

CSE1005 SOFTWARE ENGINEERING LABORATORY

ONLINE BILLING SOFTWARE

PREPARED BY

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ONLINE BILLING SOFTWARE

Problem Analysis

Overview of the project:

In the past, most places of business had larger crowds, and customers frequently had to wait up to an hour just to get their money. Even the smallest businesses are adapting to new technologies, and the traditional methods of creating invoices from scratch have been replaced by the "Web based Billing Program," a web-based software that automates the billing and management of a network of department stores.

This project consists of a number of modules, including the register/login, admin, bill management, report generating, and giveaway modules. Customers may read bills, business owners can store or download invoices for new businesses, and firm owners can build up online bill management systems. It is built on a nationwide network of department stores. Additionally, it helps clients create, update, and calculate bills and invoices without having to manually list them.

Why computerized?

The current procedures involve a lot of paperwork and manual labor.

- a. Large amounts of data are challenging to manually manage and preserve.
- b. It's difficult to create reports from the data that's already available.
- c. Time-consuming and involves a lot of paperwork.
- d. lack of data modification capability.

By computerizing

It results in a safe, dependable, quick, and efficient management system for keeping bills/invoices or calculating entire bills. Additionally, it keeps digital records of data that can be stored for a specific amount of time and gives owners simple access to monthly, weekly, or yearly summary reports.

Identification of project scope:

- a. The application is made to keep track of data from a wide range of businesses.
- b. Order confirmation invoices to customer's devices.
- c. Provides an easy billing pattern solution.
- d. Bill/Invoice creation is instantaneous.
- e. On a regular basis, generates report summaries for the owners.
- f. At times, a user-giveaway feature will be planned with a bill /invoice generation.

Task involved:

- Feasibility study:
 - a. Technical Feasibility
 - b. Behavioral Feasibility
 - c. Economic Feasibility
- Risk identification
- Implementation of security system
- Database management system
- Password and login management system **OBJECTIVE:**

The major goal of this project is to generate and handle invoices quickly in order to reduce the amount of paperwork and time required to manually manage vast amounts of data. Customers and business owners gain from this effort. By giving owners summary reports, this program enables the maintenance of all items with their shorthand notations, offering a practical solution to the billing pattern with Secured User Authentication and Validation. Additionally, use the giveaway generator when deals or discounts are offered.

- a. Generating and Managing Invoices in a matter of few seconds.

- b. Maintain all the products with their shorthand notation.
- c. Provides summary reports to the owner monthly or weekly and yearly.
- d. Provides a convenient solution to the billing pattern.
- e. Make an easy to use environment for owners and customers.
- f. Secured User Authentication and Validation.
- g. User Giveaway generator.

1.4 Infrastructure:

S. No.	Tools / Technology needed	Description and uses	Type
1.	HTML5	Appearance of website	Front-end Software
2.	CSS3	Adding style and presentation to the web-pages	Front-end Software
3.	JavaScript	Adding interactive user behavior to web pages	Front-end Software
4.	Bootstrap	front-end framework used for UI	Front-end Software

5.	PHP	Server side programming and interactive with phpMyAdmin	Back-end Software
6.	MySQL	For the purpose of a web database and logging application	Database Software
7.	phpMyAdmin	Management of databases, tables, indexes, permissions	Database Software
8.	Lucid chart	a web-based proprietary platform to collaborate on drawing charts and diagrams	Design Tool Software
9.	Heroku	a container-based cloud Platform as a Service to deploy, manage, scale apps	Cloud Platform Software
10.	Visual Studio Code	a code editor redefined, optimized for building, debugging web apps	Desktop Software
11.	Chrome	a cross-platform web browser	Software
12.	Windows 10	an operating system for building apps	OS

13.	PC / Laptop	Intel based processor-run computer system, which have keyboard and mouse as input devices.	Hardware
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SOFTWARE REQUIREMENT ANALYSIS AND PLANNING

Description of individual phase/module:

User characteristics:

Administrator:

The registered department store owners who have registered using this application can be monitored and contacted by the administrator.

Registered user:

The owner can then choose from the available items, add quantities, and print a bill for the buyer. The cost of a bill submitted on a particular date will be calculated by the online tool. If the owner needs to change the customer's information, they can do so on the Manage Bills page (involving edit, updating, delete details). For every bill paid, the Giveaway generator generates a giveaway for a random number of customers.

General Constraints:

Constant stable internet connection is required for WBS.

Assumptions and Dependencies:

WBS needs a steady, reliable online connection, and irregular updates might cause difficulties and issues when it comes to purchases and credits.

Functional Requirements:

1)Signup/Registration:

Description:

It displays the signup page for creating account.

Input: Store name, e-mail, mobile number., password, gstin/uin **Output:**

It creates account.

2)Login:**Description:**

It displays the login page.

Input: E-mail and password

Output: The homepage displays for the user.

3) Bill generation:**Description:**

It creates bill for the specified products.

Input: Bill number, mode, name, mobile number., address, e-mail, item, code, quantity, price

Output: It generates bill.

4)Product shorthand notations:**Description:**

It displays the page for creating shorthand for the product.

Input: Product code, product name, price

Output: Gives the shorthand representation for the product.

5)Logout:**Description:**

User gets logged out.

Input: Nil

Output: Gets logged out

Identify individual module deliverables 1 Signup

/ Registration Module:

If a client wishes to create an invoice or manage, download, or print a bill, he or she must first register. Unregistered users are unable to do the above tasks.

2 Login Module:

The user logs in to the online application using a valid user id and password that has been successfully validated in order to manage invoices.

3 Bill Generation Module:

Every logged-in user will be able to create and generate invoices, as well as store current bills, print, and download those generated bills.

4 Product shorthand notations Module:

Every product has a shorthand representation of the entire product label. These shorthand notations can be found on user invoices, and users can search for them.

5 Logout Module:

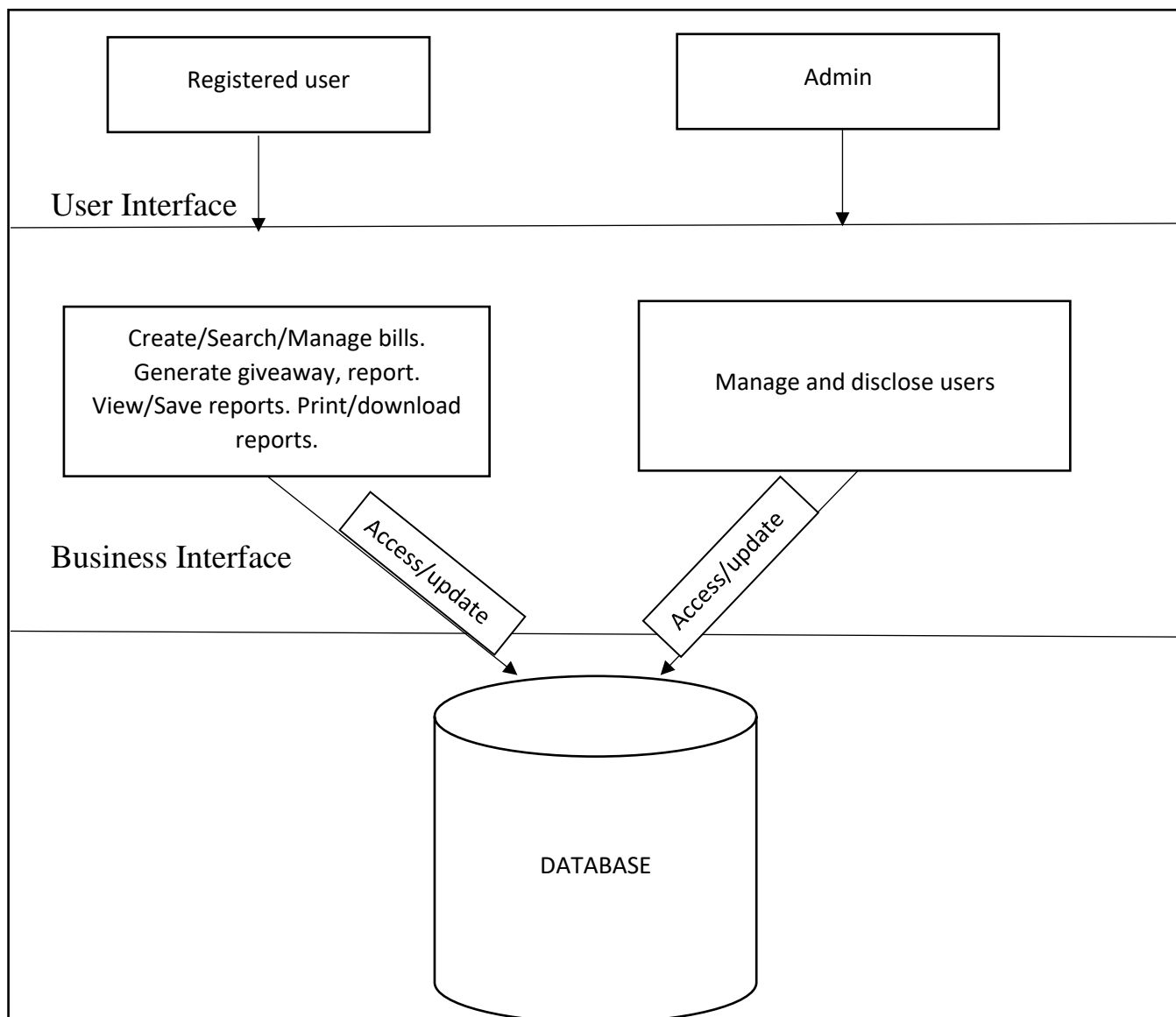
Users can logout after doing the following required processes and all session activities will be preserved in the database.

