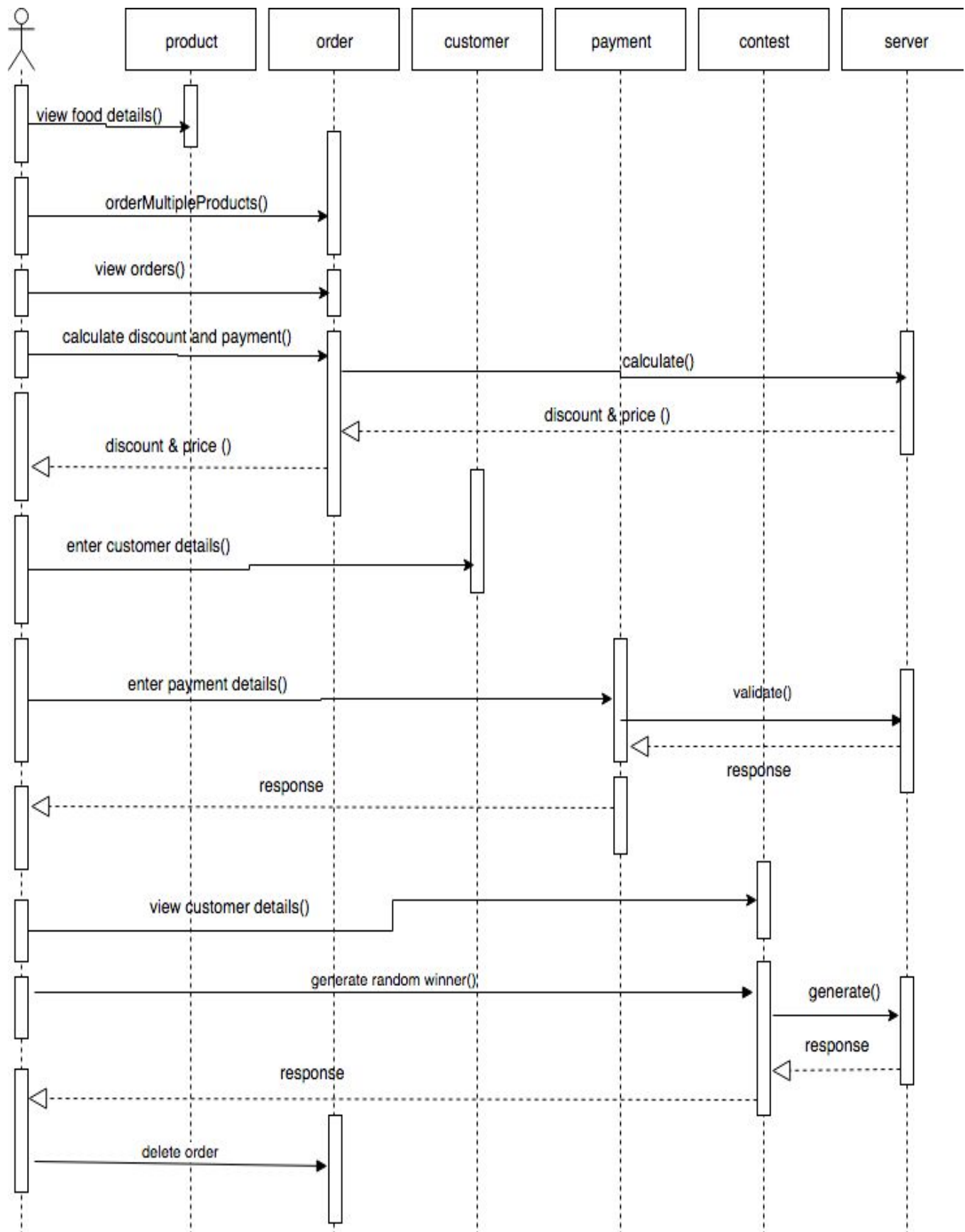
- ```

app.get('/getAllCustomers',function(req,res){
  res.send({customers:customers});

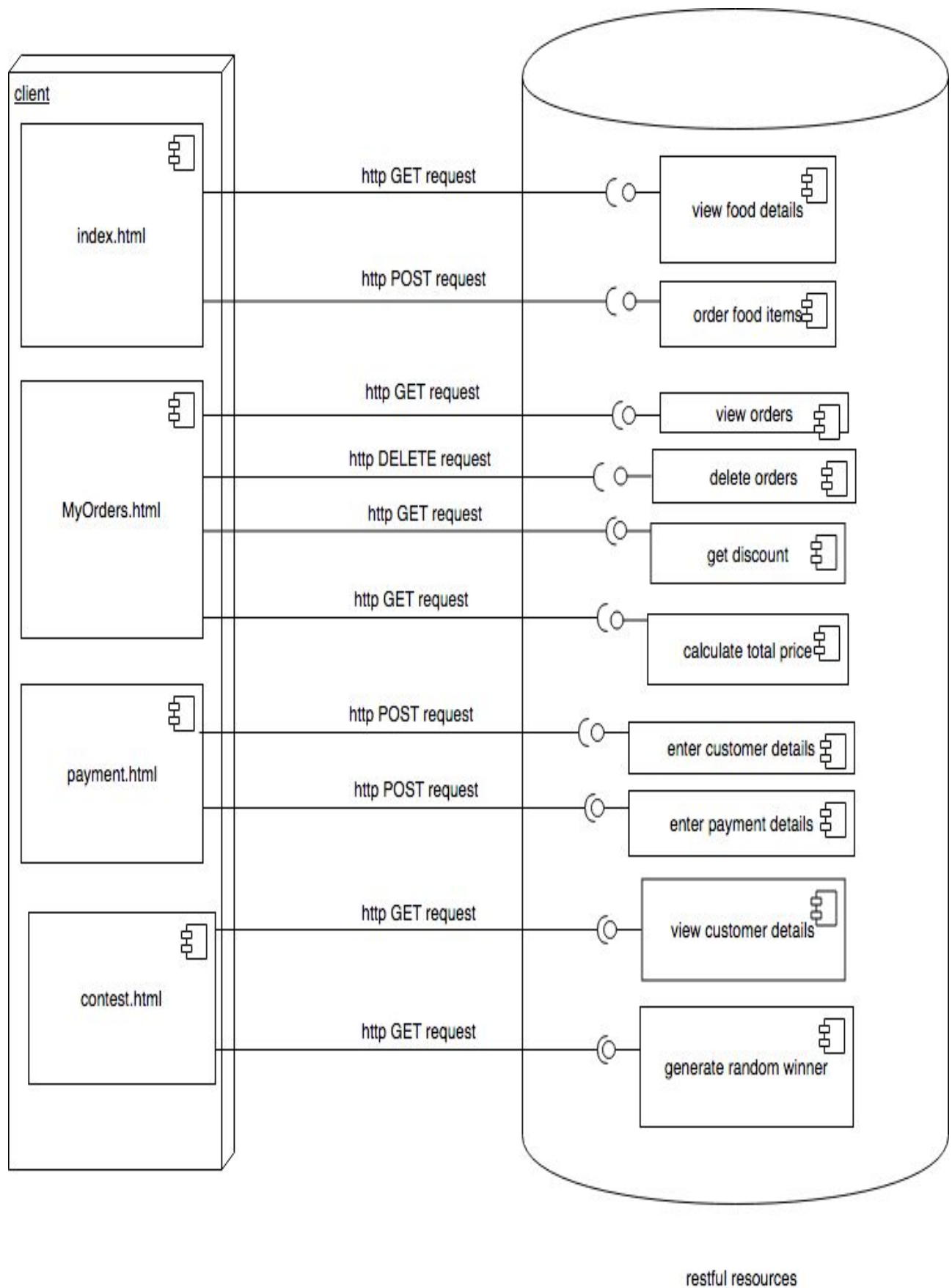
});

