# JAVA INTERNSHIP TASK-2 HOSPITAL MANAGEMENT SYSTEM -JOLIN A

#### **APPOINTMENTSERVLET.JAVA** package

```
hms;
import javax.servlet.*; import
javax.servlet.http.*; import
java.io.IOException; import
java.sql.*;
public class AppointmentServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
      throws ServletException, IOException {
    String patientId =
request.getParameter("patientId");
    String doctor = request.getParameter("doctor");
String date = request.getParameter("date");
    String time = request.getParameter("time");
     try
{
      Class.forName("com.mysql.cj.jdbc.Driver");
Connection conn =
```

```
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
      PreparedStatement ps =
conn.prepareStatement("INSERT INTO
appointments(patient_id, doctor, date, time) VALUES
(?, ?, ?, ?)");
ps.setString(1, patientId);
ps.setString(2, doctor);
ps.setString(3, date);
ps.setString(4, time);
ps.executeUpdate();
conn.close(); } catch
(Exception e) {
      e.printStackTrace();
    }
    response.sendRedirect("appointment.html");
  }
}
```

## **APPOINTMENT.HTML**

```
<!DOCTYPE html>
<html>
<head><title>Schedule Appointment</title>
k rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
<a
href="registration.html"><button>Registration</button
></a>
<a
href="appointment.html"><button>Appointment</butt
on></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a
href="inventory.html"><button>Inventory</button></a
>
<a href="staff.html"><button>Staff</button></a>
```

```
</nav>
<h2>Appointment</h2>
<form action="scheduleAppointment" method="post">
  Patient ID: <input type="text"
name="patientId"><br>
  Doctor Name: <input type="text"
name="doctor"><br>
  Date: <input type="date" name="date"><br>
  Time: <input type="time" name="time"><br>
<input type="submit" value="Schedule">
</form>
</body>
</html>
BILLINGSERVLET.JAVA package
hms;
import javax.servlet.*; import
```

javax.servlet.http.\*; import

```
java.io.IOException; import
java.sql.*;
public class BillingServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
      throws ServletException, IOException {
    String patientId =
request.getParameter("patientId");
    String amount = request.getParameter("amount");
    String service = request.getParameter("service");
     try
{
      Class.forName("com.mysql.cj.jdbc.Driver");
      Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
      PreparedStatement ps =
conn.prepareStatement("INSERT INTO
billing(patient id, service, amount) VALUES (?, ?, ?)");
ps.setString(1, patientId);
                                ps.setString(2,
```

```
service);
              ps.setString(3, amount);
ps.executeUpdate();
      conn.close();
catch (Exception e) {
      e.printStackTrace();
    }
    response.sendRedirect("billing.html");
  }
}
BILLING.HTML
<!DOCTYPE html>
<html>
<head><title>Billing</title>
k rel="stylesheet" type="text/css" href="style.css">
</head>
```

<body>

<nav>

<a

```
href="registration.html"><button>Registration</button
></a>
<a
href="appointment.html"><button>Appointment</butt
on></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a
href="inventory.html"><button>Inventory</button></a
>
<a href="staff.html"><button>Staff</button></a>
</nav>
<h2>Generate Bill</h2>
<form action="billing" method="post">
  Patient ID: <input type="text"
name="patientId"><br>
  Service: <input type="text" name="service"><br>
  Amount: <input type="text" name="amount"><br>
<input type="submit" value="Submit">
</form>
```

```
</body>
</html>
EHRSERVLET.JAVA package
hms;
import javax.servlet.*; import
javax.servlet.http.*; import
java.io.IOException; import
java.sql.*;
public class EHRServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
      throws ServletException, IOException {
    String patientId =
request.getParameter("patientId");
    String diagnosis =
request.getParameter("diagnosis");
    String treatment =
request.getParameter("treatment");
```

```
try
{
      Class.forName("com.mysql.cj.jdbc.Driver");
Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
      PreparedStatement ps =
conn.prepareStatement("INSERT INTO ehr(patient_id,
diagnosis, treatment) VALUES (?, ?, ?)");
ps.setString(1, patientId); ps.setString(2,
diagnosis); ps.setString(3, treatment);
ps.executeUpdate(); conn.close(); } catch
(Exception e) {
      e.printStackTrace();
    }
    response.sendRedirect("ehr.html");
  }
}
```

