**Question-1**

**EmployeeServlet.java**

import javax.servlet.http.\*;

import javax.servlet.\*;

import java.io.\*;

import java.sql.\*;

public class EmployeeServlet extends HttpServlet {

/\*\*

\*

\* @param req

\* @param res

\* @throws ServletException

\* @throws IOException

\*/

@Override

public void doGet(HttpServletRequest req, HttpServletResponse res)

throws ServletException, IOException {

PrintWriter out = res.getWriter();

try{

Class.forName("com.mysql.jdbc.Driver");

Connection con=DriverManager.getConnection("jdbc:mysql://localhost/b4","root","");

res.setContentType("text/html");

String n=req.getParameter("Eno");

//String p=req.getParameter("Pwd");

String query;

query = "select \*from Employee where Emp\_no=?";

PreparedStatement Cstatement = con.prepareStatement(query);

n = n.trim();

//p = p.trim();

//out.println(n+" "+p);

Cstatement.setString(1,n);

//Cstatement.setString(2,p);

ResultSet ms= Cstatement.executeQuery();

//out.println("uname"+ms);

if(ms.next()){

out.println("<html><body>");

out.println("Valid Employee number<br><br>");

out.println("Name:"+ms.getString(1));

out.println("<br><br>Gender:"+ms.getString(3));

out.println("<br><br>Department:"+ms.getString(4));

out.println("</html></body>");

}

else{

out.print("Invalid employee number!");

RequestDispatcher rd=req.getRequestDispatcher("/Login.html");

rd.include(req, res);

}

}

catch(IOException | ClassNotFoundException | SQLException | ServletException e){

out.println("ERROR"+e);

}

}

}

**Employee.html**

<!DOCTYPE html>

<!--

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-->

<html>

<head>

<title>Employee Details:</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="EmployeeServlet">

Employee number: <input type="text" name="Eno" value="" /><br><br>

<!-- Password: <input type="password" name="Pwd" value="" /><br><br>-->

<input type="submit" value="Submit" />

<!-- <button>

<a href="Registration.html"> Resgistration

</a>

</button>-->

</form>

</body>

</html>

**Question-2 :**

**Book.html**

<html>

<head>

<title>Book</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="BookServlet">

ISBN <input type="text" name="isbn" value="" /><br><br>

Title: <input type="text" name="Tle" value="" /><br><br>

Author: <input type="text" name="Auth" value="" /><br><br>

Price: <input type="text" name="Pri" value="" /><br><br>

<input type="submit" value="Submit" />

</form>

</body>

</html>

**BookServlet.java**

import javax.servlet.http.\*;

import javax.servlet.\*;

import java.io.\*;

import java.sql.\*;

public class BookServlet extends HttpServlet {

@Override

public void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException {

PrintWriter out = res.getWriter();

try {

//PrintWriter out = res.getWriter();

Class.forName("com.mysql.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost/b4", "root", "");

//Resultset rs,ms;

res.setContentType("text/html");//setting the content type

// try (PrintWriter pw = res.getWriter() //get the stream to write the data

// ) {

String T1 = req.getParameter("isbn");

String T2 = req.getParameter("Tle");

String T3 = req.getParameter("Auth");

String T4 = req.getParameter("Pri");

String Check = "select \*from Book where ISBN=?";

//ResultSet rs = st.executeQuery("select \*from Student;");

PreparedStatement Cstatement = con.prepareStatement(Check);

Cstatement.setString(1, T1);

ResultSet ms = Cstatement.executeQuery();

out.println("Executed\n");

if (ms.next()) {

out.print("Sorry Book already Exist");

RequestDispatcher rd = req.getRequestDispatcher("/Book.html");

rd.include(req, res);

} else {

{

String query = "insert into Book values(?,?,?,?);";

PreparedStatement pstatement = con.prepareStatement(query);

pstatement.setString(1, T1);

pstatement.setString(2, T2);

pstatement.setString(3, T3);

pstatement.setString(4, T4);

int rs = pstatement.executeUpdate();

out.println("Entered");

}

}

// }

} catch (SQLException | ClassNotFoundException ex) {

// Logger.getLogger(RegistrationServlet.class.getName()).log(Level.SEVERE, null, ex);

out.println("Error");

}

}

}

**Question-3**

**Book.html**

<!DOCTYPE html>

<!--

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-->

<html>

<head>

<title>Employee Details:</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="BookServlet">

ISBN: <input type="text" name="isbn" value="" /><br><br>

<!-- Password: <input type="password" name="Pwd" value="" /><br><br>-->

<input type="submit" value="Submit" />

<!-- <button>

<a href="Registration.html"> Resgistration

</a>

</button>-->

</form>

</body>

</html>

**Home.html**

<!DOCTYPE html>

<!--

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-->

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<div>

<h1>Welcome to JDBC</h1>

<a href="Book.html">Get Details</a>

<a href="Update.html">Update Details</a>

</div>

</body>

</html>

**Update.html**

<html>

<head>

<title>Book</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="UpdateServlet">