```

sequence diagram



component diagram



Appendix

Front end

1.index.html – view food details

```
<!DOCTYPE html>
<html lang="en">

<head>

  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta name="description" content="">
  <meta name="author" content="">

  <title>Food service</title>

  <!-- Bootstrap Core CSS -->
  <link href="../../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

  <!-- MetisMenu CSS -->
  <link href="../../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

  <!-- Custom CSS -->
  <link href="../../dist/css/sb-admin-2.css" rel="stylesheet">

  <!-- Custom Fonts -->
  <link href="../../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet"
type="text/css">

  <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
  <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
  <!--[if lt IE 9]>
    <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
    <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
  <![endif]-->

</head>

<body>

  <div id="wrapper">

    <!-- Navigation -->
```

```

<nav class="navbar navbar-default navbar-static-top" role="navigation" style="margin-
bottom: 0">
  <div class="navbar-header">
    <button type="button" class="navbar-toggle" data-toggle="collapse" data-
target=".navbar-collapse">
      <span class="sr-only">Toggle navigation</span>
      <span class="icon-bar"></span>
      <span class="icon-bar"></span>
      <span class="icon-bar"></span>
    </button>
    <a class="navbar-brand" href="index.html">Food service</a>
  </div>
  <!-- /.navbar-header -->

  <!-- /.navbar-top-links -->

  <div class="navbar-default sidebar" role="navigation">
    <div class="sidebar-nav navbar-collapse">
      <ul class="nav" id="side-menu">
        <li class="sidebar-search">

          <!-- /input-group -->
        </li>
        <li>
          <a href="index.html"><i class="fa fa-dashboard fa-fw"></i>Select Food</a>
        </li>
        <li>
          <a href="myOrders.html"><i class="fa fa-dashboard fa-fw"></i>My
orders</a>
        </li>
        <li>
          <a href="payment.html"><i class="fa fa-dashboard fa-
fw"></i>Payments</a>
        </li>
        <li>
          <a href="contest.html"><i class="fa fa-dashboard fa-fw"></i>Contest</a>
        </li>

      </ul>
    </div>
    <!-- /.sidebar-collapse -->
  </div>
  <!-- /.navbar-static-side -->
</nav>

<div id="page-wrapper">