#### **EHR.HTML**

<!DOCTYPE html>

```
<html>
<head><title>Electronic Health Record</title>
k rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
<a
href="registration.html"><button>Registration</button
></a>
<a
href="appointment.html"><button>Appointment</butt
on></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a
href="inventory.html"><button>Inventory</button></a
>
<a href="staff.html"><button>Staff</button></a>
</nav>
<h2>Enter Health Record</h2>
```

```
<form action="ehr" method="post">
   Patient ID: <input type="text"
   name="patientId"><br>
    Diagnosis: <input type="text"
   name="diagnosis"><br>
    Treatment: <input type="text"
   name="treatment"><br>
   <input type="submit" value="Save">
   </form>
   </body>
   </html>
```

# INVENTORYSERVLET.JAVA package hms;

import javax.servlet.\*; import
javax.servlet.http.\*; import

java.io.IOException; import

java.sql.\*;

```
public class InventoryServlet extends HttpServlet {
protected void doPost(HttpServletRequest request,
HttpServletResponse response)
      throws ServletException, IOException {
    String itemName =
request.getParameter("itemName");
    String quantity = request.getParameter("quantity");
    try
{
      Class.forName("com.mysql.cj.jdbc.Driver");
      Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
      PreparedStatement ps =
conn.prepareStatement("INSERT INTO
inventory(item name, quantity) VALUES (?, ?)");
ps.setString(1, itemName);
ps.setString(2, quantity);
ps.executeUpdate(); conn.close();
                                           }
catch (Exception e) {
      e.printStackTrace();
    }
```

```
response.sendRedirect("inventory.html");
}
```

#### **INVENTORY.HTML**

```
<!DOCTYPE html>
<html>
<head><title>Inventory</title>
k rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
<a
href="registration.html"><button>Registration</button
></a>
<a
href="appointment.html"><button>Appointment</butt
on></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a> <a
```

```
href="inventory.html"><button>Inventory</button></a
>
<a href="staff.html"><button>Staff</button></a>
</nav>
<h2>Inventory</h2>
<form action="inventory" method="post">
  Item Name: <input type="text"</pre>
name="itemName"><br>
  Quantity: <input type="text" name="quantity"><br>
<input type="submit" value="Update">
</form>
</body>
</html>
```

#### **PATIENTREGISTRATIONSERVLET.JAVA**

package hms;

import javax.servlet.\*; import
javax.servlet.http.\*; import

```
java.io.IOException; import
java.sql.*;
public class PatientRegistrationServlet extends
HttpServlet {
  protected void doPost(HttpServletRequest request,
HttpServletResponse response)
      throws ServletException, IOException {
    String name = request.getParameter("name");
    String dob = request.getParameter("dob");
    String gender = request.getParameter("gender");
    String contact = request.getParameter("contact");
    try
{
      Class.forName("com.mysql.cj.jdbc.Driver");
      Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
      PreparedStatement ps =
conn.prepareStatement("INSERT INTO patients(name,
dob, gender, contact) VALUES (?, ?, ?, ?)");
ps.setString(1, name);
```

```
ps.setString(2, dob);
ps.setString(3, gender);
ps.setString(4, contact);
ps.executeUpdate();
conn.close(); } catch
(Exception e) {
        e.printStackTrace();
    }
    response.sendRedirect("registration.html");
}
```

## **REGISTRATION.HTML**

```
<!DOCTYPE html>
<html>
<head><title>Patient Registration</title>
k rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
```

```
href="registration.html"><button>Registration</button
></a>
<a
href="appointment.html"><button>Appointment</butt
on></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a
href="inventory.html"><button>Inventory</button></a
>
<a href="staff.html"><button>Staff</button></a>
</nav>
<h2>Register Patient</h2>
<form action="registerPatient" method="post">
  Name: <input type="text" name="name"><br>
  DOB: <input type="date" name="dob"><br>
  Gender: <select name="gender">
<option>Male</option><option>Female</option><opti
on>Other</option>
</select><br>
```

