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Develop web application of "Online Study".
- o **Registration for new users followed by login.**
- o **Maintain a session for each user.**
- o **Course choice selection page with free courses and paid, based on the selection of course cart must reflect the price.**
- o **Implement required database connection using MVC architecture.**

User table
Create table users(userid Number PRIMARY KEY,
name varchar2(50) NOT NULL,
password varchar2(100) NOT NULL,
email VARCHAR2(100) NOT NULL,
age number,
phone_number number,
education VARCHAR2(20));

select * From users;

Course table

Create table course (courseid Number PRIMARY KEY,cname varchar2(50),duration varchar2(100),price number);

insert into course values(1,'sql','2months',0);
insert into course values(2,'java','1months',0);
insert into course values(3,'Esecurity','1months',0);
insert into course values(4,'asp.net','4months',1000);
insert into course values(5,'nosql','3months',200);
select * from course;
Create table SelectedCourse(courseid Number,userid number,FOREIGN KEY (courseid)
REFERENCES course(courseid),FOREIGN KEY (userid) REFERENCES users(userid));

Login.jsp
```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
```

```
</head>
<body bgcolor='cyan'>

<center>
<h1>Online study</h1>
<h1>Login From</h1>

<form action="LoginValidation">
        User Name: <input type='text' name='uname'><br><br>
Password :<input type='Password' name='Password'><br><br>
<input type='submit' value='Login'>
</form>
<br>
<br>
<a href='Register.jsp'>Register</a>
</center>
</body>
</html>
```

Loginvalidation.java (servlet)

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to
change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Servlet.java to edit this
template
 */
package onlineStudy;

import jakarta.servlet.RequestDispatcher;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;

public class LoginValidation extends HttpServlet {

    @Override
```

```java
    protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws
ServletException, IOException {
    resp.setContentType("text/html");
    PrintWriter out= resp.getWriter();

    String uname = req.getParameter("uname");
    String password = req.getParameter("Password");

    Connection con;
    try
    {


        Class.forName("oracle.jdbc.OracleDriver");
        con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","Darshan");

        String query = "select NAME,PASSWORD FROM users";

        Statement smt= con.createStatement();

        ResultSet rs= smt.executeQuery(query);
        int result =0;

        while(rs.next())
        {
            if(rs.getString("NAME").equals(uname) &&
    rs.getString("PASSWORD").equals(password))
            {
                result=1;
                HttpSession session =req.getSession();
                session.setAttribute("user", uname);
            RequestDispatcher RD = req.getRequestDispatcher("OnlineController");
                RD.forward(req, resp);
                out.println("login done");
            }
        }
        if(result ==0)
        {
            out.println("<b> Sorry, your UserName or password is Incorrect!!");
```

```java
                RequestDispatcher RD = req.getRequestDispatcher("Login.jsp");
                RD.include(req, resp);
            }
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
    }
}
```

Register.jsp

```jsp
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body>
        <body bgcolor='cyan'>

    <center>
        <h1>Online study</h1>
        <h1>Registration From</h1>

        <form action="Registation">

            User Name: <input type='text' name='user'><br><br>
            Email: <input type='text' name='Eamil'><br><br>
            age: <input type='text' name='Age'><br><br>
            Contact number: <input type='text' name='cno'><br><br>
            Education background: <input type='text' name='education'><br><br>
            Password : <input type='Password' name='Pass'><br><br>
            <input type='submit' value='Register'>
        </form>

        <br><br>
        <a href='Login.jsp'>Already hava an account</a>
    </center>
```

```
    </body>
</html>
```

Registration.java(servlet)

```java
package onlineStudy;

import jakarta.servlet.RequestDispatcher;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;

public class Registation extends HttpServlet {

    @Override
    protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws
ServletException, IOException {

    resp.setContentType("text/html");
    PrintWriter out = resp.getWriter();


     Connection con = null;
      int uno=0;
      try
      {
         Class.forName("oracle.jdbc.OracleDriver");
         con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","Vaibhav
ee");

         String Query="Select max(userid) maxnum from users";

         Statement smt = con.createStatement();
         ResultSet rs= smt.executeQuery(Query);

         while(rs.next())
         {
```

```java
            uno = rs.getInt("maxnum");
        }
        rs.close();
        smt.close();
        con.close();
    }
    catch(Exception e)
    {
        System.out.println(e);
    }
    uno++;

    out.println("<html>");
    out.println("<body>");
    String User = req.getParameter("user");
    String age = req.getParameter("Age");
    String Email = req.getParameter("Eamil");
    String Cno = req.getParameter("cno");
    String Edu = req.getParameter("education");
    String password = req.getParameter("Pass");
    try{
        Class.forName("oracle.jdbc.OracleDriver");
        con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","Darshan
");
        Statement stmt = con.createStatement();