```



```

<div class="row">
  <div class="col-lg-12">
    <h1 class="page-header">Order Food </h1>
    <button id="getfood-button">Food Details</button>
  </div>
  <!-- /.col-lg-12 -->
</div>

<div class="row">
  <div class="panel panel-default">
    <div class="panel-heading">
      Feel free to select multiple food items
    </div>
    <!-- /.panel-heading -->
    <div class="panel-body">
      <div class="table-responsive">
        <table class="table">
          <thead>
            <tr>
              <th>Food ID</th>
              <th>Food Name</th>
              <th>Price(Rs)</th>
              <th>Quantity</th>
              <th>Click on to buy</th>
            </tr>
          </thead>
          <tbody>

            </tbody>
        </table>
      </div>
      <!-- /.table-responsive -->
    </div>

    </div>

    <!-- /.panel-body -->
  </div>

</div>

<!-- jQuery -->
<script src="../../vendor/jquery/jquery.min.js"></script>

<!-- Bootstrap Core JavaScript -->

```

```

<script src="../../vendor/bootstrap/js/bootstrap.min.js"></script>

<!-- Metis Menu Plugin JavaScript -->
<script src="../../vendor/metisMenu/metisMenu.min.js"></script>

<!-- DataTables JavaScript -->
<script src="../../vendor/datatables/js/jquery.dataTables.min.js"></script>
<script src="../../vendor/datatables-plugins/dataTables.bootstrap.min.js"></script>
<script src="../../vendor/datatables-responsive/dataTables.responsive.js"></script>

<!-- Custom Theme JavaScript -->
<script src="../../dist/js/sb-admin-2.js"></script>

<!-- Page-Level Demo Scripts - Tables - Use for reference -->

<script src="jquery.js"></script>
    <script src="scripts.js"></script>

</body>

</html>

```

2. myOrders.html – page where you can view your orders and calculate the total amount according to the discount

```

<!DOCTYPE html>
<html lang="en">

<head>

    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <meta name="description" content="">
    <meta name="author" content="">

    <title>Food service</title>

    <link href="../../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

```

```
<link href="../../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">
```

```
<link href="../../dist/css/sb-admin-2.css" rel="stylesheet">
<link href="../../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet"
type="text/css">
```

```
<script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
<script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
```

```
</head>
```

```
<body>
```

```
<div id="wrapper">
```

```
<!-- Navigation -->
```

```
<nav class="navbar navbar-default navbar-static-top" role="navigation" style="margin-
bottom: 0">
```

```
<div class="navbar-header">
```

```
<button type="button" class="navbar-toggle" data-toggle="collapse" data-
target=".navbar-collapse">
```

```
<span class="sr-only">Toggle navigation</span>
```

```
<span class="icon-bar"></span>
```

```
<span class="icon-bar"></span>
```

```
<span class="icon-bar"></span>
```

```
</button>
```

```
<a class="navbar-brand" href="index.html">Food service</a>
```

```
</div>
```

```
<!-- /.navbar-header -->
```

```
<!-- /.navbar-top-links -->
```

```
<div class="navbar-default sidebar" role="navigation">
```

```
<div class="sidebar-nav navbar-collapse">
```

```
<ul class="nav" id="side-menu">
```

```
<li class="sidebar-search">
```

```
<!-- /input-group -->
```

```
</li>
```

```
<li>
```

```
<a href="index.html"><i class="fa fa-dashboard fa-fw"></i>Select Food</a>
```

```
</li>
```



```

        <th>Discount(%)</th>
        <th>Loyalty Points</th>
    </tr>
</thead>
<tbody>

    </tbody>
</table>
</div>
<!-- /.table-responsive -->
</div>

<div class="panel-footer">
    <button id="getDiscount-button">View Total Discount (%)</button>
    <span></span>
</div>
<div class="panel-footer">

    <button id="getBill-button">Calculate Total price (Rs.)</button>
    <p></p>
</div>

</div>

</div>
<!-- /.panel-body -->
</div>

</div>

<script src="../../vendor/jquery/jquery.min.js"></script>

<script src="../../vendor/bootstrap/js/bootstrap.min.js"></script>

<script src="../../vendor/metisMenu/metisMenu.min.js"></script>

<script src="../../vendor/datatables/js/jquery.dataTables.min.js"></script>
    <script src="../../vendor/datatables-plugins/dataTables.bootstrap.min.js"></script>
    <script src="../../vendor/datatables-responsive/dataTables.responsive.js"></script>

<script src="../../dist/js/sb-admin-2.js"></script>
    <script src="jquery.js"></script>
    <script src="scripts.js"></script>

</body>

</html>