<a

```
Contact: <input type="text" name="contact"><br>
<input type="submit" value="Register">
</form>
</body>
</html>
STAFFMANAGMENTSERVLET.JAVA
package hms;
import javax.servlet.*; import
javax.servlet.http.*; import
java.io.IOException; import
java.sql.*;
public class StaffManagementServlet extends
HttpServlet {
  protected void doPost(HttpServletRequest request,
HttpServletResponse response)
      throws ServletException, IOException {
    String name = request.getParameter("name");
```

```
String role = request.getParameter("role");
    String department =
request.getParameter("department");
    try
{
      Class.forName("com.mysql.cj.jdbc.Driver");
      Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:
3306/hms", "root", "root");
      PreparedStatement ps =
conn.prepareStatement("INSERT INTO staff(name, role,
department) VALUES (?, ?, ?)");
                                    ps.setString(1,
name);
             ps.setString(2, role);
ps.setString(3, department);
ps.executeUpdate(); conn.close();
                                          } catch
(Exception e) {
      e.printStackTrace();
    }
    response.sendRedirect("staff.html");
  }
}
```

#### **STAFF.HTML**

```
<!DOCTYPE html>
<html>
<head><title>Staff Management</title>
k rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<nav>
<a
href="registration.html"><button>Registration</button
></a>
<a
href="appointment.html"><button>Appointment</butt
on></a>
<a href="ehr.html"><button>EHR</button></a>
<a href="billing.html"><button>Billing</button></a>
<a
href="inventory.html"><button>Inventory</button></a
>
<a href="staff.html"><button>Staff</button></a>
</nav>
```

```
<h2>Add Staff</h2>
<form action="staff" method="post">
  Name: <input type="text" name="name"><br>
  Role: <input type="text" name="role"><br>
  Department: <input type="text"
name="department"><br>
<input type="submit" value="Add">
</form>
</body>
</html>
STYLE.CSS /*
General Layout */
body {
  font-family: Arial, sans-serif;
background-color: #f4f8fb;
margin: 0; padding: 0;
}
```

```
/* Page Heading */ h2 {
background-color: #0066cc;
color: white; padding:
15px; margin: 0; text-
align: center;
}
/* Form Container */ form {
background-color: white;
                           max-
width: 600px; margin: 30pxauto;
padding: 20px; border:
1pxsolid#ddd; border-radius: 8px;
box-shadow: 0010pxrgba(0,0,0,0.1); }
/* Input Fields */
input[type="text"],
input[type="email"],
input[type="number"],
input[type="date"],
textarea, select {
```

```
width: 100%;
padding: 10px;
margin: 10px020px0;
border: 1pxsolid#ccc;
border-radius: 4px;
}
/* Submit Button */ button,
input[type="submit"] {
background-color: #007bff;
color: white; padding:
10px16px; border: none;
border-radius: 4px; cursor:
pointer; margin-right:
10px;
}
button:hover, input[type="submit"]:hover
{
   background-color: #0056b3;
}
```

```
/* Navigation Bar */ nav {
background-color: #003366;
padding: 10px; text-align:
center;
}
nava {
        text-
decoration: none;
margin: 010px;
}
navbutton { background-
color: #005aab; color:
white; padding: 8px12px;
border: none; border-
radius: 5px;
}
```

```
navbutton:hover { background-
color: #003f7d;
}
/* Table Style (optional for EHR or Inventory view) */
table { border-collapse: collapse;
  width: 100%; margin-
top: 20px;
}
tableth,tabletd {     text-align:
left; padding: 12px;
border-bottom: 1pxsolid#ccc;
}
tableth { background-color:
#0066cc; color: white;
}
```