DATA MODELING

System Architecture Design

A system architecture is the conceptual model that defines the structure, behavior, and more views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviors of the system.

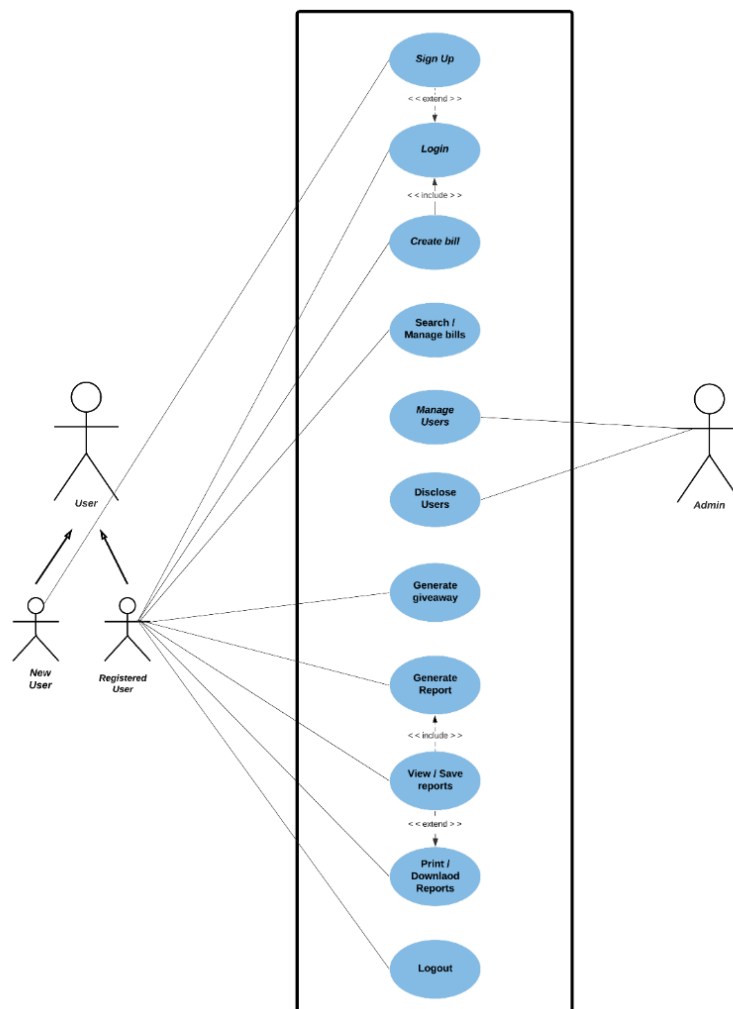
The system Architecture design for the project student mark analysis system.



Use Case Diagram

Use-case diagrams describe the high-level functions and scope of a system. These diagrams also identify the interactions between the system and its actors. The use cases and actors in use-case diagrams describe what the system does and how the actors use it, but not how the system operates internally.

The Use case diagram for the project Online Billing Software.



USE CASE diagram

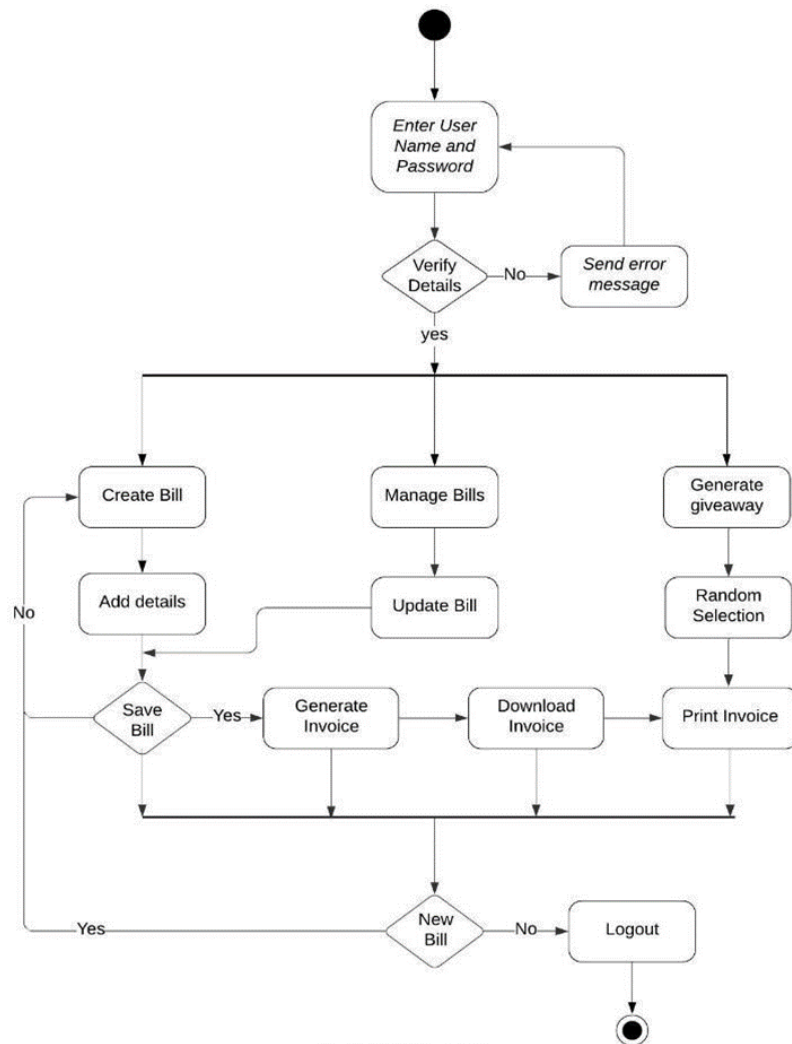
DATA MODELING

Activity Diagram

An activity diagram is a behavioral diagram i.e. it depicts the behavior of a system.

An activity diagram portrays the control flow from a start point to a finish point showing the various decision paths that exist while the activity is being executed.

The Activity diagram for the project Student mark analysis system.



ACTIVITY diagram

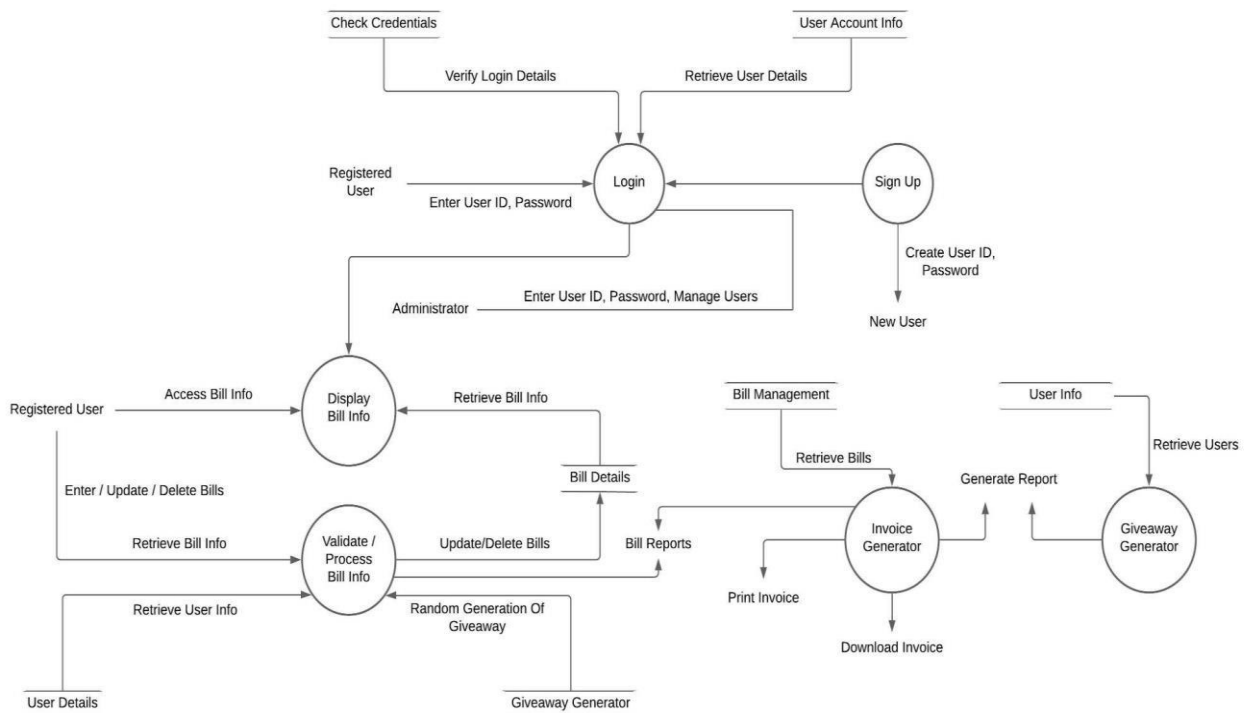
DATA MODELLING:

DFD Diagram:

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled. They can be used to analyze an existing system or model a new one. Like all the best diagrams and charts, a DFD can often visually “say” things that would be hard to explain in words, and they work for both technical and nontechnical audiences, from developer to CEO.