```

3. payment.html – page where customers can select the payment mechanism and give further details to notify them via email or SMS.

```
<!DOCTYPE html>
<html lang="en">

<head>

  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta name="description" content="">
  <meta name="author" content="">

  <title>Food service</title>

  <!-- Bootstrap Core CSS -->
  <link href="../../vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

  <!-- MetisMenu CSS -->
  <link href="../../vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

  <!-- Custom CSS -->
  <link href="../../dist/css/sb-admin-2.css" rel="stylesheet">

  <!-- Custom Fonts -->
  <link href="../../vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet"
type="text/css">

  <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
  <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
  <!--[if lt IE 9]>
    <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
    <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
  <![endif]-->

</head>

<body>

  <div id="wrapper">

    <!-- Navigation -->
    <nav class="navbar navbar-default navbar-static-top" role="navigation" style="margin-
bottom: 0">
```

```

<div class="navbar-header">
  <button type="button" class="navbar-toggle" data-toggle="collapse" data-
target=".navbar-collapse">
    <span class="sr-only">Toggle navigation</span>
    <span class="icon-bar"></span>
    <span class="icon-bar"></span>
    <span class="icon-bar"></span>
  </button>
  <a class="navbar-brand" href="index.html">Food service</a>
</div>
<!-- /.navbar-header -->

<!-- /.navbar-top-links -->

<div class="navbar-default sidebar" role="navigation">
  <div class="sidebar-nav navbar-collapse">
    <ul class="nav" id="side-menu">
      <li class="sidebar-search">

        <!-- /input-group -->
      </li>
      <li>
        <a href="index.html"><i class="fa fa-dashboard fa-fw"></i>Select Food</a>
      </li>
      <li>
        <a href="myOrders.html"><i class="fa fa-dashboard fa-fw"></i>My
orders</a>
      </li>
      <li>
        <a href="payment.html"><i class="fa fa-dashboard fa-
fw"></i>Payments</a>
      </li>
      <li>
        <a href="contest.html"><i class="fa fa-dashboard fa-fw"></i>Contest</a>
      </li>

    </ul>
  </div>
  <!-- /.sidebar-collapse -->
</div>
<!-- /.navbar-static-side -->
</nav>

<div id="page-wrapper">
  <div class="row">
    <div class="col-lg-12">

```

```

        <h1 class="page-header">Payments</h1>
    </div>
    <!-- /.col-lg-12 -->
</div>
<!-- /.row -->
<div class="row">
    <div class="col-lg-12">
        <div class="panel panel-default">
            <div class="panel-heading">
                Enter Customer Details
            </div>
            <div class="panel-body">
                <div class="row">
                    <div class="col-lg-6">
                        <form role="form" id="form-customer">
                            <div class="form-group">
                                <label>Customer Name </label>
                                <input class="form-control" placeholder="Enter text" id="create-
name">
                                </div>
                                <div class="form-group">
                                    <label>Customer Address </label>
                                    <input class="form-control" placeholder="Enter text" id="create-
address">
                                </div>
                                <div class="form-group">
                                    <label>Customer Username </label>
                                    <input class="form-control" placeholder="Enter text" id="create-
username">
                                </div>
                                <div class="form-group">
                                    <label> Password </label>
                                    <input class="form-control" placeholder="Enter text" id="create-
password">
                                </div>
                                <button type="submit" class="btn btn-default" id="enter-
customer">Add Details</button>
                            </form>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </div>
    <div class="row">
        <div class="panel panel-default">

```



```

<div class="panel-heading">
  Select Payment Method
</div>
<!-- /.panel-heading -->
<div class="panel-body">
  <!-- Nav tabs -->
  <ul class="nav nav-tabs">
    <li class="active"><a href="#home" data-toggle="tab">Credit Card</a>
    </li>
    <li><a href="#profile" data-toggle="tab">Mobile Phone Number</a>
    </li>
  </ul>

  <!-- Tab panes -->
<div class="tab-content">
  <div class="tab-pane fade in active" id="home">
    <div class="panel panel-default">

<div class="panel-body">
  <div class="row">
    <div class="col-lg-6">
      <form role="form" id="credit-card-payment">
        <div class="form-group">
          <label>Credit Card Number</label>
          <input class="form-control" placeholder="Enter text" id="ccn"
disabled>

        </div>
        <div class="form-group">
          <label>Credit Holder's Name</label>
          <input class="form-control" placeholder="Enter text" id="chn"
disabled>

        </div>
        <div class="form-group">
          <label>CVC Number</label>
          <input class="form-control" placeholder="Enter text" id="cvc"
disabled>

        </div>
        <div class="form-group">
          <label>Email</label>
          <input class="form-control" placeholder="Enter text" id="email"
disabled>

        </div>
        <label>Amount</label>
        <button id="get-amount">click to add</button>
        <div class="form-group input-group">