# **WEB.XML**

<?xml version="1.0" encoding="UTF-8"?>

```
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"</pre>
xmlns:xsi="http://www.w3.org/2001/XMLSchemainstan
ce"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/java
ee
http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd"
version="3.1">
<!-- Patient Registration Servlet -->
<servlet>
<servlet-
name>PatientRegistrationServlet</servletname>
<servlet-
class>hms.PatientRegistrationServlet</servletclass>
</servlet>
<servlet-mapping>
<servlet-
name>PatientRegistrationServlet</servletname>
<url-pattern>/registerPatient</url-pattern>
</servlet-mapping>
```

```
<!-- Appointment Servlet -->
<servlet> <servlet-name>AppointmentServlet/servlet-
name>
<servlet-class>hms.AppointmentServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>AppointmentServlet/servlet-name>
<url-pattern>/scheduleAppointment</url-pattern>
</servlet-mapping>
<!-- EHR Servlet -->
<servlet>
<servlet-name>EHRServlet</servlet-name>
<servlet-class>hms.EHRServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>EHRServlet</servlet-name>
<url-pattern>/ehr</url-pattern>
</servlet-mapping>
```

```
<!-- Billing Servlet -->
<servlet>
<servlet-name>BillingServlet</servlet-name>
<servlet-class>hms.BillingServlet/servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>BillingServlet/servlet-name>
<url-pattern>/billing</url-pattern>
</servlet-mapping>
<!-- Inventory Servlet -->
<servlet>
<servlet-name>InventoryServlet</servlet-name>
<servlet-class>hms.InventoryServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>InventoryServlet</servlet-name>
<url-pattern>/inventory</url-pattern>
</servlet-mapping>
```

```
<!-- Staff Management Servlet -->
<servlet> <servlet-
name>StaffManagementServlet</servletname>
<servlet-
class>hms.StaffManagementServlet</servletclass>
</servlet>
<servlet-mapping>
<servlet-
name>StaffManagementServlet</servletname>
<url-pattern>/staff</url-pattern>
</servlet-mapping>
<!-- Welcome File -->
<welcome-file-list>
<welcome-file>registration.html</welcome-file>
</welcome-file-list>
</web-app>
```

# **CODE FOR DATABASE**

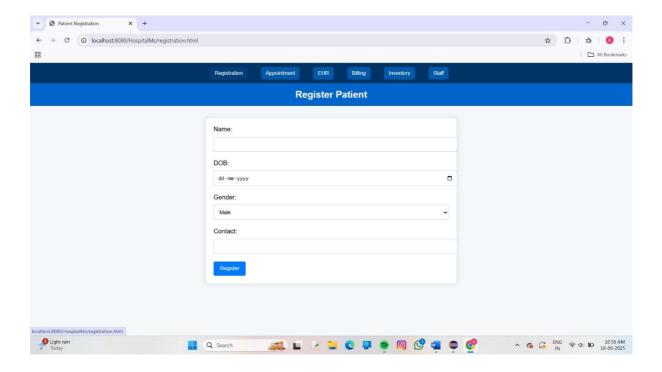
```
CREATE DATABASE IF NOT EXISTS hms;
USE hms;
-- Patients Table
CREATE TABLE IF NOT EXISTS patients (
patient_id INT AUTO_INCREMENT PRIMARY KEY,
name VARCHAR(100) NOT NULL, dob DATE,
gender VARCHAR(10), contact VARCHAR(15),
  registration date TIMESTAMP DEFAULT
CURRENT_TIMESTAMP
);
-- Appointments Table
CREATE TABLE IF NOT EXISTS appointments (
  appointment_id INT AUTO_INCREMENT PRIMARY
KEY,
             patient_id INT,
doctor name VARCHAR(100),
appointment_date
                       DATE.
```

```
TIME,
appointment_time
FOREIGN KEY (patient id)
REFERENCES
patients(patient_id)
);
-- EHR (Electronic Health Records) CREATE
TABLE IF NOT EXISTS ehr ( ehr_id INT
AUTO_INCREMENT PRIMARY KEY,
  patient id INT,
diagnosis
           TEXT,
treatment TEXT,
  record_date TIMESTAMP DEFAULT
CURRENT_TIMESTAMP,
  FOREIGN KEY (patient_id) REFERENCES
patients(patient_id)
);
-- Billing Table
```

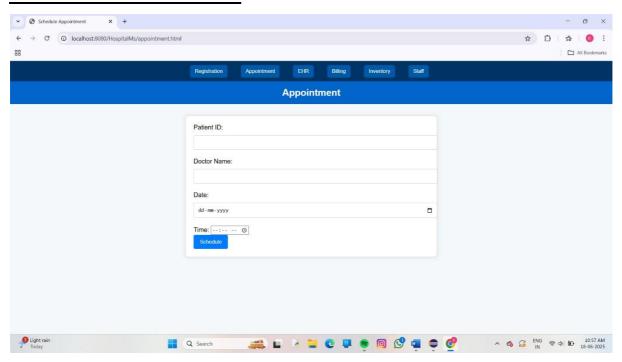
```
CREATE TABLE IF NOT EXISTS billing ( bill_id
INT AUTO INCREMENT PRIMARY KEY,
patient id INT, service VARCHAR(100),
  amount DECIMAL(10,2),
  bill date TIMESTAMP DEFAULT
CURRENT_TIMESTAMP,
  FOREIGN KEY (patient id) REFERENCES
patients(patient_id)
);
-- Inventory Table
CREATE TABLE IF NOT EXISTS inventory (
item id INT AUTO INCREMENT PRIMARY KEY,
item name VARCHAR(100), quantity INT,
  updated_at TIMESTAMP DEFAULT
CURRENT_TIMESTAMP
);
-- Staff Table
```

```
CREATE TABLE IF NOT EXISTS staff ( staff_id INT AUTO_INCREMENT PRIMARY KEY, name VARCHAR(100), role VARCHAR(50), department VARCHAR(100), hire_date TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);
```