The DFD diagram for online billing software

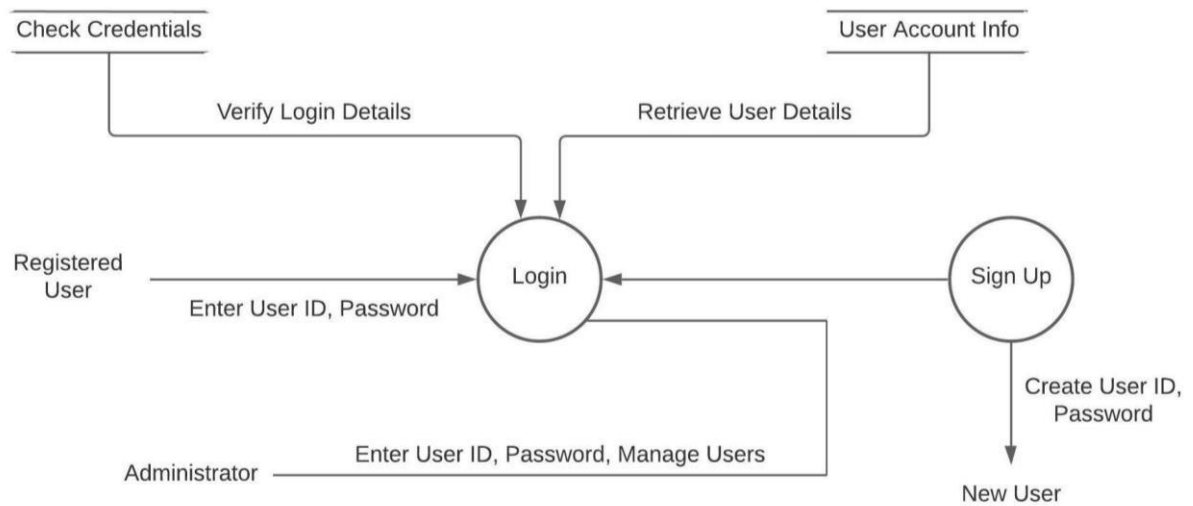
1 Level DFD



First Level Data Flow Diagram

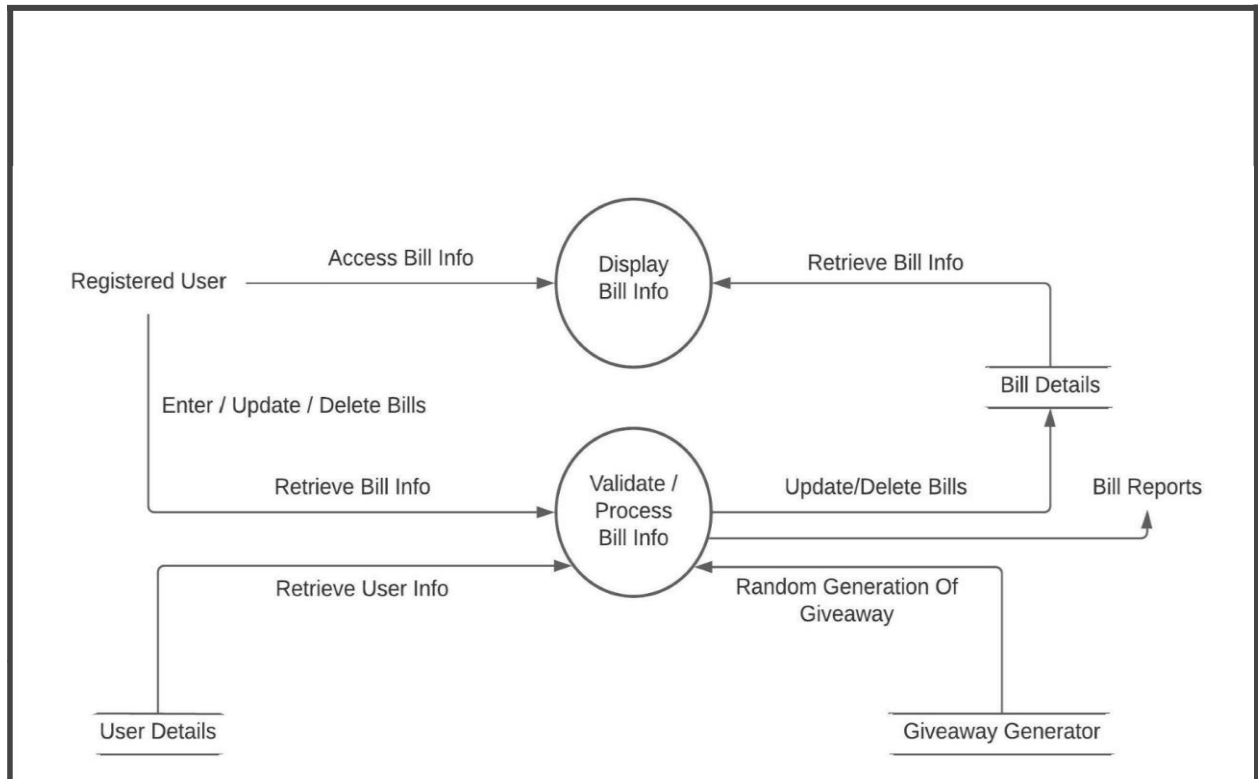
2 Level DFD

1.Login Module

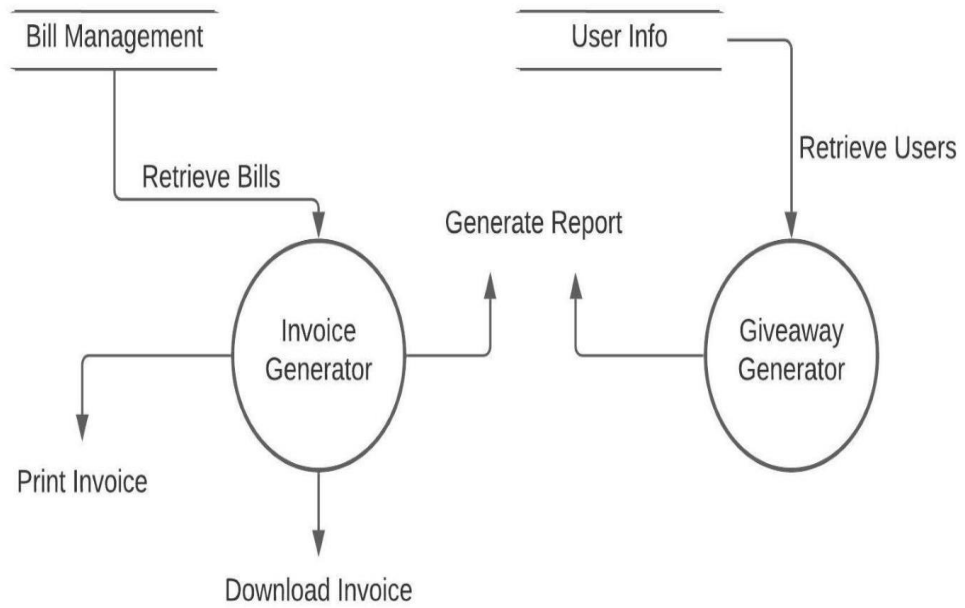


Login Module

2.Bill Management Module



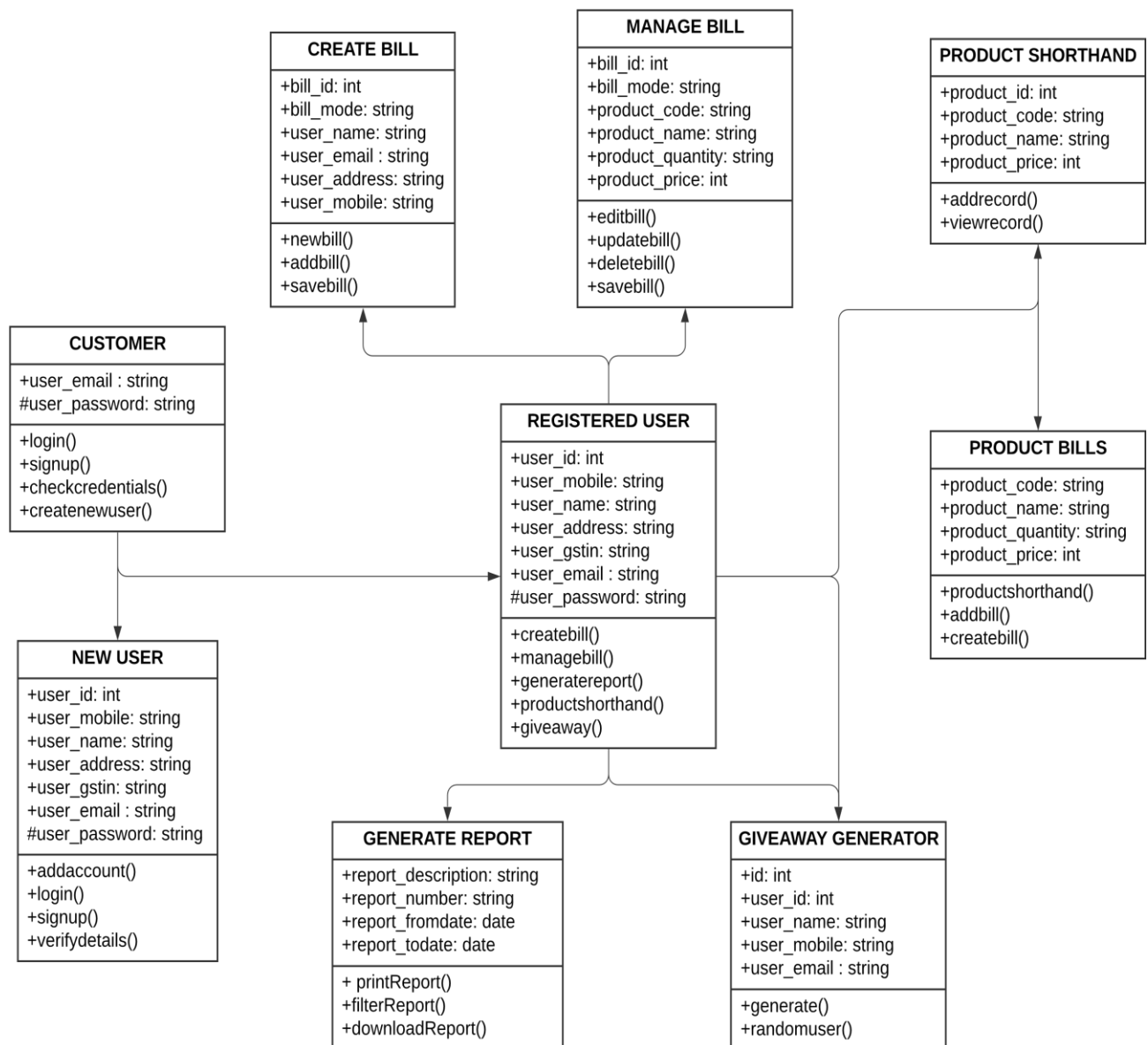
3.Report Generation & Giveaway Module



DATA MODELLING:

Class diagram:

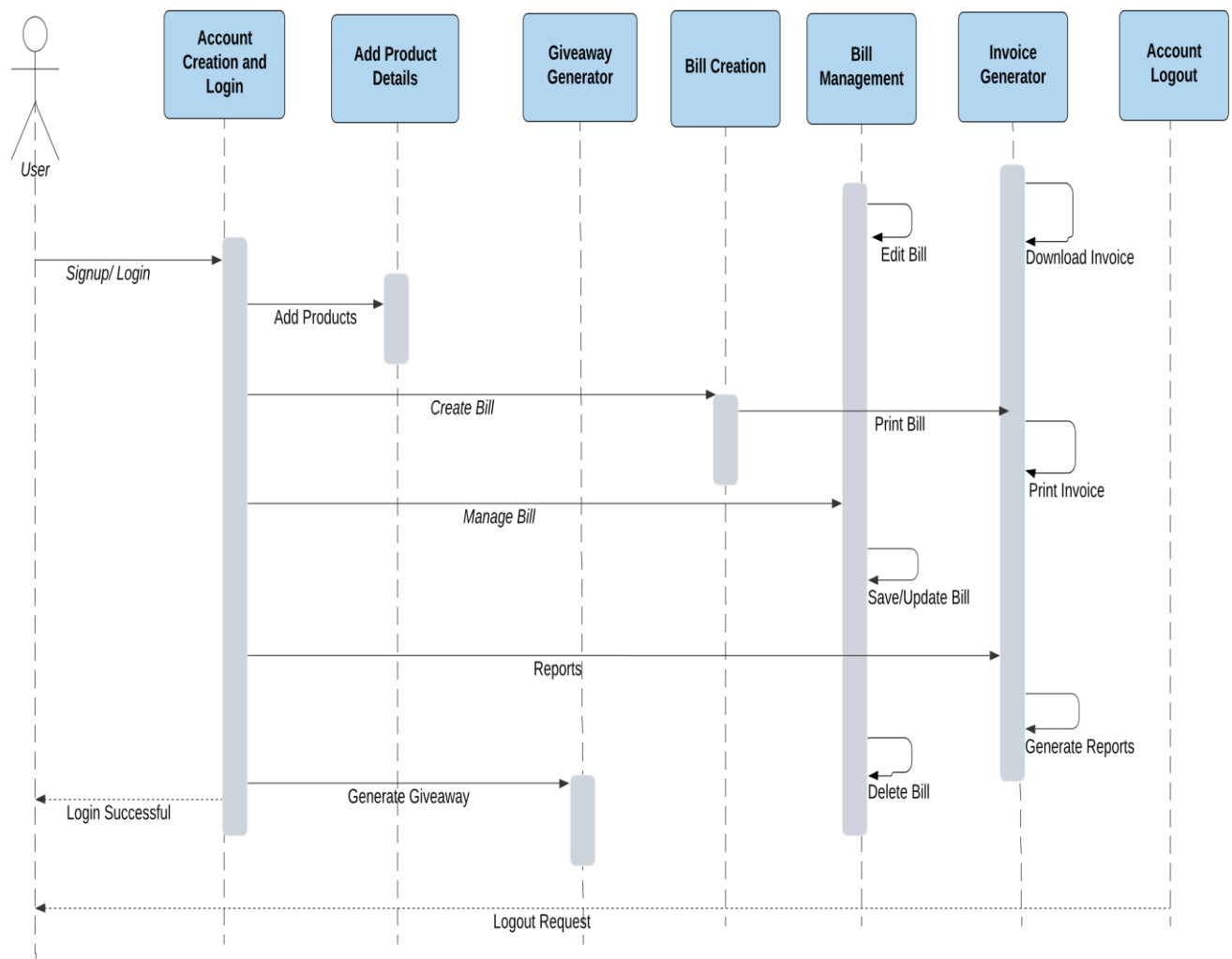
Class diagrams are the blueprints of your system or subsystem. You can use class diagrams to model the objects that make up the system, to display the relationships between the objects, and to describe what those objects do and the services that they provide. Class diagrams are useful in many stages of system design. The class diagram for online billing software



Sequence Diagram:

A sequence diagram is a Unified Modeling Language (UML) diagram that illustrates the sequence of messages between objects in an interaction. A sequence diagram consists of a group of objects that are represented by lifelines, and the messages that they exchange over time during the interaction.

The sequence diagram for online billing software



Sequence Diagram

DEVELOPMENT

Database Structure

Sign Up :

FIELD	DATA TYPE	SIZE	CONSTRAINTS	DESCRIPTION
Email	Varchar2	30	Primary Key	A unique email id given by the user.
Store Name	Varchar2	30	Not Null	Name of the store
Mobile Number	Number	10	Not Null	Shows the mobile no. of the user.
Password	Varchar2	15	Not Null	Password given by the user.