```

```

        <span class="input-group-addon">.00</span>
      </div>
      <button type="submit" class="btn btn-default disabled">Submit
Button</button>
      <button type="reset" class="btn btn-default disabled">Reset
Button</button>
    </form>
  </div>
  <!-- /.col-lg-6 (nested) -->

  <!-- /.col-lg-6 (nested) -->
</div>
<!-- /.row (nested) -->
</div>
<!-- /.panel-body -->
</div>

```

```

</div>
<div class="tab-pane fade" id="profile">

```

```

<div class="panel-body">
  <div class="row">
    <div class="col-lg-6">
      <form role="form" id="mobile-payment">
        <div class="form-group">
          <label>Mobile Number</label>
          <input class="form-control" placeholder="Enter text" id="mn"
disabled>
        </div>
        <div class="form-group">
          <label>4 Digit Pin Number</label>
          <input class="form-control" placeholder="Enter text" id="pn"
disabled>
        </div>
        <label>Amount</label>

```

```

        <button id="get-amount-phone">click to add</button>
        <div class="form-group input-group">

            <span class="input-group-addon">.00</span>
        </div>
        <button type="submit" class="btn btn-default disabled">Submit
Button</button>
        <button type="reset" class="btn btn-default disabled">Reset
Button</button>
        </form>
    </div>
    <!-- /.col-lg-6 (nested) -->

    <!-- /.col-lg-6 (nested) -->
</div>
<!-- /.row (nested) -->
</div>
</div>
</div>
<!-- /.panel-body -->
</div>
</div>

</div>
<!-- /#page-wrapper -->

</div>
<!-- /#wrapper -->

<!-- jQuery -->
<script src="../../vendor/jquery/jquery.min.js"></script>

<!-- Bootstrap Core JavaScript -->
<script src="../../vendor/bootstrap/js/bootstrap.min.js"></script>

<!-- Metis Menu Plugin JavaScript -->
<script src="../../vendor/metisMenu/metisMenu.min.js"></script>

<!-- Custom Theme JavaScript -->
<script src="../../dist/js/sb-admin-2.js"></script>

<script src="jquery.js"></script>
<script src="scripts.js"></script>

</body>

```

```
</html>
```

4. contest.html – Using this page users can view customer details and can generate a random winner

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="utf-8">
```

```
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1">
```

```
  <meta name="description" content="">
```

```
  <meta name="author" content="">
```

```
  <title>Food Service</title>
```

```
  <!-- Bootstrap Core CSS -->
```

```
  <link href="./vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
```

```
  <!-- MetisMenu CSS -->
```

```
  <link href="./vendor/metisMenu/metisMenu.min.css" rel="stylesheet">
```

```
  <!-- Custom CSS -->
```

```
  <link href="./dist/css/sb-admin-2.css" rel="stylesheet">
```

```
  <!-- Custom Fonts -->
```

```
  <link href="./vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet"
```

```
  type="text/css">
```

```
  <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
```

```
  <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
```

```
  <!--[if lt IE 9]>
```

```
    <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
```

```
    <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
```

```
  <![endif]-->
```

```
</head>
```

```
<body>
```

```
  <div class="container">
```

```
    <div class="row">
```

```
      <div class="col-md-4 col-md-offset-4">
```

```
        <div class="login-panel panel panel-default">
```

```
          <div class="panel-heading">
```

```

        <h3 class="panel-title">contest customers</h3>
    </div>
    <div class="panel-body">
        <fieldset>
            <button class="btn btn-lg btn-success btn-block" id="get-
customers">Get Customers</button>
        </fieldset>

        <table class="table">
            <thead>
                <tr>
                    <th>ID</th>
                    <th>Name</th>
                </tr>
            </thead>
            <tbody>

                </tbody>
            </table>

        </div>
        <div class="panel-footer">
            <a href="payment.html">back</a>
            <button id="random">select random </button>
            <span></span>
        </div>
    </div>
</div>
</div>
</div>
</div>

<!-- jQuery -->
<script src="./vendor/jquery/jquery.min.js"></script>

<!-- Bootstrap Core JavaScript -->
<script src="./vendor/bootstrap/js/bootstrap.min.js"></script>