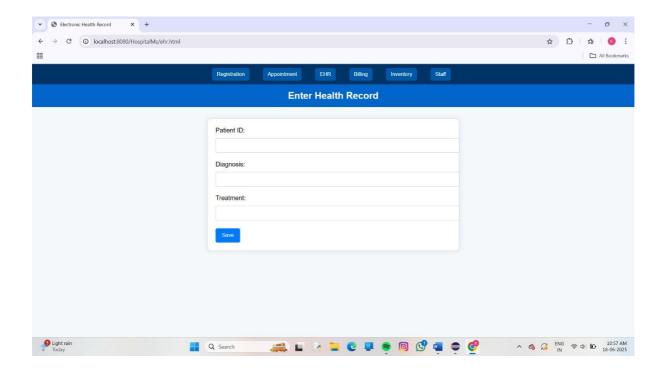
# **OUTPUT REGISTRATION PAGE**



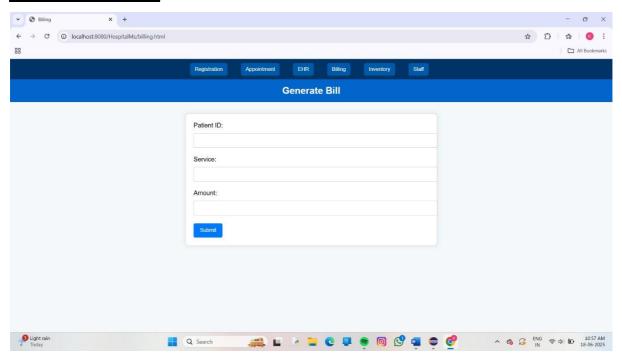
# **APPOINTMENT PAGE**



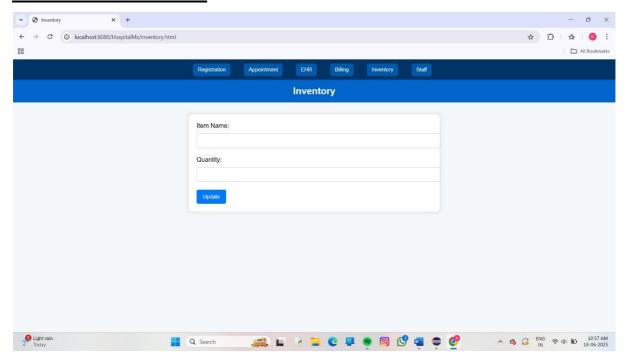
## **EHR PAGE**



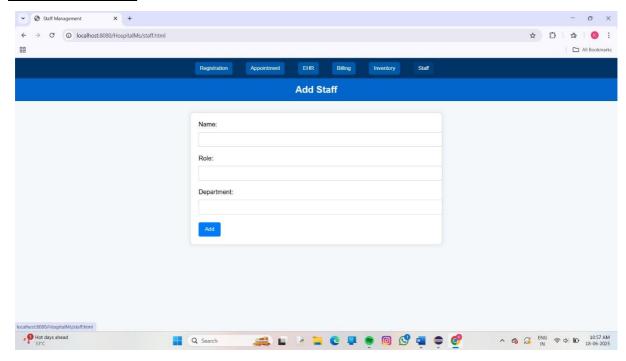
# **BILLING PAGE**



# **INVENTORY PAGE**



#### **STAFF PAGE**



# **DATABASE**

LET US CONSIDER SOMEONE IS BILLING IN THE BILLING PAGE AND IT IS RECORDERED IN THE DATABASE