gst	Varchar2	15	Not Null	A unique number is stored.

Login :

FIELD	DATA TYPE	SIZE	CONSTRAINTS	DESCRIPTION
Email_id	Varchar2	30	Primary key	A unique email id that identifies the user.
Password	Varchar2	15	Not Null	Password that allows the user to enter.

User :

FIELD	DATA TYPE	SIZE	CONSTRAINTS	DESCRIPTION
User_id	Number	20	Primary Key	A unique id that identifies the user.
Name	Varchar2	30	Not Null	Shows the name of the user.
Email	Varchar2	30	Not Null	A unique email id given by the user.
Mobile No.	Number	10	Not Null	Shows the mobile no. of the user.
Password	Varchar2	15	Not Null	Password given by the user.
Gst	Varchar2	15	Not Null	A unique number is stored.

Product :

FIELD	DATA TYPE	SIZE	CONSTRAINTS	DESCRIPTION
Product Code	Number	15	Primary Key	Unique code given to a product
Product Name	Varchar2	30	Not Null	Describes the product
Price	Number	20	Not Null	Price of the product

Bills :

FIELD	DATA TYPE	SIZE	CONSTRAINTS	DESCRIPTION
Bill_id	Number	20	Primary key	A unique number given to the bill
Payment Mode	Varchar2	20	Not Null	Mode of the Payment
Customer name	Varchar	20	Not Null	Name of the customer
Customer address	Varchar2	50	Not Null	Address of the customer
Customer Mobile	Number	10	Not Null	Mobile number of the customer
Customer Email	Varchar2	20	Not Null	Email id of the customer
Product code	Number	15	Foreign Key	Unique code given to a product
Product quantity	Number	30	Not Null	Total quantity of the product purchased
Product price	Number	20	Not Null	Calculates the total price
Date	Varchar2	10	Not Null	Date on which bill is issued