<!-- Metis Menu Plugin JavaScript -->
<script src="./vendor/metisMenu/metisMenu.min.js"></script>

<!-- Custom Theme JavaScript -->
<script src="./dist/js/sb-admin-2.js"></script>

<script src="jquery.js"></script>
<script src="scripts.js"></script>
<script src="login.js"></script>

```

```
</body>
```

```
</html>
```

5. AJAX coding – web client (Scripts.js)

```
//view my orders
```

```
$(function(){
    $('#get-button').on('click',function(){
        $.ajax({
            url:'/Myorders',
            contentType:'application/json',
            success:function (response){
                var tbodyEl = $('tbody');
                tbodyEl.html("");

                response.orders.forEach(function(order) {
                    tbodyEl.append("\
                    <tr class='success'>\
                    <td class='id'>' + order.orderId + '</td>\
                    <td class='name'>' + order.oName + '</td>\
                    <td class='quantity'>' + order.quantity + '</td>\
                    <td class='price'>' + order.oPrice + '</td>\
                    <td class='discount'>' + order.discount + '</td>\
                    <td class='discount'>' + order.loyaltyPoint + '</td>\
                    </tr>\
                    ');
                });
            }
        });
    });
});
```

```
//view food details
```

```
$('#getfood-button').on('click',function(){
    $.ajax({
        url:'/products',
        method:'GET',
        contentType:'application/json',
        success:function (response){
            var tbodyEl = $('tbody');
            tbodyEl.html("");
            response.products.forEach(function(product){
                tbodyEl.append("\
                <tr class='info'>\
```

```

        <td><input type="text" value="" +product.id + "" class="create-input-id"
disabled></td>\
        <td><input type="text" value="" +product.name + "" class="create-input-
name" disabled></td>\
        <td><input type="text" value="" +product.price+ "" class="create-input-price"
disabled></td>\
        <td> <select class="form-
control"><option>1</option><option>2</option><option>3</option><option>4</option><
option>5</option></select>\
        </td>\
        <td><button class="btn btn-primary" >Buy</button>\
        </td>\
    </tr>\
    ');
    });
    }
    });
});

//view customer Details
$('#get-customers').on('click',function(){
    $.ajax({
        url:'/getAllCustomers',
        method:'GET',
        contentType:'application/json',
        success:function (response){
            var tbodyEl = $('#tbody');
            tbodyEl.html("");

            response.customers.forEach(function(customer){
                tbodyEl.append('\
                    <tr class="info">\

<td>'+customer.cid+'</td>\

<td>'+customer.cusName+'</td>\

                    </tr>\
                ');
            });
        }
    });
});

//add to shopping card according to home2.html
$('#table').on('click','.btn-primary',function(){

```

```

var rowEl = $(this).closest('tr');
var createInputId = rowEl.find('.create-input-id').val();
var createInputName = rowEl.find('.create-input-name').val();
var createInputPrice = rowEl.find('.create-input-price').val();
var createInputQuantity = rowEl.find('.form-control').val();

$.ajax({
    url: '/ordersAccHome2',
    method: 'POST',
    contentType: 'application/json',
    data: JSON.stringify({
        quantity : createInputQuantity,
        oName : createInputName,
        oPrice : createInputPrice
    }),
    success: function(response){
        console.log(response);
    }
});

});

//calculate total payment
$('#getBill-button').on('click',function(){
    $.ajax({
        url: '/Mypayment',
        contentType: 'application/json',
        success: function (response){
            console.log(response);
            var para = $('p');
            para.html('');
            para.append('<p>\n'
            + response.totalAmount + '</p>\n'
            + '\n'
            );
        }
    });
});

//get total discount
$('#getDiscount-button').on('click',function(){
    $.ajax({
        url: '/Mydiscount',
        contentType: 'application/json',
        success: function (response){

```



```

        console.log(response);
        var span = $('span');
        span.html("");
        span.append("<span>\n"
+response.totalDiscount + "</span>\n"
        );
    }
});

});

//add customer Details
$('#form-customer').on('submit',function(event){
    event.preventDefault();

    var cusName = $('#create-name');
    var cusAdd = $('#create-address');
    var cusUsername = $('#create-username');
    var cusPassword = $('#create-password');
    var encUn = btoa(cusUsername.val());
    var encPW = btoa(cusPassword.val());

    $.ajax({
        url:'/customers',
        method:'POST',
        contentType:'application/json',
        data: JSON.stringify({
            cusName : cusName.val(),
            cusAdd : cusAdd.val(),
            cusUsername:encUn,
            cusPassword:encPW
        }),
        success:function(response){
            alert(response);
            if(response=="added successfully!")
            {
                alert(response)
                window.location.href =
"http://localhost:3001/payment2.html";
            }
        }
    });