ISBN <input type="text" name="isbn" value="" /><br><br>

Title: <input type="text" name="Tle" value="" /><br><br>

Author: <input type="text" name="Auth" value="" /><br><br>

Price: <input type="text" name="Pri" value="" /><br><br>

<input type="submit" value="Submit" />

</form>

</body>

</html>

**BookServlet.java**

import javax.servlet.http.\*;

import javax.servlet.\*;

import java.io.\*;

import java.sql.\*;

public class BookServlet extends HttpServlet {

/\*\*

\*

\* @param req

\* @param res

\* @throws ServletException

\* @throws IOException

\*/

@Override

public void doGet(HttpServletRequest req, HttpServletResponse res)

throws ServletException, IOException {

PrintWriter out = res.getWriter();

try{

Class.forName("com.mysql.jdbc.Driver");

Connection con=DriverManager.getConnection("jdbc:mysql://localhost/b4","root","");

res.setContentType("text/html");

String n=req.getParameter("isbn");

//String p=req.getParameter("Pwd");

String query;

query = "select \*from Book where ISBN=?";

PreparedStatement Cstatement = con.prepareStatement(query);

n = n.trim();

//p = p.trim();

//out.println(n+" "+p);

Cstatement.setString(1,n);

//Cstatement.setString(2,p);

ResultSet ms= Cstatement.executeQuery();

//out.println("uname"+ms);

if(ms.next()){

out.println("<html><body>");

out.println("Valid ISBN number<br><br>");

out.println("Title:"+ms.getString(1));

out.println("<br><br>Author:"+ms.getString(3));

out.println("<br><br>Price:"+ms.getString(4));

out.println("</html></body>");

}

else{

out.print("Invalid ISBN number!");

RequestDispatcher rd=req.getRequestDispatcher("/Login.html");

rd.include(req, res);

}

}

catch(IOException | ClassNotFoundException | SQLException | ServletException e){

out.println("ERROR"+e);

}

}

}

**UpdateServlet.java**

import javax.servlet.http.\*;

import javax.servlet.\*;

import java.io.\*;

import java.sql.\*;

public class UpdateServlet extends HttpServlet {

@Override

public void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException {

PrintWriter out = res.getWriter();

try {

//PrintWriter out = res.getWriter();

Class.forName("com.mysql.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost/b4", "root", "");

//Resultset rs,ms;

res.setContentType("text/html");//setting the content type

// try (PrintWriter pw = res.getWriter() //get the stream to write the data

// ) {

String T1 = req.getParameter("isbn");

String T2 = req.getParameter("Tle");

String T3 = req.getParameter("Auth");

String T4 = req.getParameter("Pri");

String Check = "select \* from Book where ISBN=?";

String Update = "Update Book SET TITLE=?, AUTHOR=?, PRICE=? WHERE ISBN=?";

//ResultSet rs = st.executeQuery("select \*from Student;");

PreparedStatement Cstatement = con.prepareStatement(Check);

Cstatement.setString(1, T1);

ResultSet ms = Cstatement.executeQuery();

if (ms.next()) {

out.print("Book Exists So...Updated:)");

PreparedStatement pstatement = con.prepareStatement(Update);

pstatement.setString(1, T2);

pstatement.setString(2, T3);

pstatement.setString(3, T4

);

pstatement.setString(4, T1);

pstatement.executeUpdate();

RequestDispatcher rd = req.getRequestDispatcher("/Home.html");

rd.include(req, res);

} else {

{

out.print("Sorry Book Doesn't Exists");

}

}

// }

} catch (SQLException | ClassNotFoundException ex) {

// Logger.getLogger(RegistrationServlet.class.getName()).log(Level.SEVERE, null, ex);

out.println("Error");

}

}

}

**Question-4**

**Book.html**

<!DOCTYPE html>

<!--

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-->

<html>

<head>

<title>Employee Details:</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="BookServlet">

Enter Price: <input type="text" name="price" value="" /><br><br>

<!-- Password: <input type="password" name="Pwd" value="" /><br><br>-->

<input type="submit" value="Submit" />

<!-- <button>

<a href="Registration.html"> Resgistration

</a>

</button>-->

</form>

</body>

</html>

**Home.html**

<!DOCTYPE html>

<!--

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and open the template in the editor.

-->

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<div>

<h1>Welcome to Book Records</h1>

<a href="Book.html">Get Price Filtered Records</a>

</div>

</body>

</html>

**BookServlet.java**

import javax.servlet.http.\*;

import javax.servlet.\*;

import java.io.\*;

import java.sql.\*;

public class BookServlet extends HttpServlet {

/\*\*

\*

\* @param req

\* @param res

\* @throws ServletException

\* @throws IOException

\*/

@Override

public void doGet(HttpServletRequest req, HttpServletResponse res)

throws ServletException, IOException {

PrintWriter out = res.getWriter();

try {

Class.forName("com.mysql.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost/b4", "root", "");

res.setContentType("text/html");

String n = req.getParameter("price");

//String p=req.getParameter("Pwd");