DEVELOPMENT

Coding and Implementation

USER SIGN UP

```
signup.php > ...
<form method="post" action="" class="login">
  <header>SIGNUP</header>
  <div class="field">
    <span class="fa fa-user"></span>
    <input type="text" name="name" placeholder="Store Name" required>
  </div>
  <div class="field">
    <span class="fa fa-envelope"></span>
    <input type="email" name="email" placeholder="Email" required>
  </div>
  <div class="field">
    <span class="fa fa-phone"></span>
    <input type="phone" name="mob" placeholder="Mobile No." required>
  </div>
  <div class="field">
    <span class="fa fa-lock"></span>
    <input type="password" name="pass" placeholder="Password" required>
  </div>
  <div class="field">
    <span class="fa fa-vcard-o"></span>
    <input type="text" name="gst" placeholder="GSTIN / UIN" >
  </div>
  <input type="submit" class="submit" name="submit" value="CREATE ACCOUNT">

  <span class="logn-form-copy">Already have an account? <a href="login.php" class="login-form__sign-up">Login</a></span>
</form>
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST")
{
    $name = $_POST['name'];
    $email=$_POST['email'];
    $mobile=$_POST['mob'];
    $pass=$_POST['pass'];
    $gst=$_POST['gst'];
    $query = "SELECT * FROM details WHERE email='$email'";
    $result = mysqli_query($conn, $query)or die(mysqli_error($conn));
    $num = mysqli_num_rows($result);
    if ($num!=0) {
        echo '<script>alert("Email Already exists")</script>';
    }else{
        $sql = "INSERT INTO details(name,email,mobile,password,gst) VALUES ('$name','$email','$mobile','$pass','$gst')";
        $result = mysqli_query($conn, $sql);
        header('location: login.html');
    }
}
```

USER LOGIN

```
login.php > ...
1  <form method="post" action="" class="login">
2      <header>LOGIN</header>
3      <div class="field">
4          <span class="fa fa-user"></span>
5          <input type="email" name="email" placeholder="Email ID">
6      </div>
7      <div class="field">
8          <span class="fa fa-lock"></span>
9          <input type="password" name="pass" placeholder="Password">
10     </div>
11     <div class="forgot-password">
12         <a href="#">Forgot password?</a>
13     </div>
14     <input type="submit" class="submit" value="LOGIN">
15     <span class="logn-form-copy">Don't have an account? <a href="signup.php" class="login-form__sign-up">Sign up</a></span>
16 </form>
17 <?php
18     if ($_SERVER["REQUEST_METHOD"] == "POST")
19     {
20         $email=$_POST['email'];
21         $pass=$_POST['pass'];
22         $query = "SELECT * FROM details WHERE email='$email' AND password='$pass'";
23         $result = mysqli_query($conn, $query) or die(mysqli_error($conn));
24         $num = mysqli_num_rows($result);
25         if ($num==0) {
26             echo '<script>alert("Invalid Credentials")</script>';
27         } else {
28             $row = mysqli_fetch_array($result);
29             $_SESSION['email'] = $row['email'];
30             $_SESSION['user_id'] = $row['id'];
31             $_SESSION['name']=$row['name'];
32             header('location: index.php');
33         }
34     }
35     ?>
```

USER LOGOUT

```
logout.php
1  <?php
2      require("connect.php");
3      session_unset();
4      session_destroy();
5      header('location: login.php');
6  ?>
```

USER OPERATIONS

```
<!-- Vertical navbar -->
<div class="vertical-nav bg-white" id="sidebar">
  <div class="py-4 px-3 mb-4 bg-light">
    <div class="media d-flex align-items-center">
      
      <div class="media-body">
        <h4 class="m-0"><?php echo $_SESSION['name']; ?></h4>
      </div>
    </div>
  </div>
</div>

<ul class="nav flex-column bg-white mb-0">
  <li class="nav-item">
    <a href="index.php" class="nav-link text-dark">
      <i class="fa fa-home mr-3 text-dark fa-fw"></i>
      Home
    </a>
  </li>
</ul>
<br>
```

```
<p class="text-dark font-weight-bold text-uppercase px-3 small pb-4 mb-0">Operations</p>

<ul class="nav flex-column bg-white mb-0">
  <li class="nav-item">
    <a href="createbill.php" class="nav-link text-dark bg-light">
      <i class="fa fa-pencil-square-o mr-3 text-dark fa-fw"></i>
      Create Bill
    </a>
  </li>
  <li class="nav-item">
    <a href="managebill.php" class="nav-link text-dark">
      <i class="fa fa-bar-chart mr-3 text-dark fa-fw"></i>
      Manage Bill
    </a>
  </li>
  <li class="nav-item">
    <a href="generatereport.php" class="nav-link text-dark">
      <i class="fa fa-window-restore mr-3 text-dark fa-fw"></i>
      Generate Report
    </a>
  </li>
  <li class="nav-item">
    <a href="productshorthand.php" class="nav-link text-dark">
      <i class="fa fa-th-list mr-3 text-dark fa-fw"></i>
      Product Shorthand
    </a>
  </li>
  <li class="nav-item">
    <a href="giveawaygenerator.php" class="nav-link text-dark">
      <i class="fa fa-gift mr-3 text-dark fa-fw"></i>
      Giveaway Generator
    </a>
  </li>
</ul>

<div class="mt-5 text-center">
  <button type="button" class="btn btn-dark"><a href="logout.php" style="color:white;text-decoration: none;">Logout</a></button>
```


CREATE BILL

```
<?php
if (isset($_POST['addbill']))
{
    $userid=$_SESSION['user_id'];
    $billid = $_SESSION['billno'];
    $mode=$_POST['mode'];
    $_SESSION['mode']=$mode;

    $cust_name=$_POST['name'];
    $_SESSION['cust_name']=$cust_name;

    $cust_addr=$_POST['addr'];
    $_SESSION['cust_addr']=$cust_addr;

    $cust_mob=$_POST['mob'];
    $_SESSION['cust_mob']=$cust_mob;

    $cust_email=$_POST['email'];
    $_SESSION['cust_email']=$cust_email;

    $prod_code=$_POST['pcode'];
    $prod_quantity=$_POST['quantity'];
    $prod_price=$_POST['price'];
    $query = "INSERT INTO bills(user_id,bill_id,mode,cust_name,cust_addr,cust_mob,cust_email,prod_code,prod_quantity,prod_price) VALUES ('$userid','$billid','$mode','$cust_name','$cust_addr','$cust_mob','$cust_email','$prod_code','$prod_quantity','$prod_price')";
    $result = mysqli_query($conn, $query)or die(mysqli_error($conn));
    echo("<meta http-equiv='refresh' content='1'>");
}

$user=$_SESSION['user_id'];
$sql = "SELECT * FROM bills WHERE user_id='$user' AND bill_id='$val1'";
$result = mysqli_query($conn, $sql);
$sql1="SELECT SUM(prod_quantity*prod_price) AS TOTAL FROM bills WHERE user_id='$user' AND bill_id='$val1'";
$result1=mysqli_query($conn, $sql1);
$row1 = mysqli_fetch_assoc($result1);
echo "<div class='container-fluid'><hr style='border-top: 1px dashed rgb(255, 255, 255);'><center><table class='table'><tr><th>ID</th><th>Item Name</th><th>Quantity</th><th>Price</th><th>Total</th></tr><tbody><tr><td><div class='row'><div class='col-1'><div class='text-center'><div class='font-weight-bold'><div class='font-weight-normal'></div></div></div></td><td><div class='row'><div class='col-1'><div class='text-center'><div class='font-weight-bold'><div class='font-weight-normal'></div></div></div></td><td><div class='row'><div class='col-1'><div class='text-center'><div class='font-weight-bold'><div class='font-weight-normal'></div></div></div></td><td><div class='row'><div class='col-1'><div class='text-center'><div class='font-weight-bold'><div class='font-weight-normal'></div></div></div></td><td><div class='row'><div class='col-1'><div class='text-center'><div class='font-weight-bold'><div class='font-weight-normal'></div></div></div></td></tr><tr><td colspan='5'><div class='row'><div class='col-1'><div class='text-center'><div class='font-weight-bold'><div class='font-weight-normal'></div></div></div></td></tr></tbody></table></center></div>";

$count=1;
while($row = mysqli_fetch_assoc($result))
{
    echo "<tr><td>".$count."</td><td>".$row['prod_code']."</td><td>".$row['prod_quantity']."</td><td>".$row['prod_price']."</td><td>".$row['pr
    $count++;
}
echo "<tr><td></td><td></td><td></td><td></td><td><b>Total: RS ".$row1['TOTAL']."</b></td></tr>";
echo "</table><center></div>";
?>
```

```

$prod_code=$_POST['pcode'];
$prod_quantity=$_POST['quantity'];
$prod_price=$_POST['price'];
$query = "INSERT INTO bills(user_id,bill_id,mode,cust_name,cust_addr,cust_mob,cust_email,prod_code,prod_quantity,prod_price) VALUES ('$userid','$billi
$result = mysqli_query($conn, $query)or die(mysqli_error($conn));
echo("<meta http-equiv='refresh' content='1'>");
}
$user=$_SESSION['user_id'];
$sql = "SELECT * FROM bills WHERE user_id='$user' AND bill_id='$val1'";
$result = mysqli_query($conn, $sql);
$sql1="SELECT SUM(prod_quantity*prod_price) AS TOTAL FROM bills WHERE user_id='$user' AND bill_id='$val1'";
$result1=mysqli_query($conn, $sql1);
$row1 = mysqli_fetch_assoc($result1);
echo "<div class='container-fluid'><hr style='border-top: 1px dashed rgb(255, 255, 255);'><center><table class='table'><tr><th>ID</th><th>Item Name</th>
    $count=1;
    while($row = mysqli_fetch_assoc($result))
    {
        echo "<tr><td>". $count. "</td><td>". $row['prod_code']. "</td><td>". $row['prod_quantity']. "</td><td>". $row['prod_price']. "</td><td>". $row['pr
        $count++;
    }
    echo "<tr><td></td><td></td><td></td><td></td><td></td><b>Total: RS ". $row1['TOTAL']. "</b></td></tr>";
    echo "</table><center></div>";
?>

</div> <br>

<div style="display: flex; justify-content:center" class="text-center">
    <form action="savebill.php" method="POST">
    <button type="submit" name="savebill" class="btn btn-light">Save Bill</button>
    </form>
</div>