});

```

```

        //delete orders
        $('table').on('click','delete-button',function(){
            var rowEl = $(this).closest('tr');
            var id = rowEl.find('.id').text();

            $.ajax({
                url: '/deleteOrder/' + id,
                method:'DELETE',
                contentType:'application/json',
                success: function(response) {
                    console.log(response);
                    $('#get-button').click();
                }
            });
        });
    });

```

//Add to card payment

```

    $('#credit-card-payment').on('submit',function(event){
        event.preventDefault();

        var ccn = $('#ccn');
        var chn = $('#chn');
        var cvc = $('#cvc');
        var email = $('#email');

        $.ajax({
            url:'/cardPayment',
            method:'POST',
            contentType:'application/json',
            data: JSON.stringify({
                ccn : ccn.val(),
                chn : chn.val(),
                cvc : cvc.val(),
                email : email.val()
            }),
            success:function(response){
                console.log(response);
                if(response=="successfully added!"){
                    alert("Success!.email is sent!")
                }
                else {
                    alert("check wether all the feilds are filled correctly!");
                }
            }
        });
    });

```

```
});

//fill amount text cardPayment
$('#get-amount').on('click',function(){
    $.ajax({
        url:'/cardPayment',
        contentType:'application/json',
        success:function (response){
            console.log(response);
            var span = $('#span');
            span.html("");
            span.append('<span>\n'
            +response.tamount + '</span>\n'
            ,
            );
        }
    });
});
```

```
//Add to mobile phone payment mobile-payment
$('#mobile-payment').on('submit',function(event){
    event.preventDefault();

    var mn = $('#mn');
    var pn = $('#pn');

    $.ajax({
        url:'/phonePayment',
        method:'POST',
        contentType:'application/json',
        data: JSON.stringify({
            mn : mn.val(),
            pn : pn.val()
        }),
        success:function(response){
            console.log(response);
            if(response=="successfully added!"){
                alert("Success. SMS is sent")
            }
            else{
                alert("Check wether all the feilds are filled correctly!");
            }
        }
    });
});
```

```

//fill amount text phonePayment
$('#get-amount-phone').on('click',function(){
$.ajax({
    url:'/phonePayment',
    contentType:'application/json',
    success:function (response){
        console.log(response);
        var span = $('span');
        span.html("");
        span.append("\<span>\
' +response.tamount + '</span>\
,
    );
    }

    });

});

//generate random number to win
$('#random').on('click',function(){
$.ajax({
    url:'/generateRandom',
    method:'GET',
    contentType:'application/json',
    success:function (response){
        console.log(response);

        if(response=="no customers in database!")
        {
            alert(response);
        }
        else {

            var span = $('span');
            span.html("");
            span.append("\<span>\

' +response.random + '</span>\

,

);

        }

    }

});

```

```
});
```

```
});
```

6. server side – (server.js)

```
var express = require('express');
var app = express();
var bodyParser = require('body-parser');
global.atob = require("atob");
```

```
var products = [{
  id:1,
  name:'Apple',
  price:50,
},
{
  id:2,
  name:'Orange',
  price:75
},
{
  id:3,
  name:'Pizza',
  price:1500
},
{
  id:4,
  name:'biscuits',
  price:100
},
{
  id:5,
  name:'Orange',
  price:75
},
{
  id:6,
  name:'noodles',
  price:45
}
];
```

```
var orders = [];
```

```
var payment={
```

```

        amount:""
    });

    var cardPayment=[{
        id:1,
        ccn:"",
        chn:"",
        cvc:"",
        amount:0,
        email:""

    });

    var phonePayment=[{
        id:1,
        mn:"",
        pn:"",
        amount:0
    });

    var customers=[{
        cid:"",
        discount:0,
        cusName:"",
        cusAdd:"",
        cusUsername:"",
        cusPassword:""
    }]

    var login=[{

        username:"user",
        password:"password"
    });
    var winner =[];

    var PcurrentId = 2;
    var OcurrentId= 0;
    var CcurrentId=0;
    var currentCardPaymentId=1;
    var currentPhonePayment=1;
    var currentLoyaltyPoint=0;

    var PORT=process.env.PORT || 3001;
    app.use(express.static(__dirname));
    app.use(bodyParser.json());

```

```

app.get('/Myorders',function(req,res){
    res.send({ orders :orders });
});

//add to shopping cart according home2.html
app.post('/ordersAccHome2',function(req,res){
    var madeOrderQuantity = req.body.quantity;
    var madeOrderName = req.body.oName;
    var madeOrderPrice = req.body.oPrice;
    var discount=0;
    OcurrentId++;
    currentLoyaltyPoint=currentLoyaltyPoint+0.5;
    if(currentLoyaltyPoint==1)
    {
        discount=1;
    }
    else if((currentLoyaltyPoint>1)&&(currentLoyaltyPoint<4))
    {
        discount=2;
    }
    else if(currentLoyaltyPoint>=4)
    {
        discount=3;
    }
    var totalPrice = madeOrderQuantity*madeOrderPrice
    orders.push({
        orderId:OcurrentId,
        oName: madeOrderName,
        quantity:madeOrderQuantity,
        oPrice:totalPrice,
        discount:discount,
        loyaltyPoint:currentLoyaltyPoint
    });

    res.send({orders:orders});