String query;

query = "select \* from Book where Price>=?";

PreparedStatement Cstatement = con.prepareStatement(query);

n = n.trim();

//p = p.trim();

//out.println(n+" "+p);

Cstatement.setString(1, n);

//Cstatement.setString(2,p);

ResultSet ms = Cstatement.executeQuery();

//out.println("uname"+ms);

int c = 0;

out.println("<html><body>");

while (ms.next()) {

c = 1;

out.println("Title:" + ms.getString(1));

out.println("<br><br>Author:" + ms.getString(3));

out.println("<br><br>Price:" + ms.getString(4));

out.println("<br><br>");

}

if (c == 0) {

out.print("No Records!");

out.println("</html></body>");

RequestDispatcher rd = req.getRequestDispatcher("/Login.html");

rd.include(req, res);

}

} catch (IOException | ClassNotFoundException | SQLException | ServletException e) {

out.println("ERROR" + e);

}

}

}

**5.Cookies :**

**index.html**

<!DOCTYPE html>

<html>

<head>

<title>Cookies Program</title>

</head>

<body>

<h1>Welcome to Login App by Cookie</h1>

<a href="login.html">Login</a>|

<a href="LogoutServlet">Logout</a>|

<a href="ProfileServlet">Profile</a>

</body>

</html>

**link.html**

<!DOCTYPE html>

<html>

<head>

<title>Servlet Login Example</title>

</head>

<body>

<h1>Welcome to Login App by Cookie</h1>

<a href="login.html">Login</a> |

<a href="LogoutServlet">Logout</a> |

<a href="ProfileServlet">Profile</a>

<hr>

</body>

</html>

**Login.html**

<!DOCTYPE html>

<!--

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and open the template in the editor.

-->

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<div> <form action="LoginServlet" method="post">

Name:<input type="text" name="name"><br>

Password:<input type="password" name="password"><br>

<input type="submit" value="login">

</form> ]

</div>

</body>

</html>

**LoginServlet.java**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class LoginServlet extends HttpServlet {

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out=response.getWriter();

request.getRequestDispatcher("link.html").include(request, response);

String name=request.getParameter("name");

String password=request.getParameter("password");

if(password.equals("admin123")){

out.print("You are successfully logged in!");

out.print("<br>Welcome, "+name);

Cookie ck=new Cookie("name",name);

response.addCookie(ck);

}else{

out.print("sorry, username or password error!");

request.getRequestDispatcher("login.html").include(request, response);

}

out.close();

}

}

**LogoutServlet.java**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class LogoutServlet extends HttpServlet {

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out=response.getWriter();

request.getRequestDispatcher("link.html").include(request, response);

Cookie ck=new Cookie("name","");

ck.setMaxAge(0);

response.addCookie(ck);

out.print("you are successfully logged out!");

}

}

**ProfileServlet.java**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class ProfileServlet extends HttpServlet {

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out=response.getWriter();

request.getRequestDispatcher("link.html").include(request, response);

Cookie ck[]=request.getCookies();

if(ck!=null){

String name=ck[0].getValue();

if(!name.equals("")||name!=null){

out.print("<b>Welcome to Profile</b>");

out.print("<br>Welcome, "+name);

}

}else{

out.print("Please login first");

request.getRequestDispatcher("login.html").include(request, response);

}

out.close();

}

}

**6.URLRewriting :**

**Index.html**

<!DOCTYPE html>

<!--

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and open the template in the editor.

-->

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<div>

<form action="FirstServlet">

Name:<input type="text" name="userName"/><br/>

<input type="submit" value="go"/>

</form>

</div>

</body>

</html>

**FirstServlet.java**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class FirstServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String n=request.getParameter("userName");

out.print("Welcome "+n);

//appending the username in the query string

out.print("<a href='SecondServlet?uname="+n+"'>visit</a>");

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**SecondServlet.java**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SecondServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response){

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//getting value from the query string

String n=request.getParameter("uname");

out.print("Hello "+n);

out.close();

}catch(Exception e){System.out.println(e);}

}

}

**7. HiddenForm :**

**Index.html**

<!DOCTYPE html>

<!--

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and open the template in the editor.

-->

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<div>

<form action="FirstServlet">

Name:<input type="text" name="userName"/><br/>

<input type="submit" value="go"/>

</form>

</div>

</body>

</html>

**FirstServlet.java**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class FirstServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response) {

try {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String n = request.getParameter("userName");

out.print("Welcome " + n);

//creating form that have invisible textfield

out.print("<form action='SecondServlet'>");

out.print("<input type='hidden' name='uname' value='" + n + "'>");

out.print("<input type='submit' value='go'>");

out.print("</form>");

out.close();

} catch (Exception e) {

System.out.println(e);

}

}

}

**SecondServlet.java**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class SecondServlet extends HttpServlet {

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException{

try{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

//Getting the value from the hidden field

String n = request.getParameter("uname");

out.print("Hello " + n);

out.close();

}

catch(Exception e

){System.out.println(e);

}

}

}