```

GENERATE REPORT

```
<?php
$con = mysqli_connect("localhost","root","","billing");

if(isset($_POST['from_date']) && isset($_POST['to_date']))
{
    $from_date = $_POST['from_date'];
    $_SESSION['from_date'] = $_POST['from_date'];
    $to_date = $_POST['to_date'];
    $_SESSION['to_date'] = $_POST['to_date'];
    $sesid=$_SESSION['user_id'];

    $query = "SELECT bill_id, mode, cust_name, cust_mob, prod_quantity, prod_price*prod_quantity AS totalcost FROM
bills WHERE user_id='$sesid' AND date BETWEEN '$from_date' AND '$to_date' GROUP BY cust_mob";
    $query_run = mysqli_query($con, $query);
    $countervar = 1;

    if(mysqli_num_rows($query_run) > 0)
    {
        foreach($query_run as $row)
        {
            <tr>
            <td><?php echo $countervar; ?></td>
            <td><?php echo $row['bill_id']; ?></td>
            <td><?php echo $row['mode']; ?></td>
            <td><?php echo $row['cust_name']; ?></td>
            <td><?php echo $row['cust_mob']; ?></td>
            <td><?php echo $row['prod_quantity']; ?></td>
            <td><?php echo $row['totalcost']; ?></td>
            </tr>
            <?php
            $countervar++;
        }
    }
    else
    {
        echo "<span class='text-white'>". "No Record Found". "</span> <br>";
    }
}
?>
</tbody>
</table> <br>
<div style="display: flex; justify-content:center" class="text-center">
<form action="reportaspdf.php" method="POST">
```

```
reportaspdf.php > ...
1 <?php
2 include 'connect.php';
3 require_once('./tcpdf/tcpdf.php');
4 $obj_pdf = new TCPDF('P', PDF_UNIT, PDF_PAGE_FORMAT, true, 'UTF-8', false);
5 $obj_pdf->SetCreator(PDF_CREATOR);
6 $obj_pdf->SetTitle("YOUR BILL REPORT");
7 $obj_pdf->SetHeaderData('', '', PDF_HEADER_TITLE, PDF_HEADER_STRING);
8 $obj_pdf->setHeaderFont(array(PDF_FONT_NAME_MAIN, '', PDF_FONT_SIZE_MAIN));
9 $obj_pdf->setFooterFont(array(PDF_FONT_NAME_DATA, '', PDF_FONT_SIZE_DATA));
10 $obj_pdf->setDefaultMonospacedFont('helvetica');
11 $obj_pdf->SetFooterMargin(PDF_MARGIN_FOOTER);
12
13 $obj_pdf->SetMargins(PDF_MARGIN_LEFT,'0',PDF_MARGIN_RIGHT);
14 $obj_pdf->setPrintHeader(false);
15 $obj_pdf->setPrintFooter(false);
16 $obj_pdf->SetAutoPageBreak(TRUE, 10);
17 $obj_pdf->SetFont('helvetica', '', 12);
18 $obj_pdf->setPrintHeader(false);
19 $obj_pdf->AddPage();
20
21 $content = "";
22 $content .= "
23 <center><h3>Your Bill Report</h3></center><br><br><br><br>
24 <table class='table text-white table-border'>
25     <thead>
26         <tr>
27             <th>Id</th>
28             <th>Bill Id</th>
29             <th>Mode</th>
30             <th>Name</th>
31             <th>Mobile</th>
32             <th>Quantity</th>
33             <th>Total Cost</th>
34         </tr>
35     </thead>
36     <tbody>";
```


GENERATE GIVEAWAY

```
<div class="form-group row d-flex justify-content-center">
  <div class="btn-toolbar mr-3 ml-4" role="toolbar" aria-label="Toolbar with button groups">
    <div class="btn-group" role="group" aria-label="First group">
      <button type="submit" name="submit" class="btn btn-light"><b>Generate</b></button>
    </div>
  </div>
</div>
</div>
</form>
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST")
{
    $id=$_SESSION['user_id'];
    $n=$_POST['rec'];
    $sql = "SELECT DISTINCT(cust_name),cust_mob,cust_email FROM bills WHERE user_id='$id' ORDER BY RAND() LIMIT ".$n;
    $result = mysqli_query($conn, $sql);
    echo "<div class='container'><center><table class='table'><tr>
    <th>ID</th><th>Name</th><th>Mobile</th><th>Email</th></tr>";
        $count=1;
        while($row = mysqli_fetch_assoc($result))
        {
            echo "<tr><td>". $count."</td><td>". $row['cust_name']."</td><td>". $row['cust_mob'].
            "</td><td>". $row['cust_email']."</td></tr>";
            $count++;
        }
        echo "</table><center></div>";
    }
?>
</div>
```

PRODUCT SHORTHAND

```
<div class="col-sm-5">
  <?php
  $value=$_SESSION['user_id'];
  $sql="SELECT * FROM products WHERE user_id='$value'";
  $result = mysqli_query($conn,$sql);
  $num_rows= mysqli_num_rows($result);
  if ($num_rows>= 1) {
    echo "<center><table class='table'><tr><th>ID</th><th>Code</th><th>Item Name</th><th>Price</th></tr>";
    $count=1;
    while($num_rows!=0)
    {
        $row = mysqli_fetch_assoc($result);
        echo "<tr><td>". $count."</td><td>". $row['code']."</td><td>". $row['prod_name']."</td><td>". $row['price']."</td></tr>";
        $num_rows--;
        $count++;
    }
    echo "</table><center>";
  }else{
    echo "<center><h3>Database is empty!!</h3></center>";
  }
?>
</div>
</div>
</div>
```

RETRIEVE BILLS

```
retrieve.php > ...
1  <?php
2      include 'connect.php';
3      if (!isset($_SESSION['email'])) {
4          header('location: login.php');
5      }
6      if(isset($_GET['codeval'])){
7          $item=$_GET['codeval'];
8          $query = "SELECT prod_name FROM products WHERE user_id=".$_SESSION['user_id']." AND code='$item'";
9          $result = mysqli_query($conn, $query)or die(mysqli_error($conn));
10         while($row = mysqli_fetch_assoc($result))
11         {
12             echo $row['prod_name'];
13         }
14     }
15     if(isset($_GET['priceval'])){
16         $item=$_GET['priceval'];
17         $query = "SELECT price FROM products WHERE user_id=".$_SESSION['user_id']." AND code='$item'";
18         $result = mysqli_query($conn, $query)or die(mysqli_error($conn));
19         while($row = mysqli_fetch_assoc($result))
20         {
21             echo $row['price'];
22         }
23     }
24     ?>
```

CONNECTION PHP CODE

```
connect.php > ...
1  <?php
2  $conn = mysqli_connect("127.0.0.1", "root", "", "billing")or die(mysqli_error($conn));
3  if(!isset($_SESSION))
4  {
5      session_start();
6  }
7  ?>
```

REQUIRED CSS


```
1  body {
2      background-color: #485461;
3      background-image: linear-gradient(315deg, #485461 0%, #28313b 74%);
4      min-height: 100vh;
5      overflow-x: hidden;
6  }
7  .vertical-nav {
8      min-width: 17rem;
9      width: 17rem;
10     height: 100vh;
11     position: fixed;
12     top: 0;
13     left: 0;
14     box-shadow: 3px 3px 10px rgba(0, 0, 0, 0.1);
15     transition: all 0.4s;
16 }
17 .page-content {
18     width: calc(100% - 17rem);
19     margin-left: 17rem;
20     transition: all 0.4s;
21 }
```


```
23 #sidebar.active {
24     margin-left: -17rem;
25 }
26
27 #content.active {
28     width: 100%;
29     margin: 0;
30 }
31
32 .separator {
33     margin: 3rem 0;
34     border-bottom: 1px dashed #fff;
35 }
36
37 .text-uppercase {
38     letter-spacing: 0.1em;
39 }
40 .text-gray {
41     color: #aaa;
42 }
```

OUTPUT SNAPSHOTS

LOGIN

LOGIN

 hydra@gmail.com





Forgot password?

LOGIN


Don't have an account? [Sign up](#)

SIGNUP


 Store Name




 Email



 Mobile No.