});

//delete orders
app.delete('/deleteOrder/:id',function(req,res){
    var id = req.params.id;
    var found = false;

    orders.forEach(function(order, index) {
        if (!found && order.orderId === Number(id)) {
            orders.splice(index, 1);

```

```

        }
    });
    res.send('Successfully deleted order!');
});

//get customer details
app.get('/getAllCustomers',function(req,res){
    res.send({customers:customers});
});

//add customers befor Payment
app.post('/customers',function(req,res){
    var NewcusName = req.body.cusName;
    var NewcusAdd = req.body.cusAdd;
    var EncNewcusUsername = req.body.cusUsername;
    var EncNewcusPassword = req.body.cusPassword;

    var DecUn = atob(EncNewcusUsername);
    var DecPw = atob(EncNewcusPassword);

    if((NewcusName!="")&&(NewcusAdd!="")&&(EncNewcusUsername!="")&&(EncNewcusPas
sword!=""))
    {
        CcurrentId++;
        customers.push({
            cid:CcurrentId,
            cusName:NewcusName,
            cusAdd : NewcusAdd,
            cusUsername:DecUn,
            cusPassword:DecPw
        });

        res.send('added successfully!');
    }
    res.send('all the feilds must be filled!');
});

//generate random winner
app.get('/generateRandom',function(req,res){
    var max = CcurrentId;
    var min = 1;
    if(max>=1)
    {
        var randomNumber = Math.floor(Math.random() * (max - min + 1)) + min;
        winner.push({
            randomNumber:randomNumber

```



```

    });
    res.send({random:randomNumber});
  }

  else{
    res.send("no customers in database!");
  }

})

app.get('/products',function(req,res){
  res.send({products:products});
});

app.get('/Mypayment',function(req,res){
  var t=0;
  var d=0;
  orders.forEach(function(order,index){
    t=t+order.oPrice;
    d=order.discount;
  });
  var amountAfterDiscount = (t-((t*d)/100));
  payment.push({
    amount:amountAfterDiscount
  });

  res.send({totalAmount:amountAfterDiscount});

});

//calculate discount
app.get('/Mydiscount',function(req,res){
  var d=0;
  orders.forEach(function(order,index){
    d=order.discount;
  });
  customers.push({
    discount:d
  });
  res.send({totalDiscount:d});

});

app.post('/cardPayment',function(req,res){

```

```

var Newccn=req.body.ccn;
var Newchn=req.body.chn;
var Newcvc=req.body.cvc;
var Newemail = req.body.email;
currentCardPaymentId++;

var a=0;
payment.forEach(function(pay,index){
    a=pay.amount;
});
cardPayment.push({
    id:currentCardPaymentId,
    ccn:Newccn,
    chn:Newchn,
    cvc:Newcvc,
    amount:a,
    email:Newemail

});

if((Newccn!="")&&(Newchn!="")&&(Newcvc!="")&&(Newemail!="")){

    if(Newccn.match("[0-9]+")&& Newccn.length == 12){
        if(Newcvc.match("[0-9]+") && Newcvc.length==3){

            if(Newemail.includes("@")&&(Newemail.includes(".com"))){
                res.send('successfully added!');
            }
        }
    }
}
res.send('not added!');

});

app.get('/cardPayment',function(req,res){
    var a=0;
    payment.forEach(function(pay,index){
        a=pay.amount;
    });
    res.send({tamount:a});
});

app.post('/phonePayment',function(req,res){
    var Newmn=req.body.mn;
    var Newpn=req.body.pn;

```

```

currentPhonePayment++;

var a=0;
payment.forEach(function(pay,index){
    a=pay.amount;
});
phonePayment.push({
    id:currentPhonePayment,
    mn:Newmn,
    pn:Newpn,
    amount:a

});

if((Newmn!="")&&(Newpn!="")){
    if(Newmn.match("[0-9]+")&& Newmn.length==10){
        if(Newpn.match("[0-9]+")&& Newpn.length==4){
            res.send('successfully added!');
        }
    }
}

res.send('not added!');

});
app.get('/phonePayment',function(req,res){
    var a=0;
    payment.forEach(function(pay,index){
        a=pay.amount;
    });
    res.send({tamount:a});
});
app.listen(PORT,function(){
    console.log('Server listening on port '+ PORT);
});

```