 Password




 GSTIN / UIN

CREATE ACCOUNT

Already have an account? [login](#)

CREATE BILL PAGE

 Hydra

Home

OPERATIONS

Create Bill

Manage Bill

Generate Report

Product Shorthand

Giveaway Generator

Logout

MENU

CREATE BILL

NEW BILL

Bill no.164

ModeUPI

NameOLIV Store

AddressVITAP Campus

Mobile No.7846301229

Emailoliv@gmail.com

Code

Item

Quantity

Price

Add

ID	Item Name	Quantity	Price	Amount
1	SILK	5	100	500
2	A70	3	29000	87000
3	PB	2	1000	2000
Total: RS 89500				

REPORT GENERATION PAGE

Home

OPERATIONS

Create Bill

Manage Bill

Generate Report

Product Shorthand

Giveaway Generator

Logout

From Date

01/11/2021

To Date

15/11/2021

Click to Filter

Submit



Id	Bill Id	Mode	Customer Name	Customer Mobile	Quantity	Total Cost
1	150	UPI	Shivaji	6768221479	2	340
2	160	Cash	Sai	7676767676	2	40
3	164	UPI	OLIV Store	7846301229	5	500
4	163	UPI	Nikki	8309908635	2	58000
5	151	UPI	Prasad	8787878787	2	40
6	157	Cash	Gudi	9398589364	5	500
7	156	Cash	Raju	9785463211	4	80
8	154	Cash	Seshank	9898989898	2	40

Print

Download

PDF REPORT GENERATED

YOUR BILL REPORT

1 / 1 | 100% + |  


Thumbnail image of the PDF report

1

Your Bill Report

Id	Bill Id	Mode	Name	Mobile	Quantity	Total Cost
1	150	UPI	Shivaji	6768221479	2	340
2	160	Cash	Sai	7676767676	2	40
3	164	UPI	OLIV Store	7846301229	5	500
4	163	UPI	Nikki	8309908635	2	58000
5	151	UPI	Prasad	8787878787	2	40
6	157	Cash	Gudi	9398589364	5	500
7	156	Cash	Raju	9785463211	4	80
8	154	Cash	Seshank	9898989898	2	40

PRODUCT SHORTHAND PAGE

 Hydra

Home

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Product Shorthand

Giveaway Generator

Logout

MENU

PRODUCT SHORTHAND

Product CodeNCS

Product NameNachos


Product Price30

Add Record

ID	Code	Item Name	Price
1	SILK	Dairy Milk	100
2	A70	Samsung A70	29000
3	PB	Powerbank	1000
4	NCS	Nachos	30

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GIVEAWAY PAGE

 Hydra

Home

OPERATIONS

Create Bill

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Generate Report

Product Shorthand

Giveaway Generator

Logout

MENU

GIVEAWAY GENERATOR

Number of records2


Generate


ID	Name	Mobile	Email
1	Prasad	8787878787	prasad@gmail.com
2	Harshith	8787878787	k@gmail.com

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ADMIN LOGIN PAGE

ADMIN LOGIN

 ID

 Password

LOGIN

ADMIN PAGE

WELCOME ADMIN

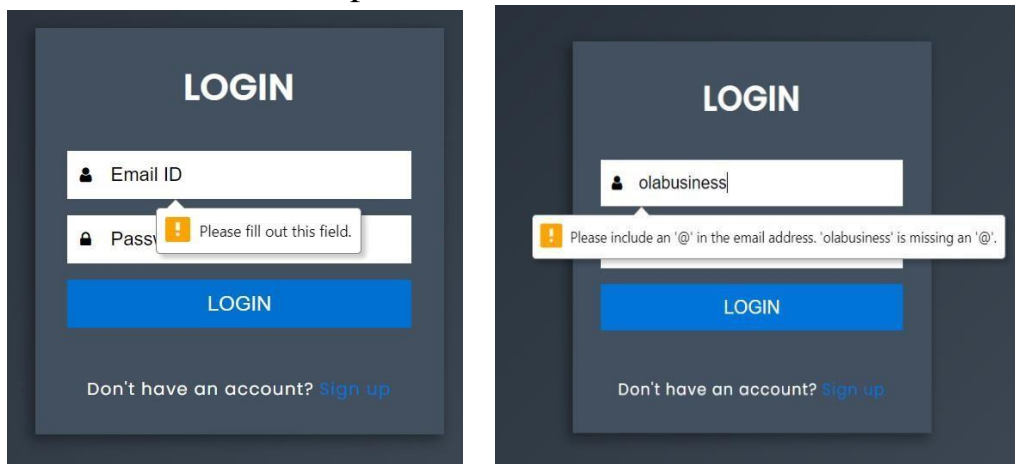
Logout

ID	Name	Mobile	Email	GST Number	Contact
1	Swagath Store	8143320497	kanigalpulaharshith@gmail.com	22AAAAA0000A1Z5	Contact
2	O'LIV STORE	8975461230	oliv@gmail.com	22AAAAA0000A1Z4	Contact

TESTING

Software testing is the process of comparing software to user requirements and system specifications. Testing occurs at the phase level of the software development life cycle or at the module level of the programme code. Validation and verification are components of software testing.

1. Testing Login Page, The user credentials are properly validated. Expected output is matched with actual output.



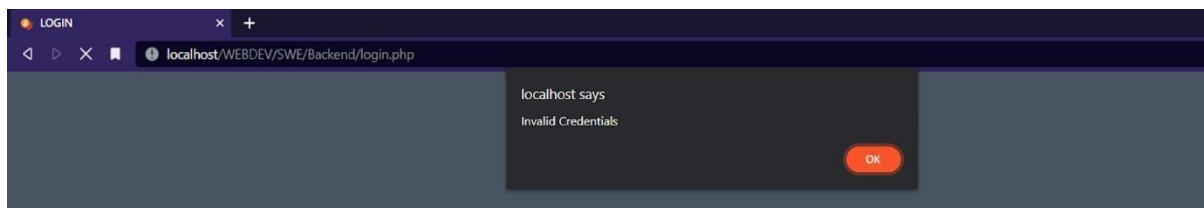
The image shows two side-by-side screenshots of a login page titled "LOGIN". The page has a dark blue background with a white login form. The form contains two input fields: "Email ID" and "Pass". Below the fields is a blue "LOGIN" button. At the bottom, there is a link "Don't have an account? Sign up".

In the left screenshot, the "Email ID" field is empty, and a validation message "Please fill out this field." is displayed above the "Pass" field.

In the right screenshot, the "Email ID" field contains the text "olabusiness". A validation message "Please include an '@' in the email address. 'olabusiness' is missing an '@'." is displayed above the "Pass" field.

Testing Login Page

2. When a user credentials and actual credentials don't match, handling the error and displaying with proper error message.



Invalid Credentials

3. When empty product details are added to the product list, it is not being handled properly. Expected output is not matching with actual output.

Product Code	<input type="text" value="Code"/>
Product Name	<input type="text" value="Name"/>
Product Price	<input type="text" value="Price"/>
<input type="button" value="Add Record"/>	

ID	Code	Item Name	Price
1	SILK	Dairy Milk Silk	100
2	DTLS	Dettol Sanitizer	35
3	BTRS	Cello Batteries	15
4	NCS	Nachos	30
5	PKRFT	Paperkraft A4 Bundle	300
6	SFT	Soft Touch Napkins	170
7	WSTN	Wild Stone Body Spray	210
8	AMZ	Amazon Spice Jars	215
9	CBG	IKEA Carry Bags	70
10	PEN	Cello Pen	5
11	TB	TextBook	200
12	LAP	LAPTOP	250000
13	KRK	Kurkure	20
14			0

Empty Product Details

4. Billing for an empty product details. It is not being handled properly. Expected output is not matching with actual output.

MENU

CREATE BILL

NEW BILL

Bill no.

5

Mode

Cash

Name

random

Address

random

Mobile No.

random

Email

random@gmail.com

Code

Item

Quantity

10

Price

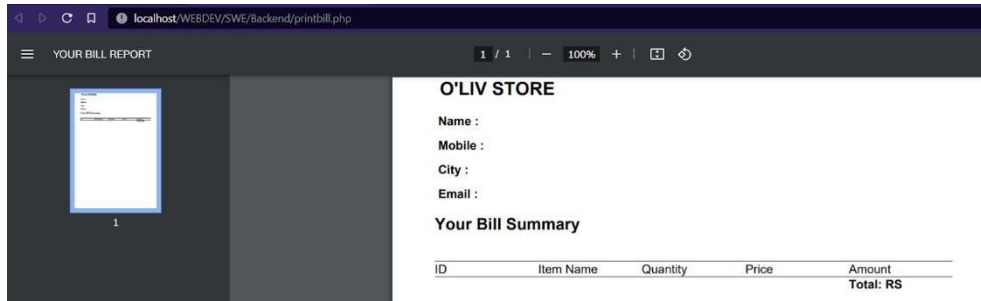
0

Add

ID	Item Name	Quantity	Price	Amount
1		10	0	0

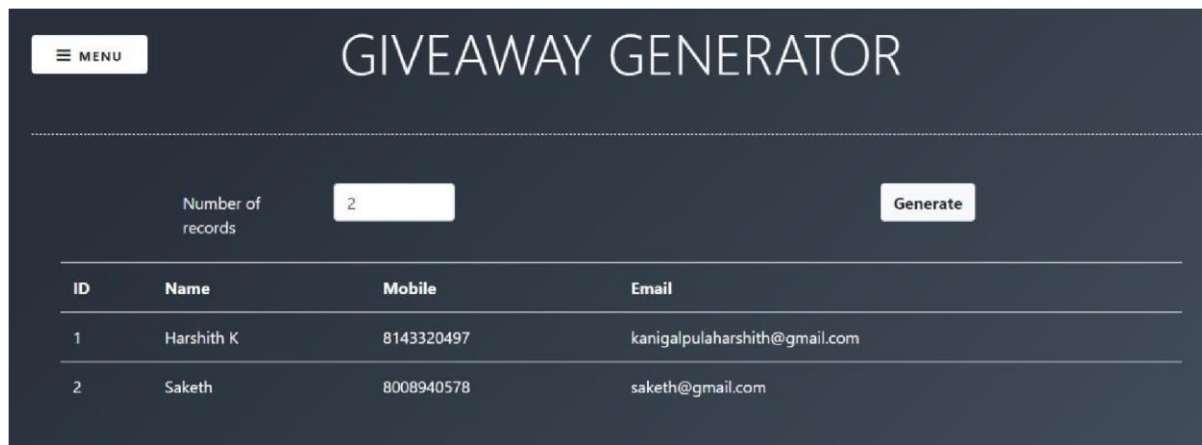
Total: RS 0

Empty Product Details



Empty Bill

5.The list of random user records that is generated for no. of records is accurate. Expected output matches with actual output.



Giveaway generator

6.The list of random user records that is generated for no. of records entered is not validated. Expected output is not matching with actual output.

MENU

GIVEAWAY GENERATOR

Number of records

10

Generate

ID	Name	Mobile	Email
1	Saketh	8008940578	saketh@gmail.com

Giveaway generator

7.A working modal (popup) for Manage bills - Edit button.
Expected Output matches with actual output.

MENU

Id

Bill Id

Mode

Location

Quantity

Total Cost

Edit

Delete

1

2

Cash

ntur

7

185

Edit

Delete

2

4

Cash

nanthapur

6

45

Edit

Delete

3

5

Cash

sdsds

10

0

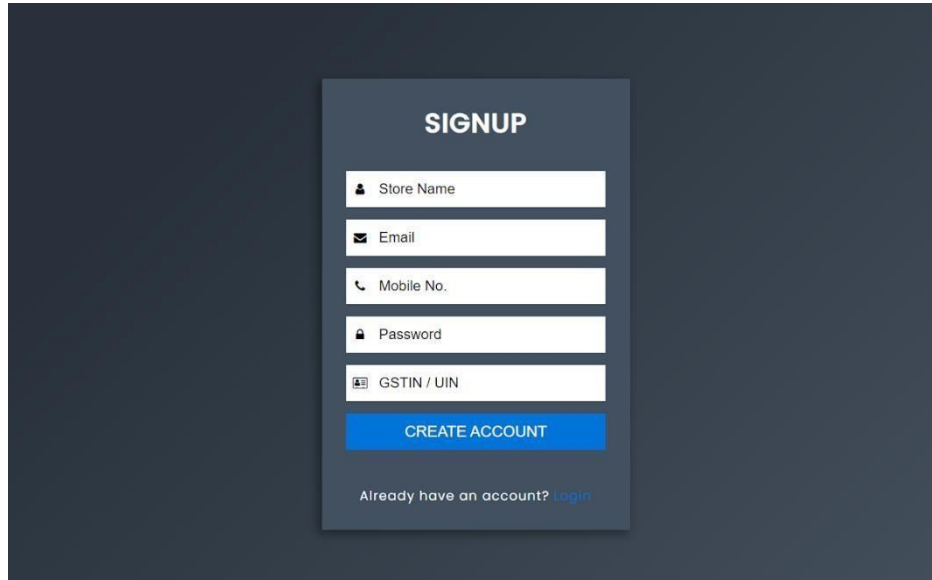
Edit

Delete

Giveaway generator

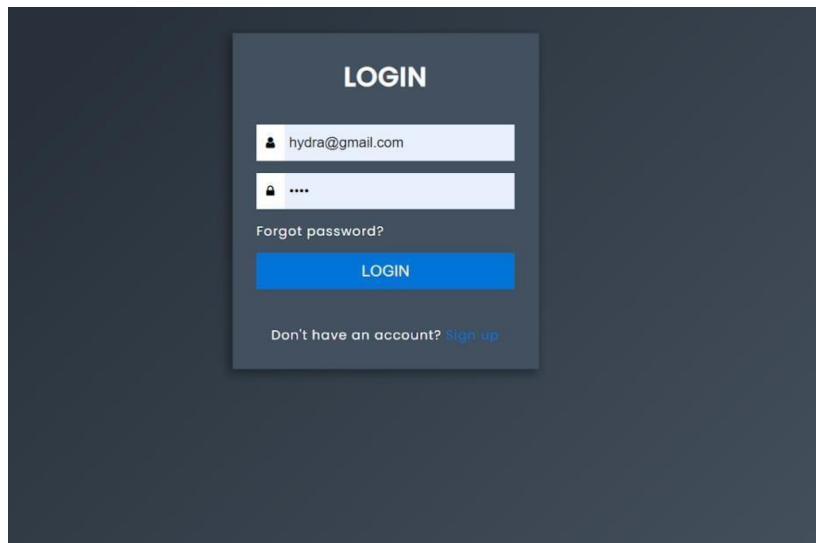
PROJECT DEMO:

Screen shots



A screenshot of a web application's signup page. The page has a dark blue background. In the center, there is a lighter blue rectangular box containing the form. The form is titled "SIGNUP" in white capital letters. Below the title, there are five input fields, each with a small icon to its left: a person icon for "Store Name", an envelope icon for "Email", a telephone icon for "Mobile No.", a lock icon for "Password", and a document icon for "GSTIN / UIN". Below these fields is a blue button with the text "CREATE ACCOUNT" in white. At the bottom of the box, there is a link that says "Already have an account? [login](#)" in white text.

Signup Page



A screenshot of a web application's login page. The page has a dark blue background. In the center, there is a lighter blue rectangular box containing the form. The form is titled "LOGIN" in white capital letters. Below the title, there are two input fields: the first contains the email "hydra@gmail.com" and has a person icon to its left; the second contains four dots "...." and has a lock icon to its left. Below these fields is a link that says "Forgot password?" in white text. Below that is a blue button with the text "LOGIN" in white. At the bottom of the box, there is a link that says "Don't have an account? [sign up](#)" in white text.

Login Page



Home Page

The screenshot shows the 'CREATE BILL' page of the Hydra Web Based Billing Software. It features a sidebar on the left and a main content area with a dark blue header. The main content area contains a form for creating a bill, including fields for Bill no., Mode, Name, Address, Mobile No., and Email. Below the form is a table with columns for ID, Item Name, Quantity, Price, and Amount, containing three rows of data. At the bottom right of the table is the total amount.

Hydra

Home

OPERATIONS

- Create Bill
- Manage Bill
- Generate Report
- Product Shorthand
- Giveaway Generator

Logout

CREATE BILL

+ NEW BILL

Bill no. 164 Mode UPI

Name OLIV Store Address VITAP Campus

Mobile No. 7846301229 Email oliv@gmail.com

Code Item Quantity Price

Add

ID	Item Name	Quantity	Price	Amount
1	SILK	5	100	500
2	A70	3	29000	87000
3	PB	2	1000	2000

Total: RS 89500

Create Bill Page

Home

OPERATIONS

Create Bill

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Giveaway Generator

Logout

From Date

01/11/2021

To Date

15/11/2021

Click to Filter

Submit

Id	Bill Id	Mode	Customer Name	Customer Mobile	Quantity	Total Cost
1	150	UPI	Shivaji	6768221479	2	340
2	160	Cash	Sai	7676767676	2	40
3	164	UPI	OLIV Store	7846301229	5	500
4	163	UPI	Nikki	8309908635	2	58000
5	151	UPI	Prasad	8787878787	2	40
6	157	Cash	Gudi	9398589364	5	500
7	156	Cash	Raju	9785463211	4	80
8	154	Cash	Seshank	9898989898	2	40

Print

Download

Manage Bill Page

YOUR BILL REPORT

1 / 1 | 100% + |

1

1

150

UPI

Shivaji

6768221479

2

340

2

160

Cash

Sai

7676767676

2

40

3

164

UPI

OLIV Store

7846301229

5

500

4

163

UPI

Nikki

8309908635

2

58000

5

151

UPI

Prasad

8787878787

2

40

6

157

Cash

Gudi

9398589364

5

500

7

156

Cash

Raju

9785463211

4

80

8

154

Cash


Seshank

9898989898

2

40

Report Generation Page for Print


Hydra

Home

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Product Shorthand

Giveaway Generator

Logout

MENU

PRODUCT SHORTHAND

Product Code

Product Name


Product Price

Add Record

ID	Code	Item Name	Price
1	SILK	Dairy Milk	100
2	A70	Samsung A70	29000
3	PB	Powerbank	1000
4	NCS	Nachos	30

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Product Short Hand Page


Hydra

Home

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Product Shorthand

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Logout

MENU

GIVEAWAY GENERATOR

From Date


To Date


Click to Filter

Id	Bill Id	Mode	Customer Name	Customer Mobile	Quantity	Total Cost
1	150	UPI	Shivaji	6768221479	2	340
2	160	Cash	Sai	7676767676	2	40
3	164	UPI	OLIV Store	7846301229	5	500
4	163	UPI	Nikki	8309908635	2	58000
5	151	UPI	Prasad	8787878787	2	40
6	157	Cash	Gudi	9398589364	5	500
7	156	Cash	Raju	9785463211	4	80
8	154	Cash	Seshank	9898989898	2	40

Giveaway Generator Page

ADMIN LOGIN

 ID

 Password

LOGIN

Admin Login Page

WELCOME ADMIN						Logout
ID	Name	Mobile	Email	GST Number	Contact	
1	Swagath Store	8143320497	kanigalpulaharshith@gmail.com	22AAAAA0000A1Z5	Contact	
2	O'LIV STORE	8975461230	oliv@gmail.com	22AAAAA0000A1Z4	Contact	

Admin Page