        String query = "insert into users values("
            +uno+",'"+ User+ "','"+ password +"','"+Email +"',"+age+ ","+ Cno +",'"+Edu +
"')";

        stmt.executeUpdate(query);
        stmt.close();
        con.close();
        RequestDispatcher RD = req.getRequestDispatcher("Login.jsp");
        RD.forward(req, resp);
    }
    catch(Exception e)
    {
        System.out.println(e);
```

```java
        }
    }
}
```

CourseList.java (java class)

```java
package onlineStudy;
import java.sql.*;
public class CourseList {
   ResultSet getStudList()
   {
    Connection con;

    try
     {
      Class.forName("oracle.jdbc.OracleDriver");
      con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","Darshan");

      String query = "select * from Course order by courseid";

        Statement stmt=con.createStatement();
        ResultSet rs=stmt.executeQuery(query);

        return rs;
     }
    catch(Exception e)
     {
      System.out.println(e);
      return null;
     }
  }
}
```

OnlineController.java(servlet)

```java
package onlineStudy;

import jakarta.servlet.RequestDispatcher;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
```

```java
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;


public class OnlineController extends HttpServlet {

    @Override
    protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws
ServletException, IOException {
        resp.setContentType("text/html");
        PrintWriter out = resp.getWriter();

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


          CourseList s = new CourseList();
          ResultSet rs=s.getStudList();
          req.setAttribute("List", rs);
          RequestDispatcher rd=req.getRequestDispatcher("Course.jsp");
          rd.forward(req, resp);

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


}
```

Course.jsp

```jsp
<%--
    Document   : Course
    Created on : 17-Oct-2023, 12:31:04 PM
    Author     : NIRALI
--%>
<%@page import="java.sql.*"  %>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
```

```html
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body bgcolor='cyan' >

<%
ResultSet rs=(ResultSet)request.getAttribute("List");
%>
<center>
Welcome <%=(String)session.getAttribute("user")%>



<table border="0" align='center'>
<tr>
<th>Course List</th>
</tr>
</table>
<table border="1" align='center'>
<tr>
<th>Course name</th>
<th>Course duration</th>
<th>Course Price</th>
</tr>

<%
while(rs.next())
{
%>

<tr>
<td> <%=rs.getString("cname") %> </td>
<td> <%=rs.getString("duration") %> </td>
<td> <%=rs.getString("price") %> </td>

<td>  <a href='addCourse?id=<%= rs.getInt("courseid") %>'>Add to cart</a></td>
</tr>
<%
}
%>
```

```html
    </table>
    <form action="SelectedCoureses" >
       <input type="submit" value="submit" />
    </form>
  </center>
  </body>
</html>
```

addCourse.java(servlet)

```java
package onlineStudy;

import jakarta.servlet.RequestDispatcher;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;

public class addCourse extends HttpServlet {

  @Override
  protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws
ServletException, IOException {
     HttpSession session = req.getSession();
     String user =(String)session.getAttribute("user");
     resp.setContentType("text/html");
    PrintWriter out = resp.getWriter();
    Connection con = null;
       int userid=0;
    try
    {
       Class.forName("oracle.jdbc.OracleDriver");
       con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","Darshan
");

       String Query="Select userid from users where name = '" + user + "'"  ;
```

```java
            Statement smt = con.createStatement();
            ResultSet rs= smt.executeQuery(Query);

            while(rs.next())
            {
                userid = rs.getInt("USERID");
            }
            rs.close();
            smt.close();
            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }

        String courseid =req.getParameter("id");

        int cid = Integer.parseInt(courseid);

        try{
            Class.forName("oracle.jdbc.OracleDriver");
            con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","Darshan
");
            //Statement stmt = con.createStatement();

            String query = "insert into SelectedCourse values(?, ?)";
            PreparedStatement pstmt = con.prepareStatement(query);
            pstmt.setString(1, courseid);
            pstmt.setInt(2, userid);
            pstmt.executeUpdate();
            pstmt.close();

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

```java
        }

            out.println("<b> course it edded!!");
            RequestDispatcher RD = req.getRequestDispatcher("OnlineController");
            RD.include(req, resp);
        }
    }
```

SelectedCoureses.java(servlet)
```java
package onlineStudy;

import jakarta.servlet.RequestDispatcher;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;

public class SelectedCoureses extends HttpServlet {

    @Override
    protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws
ServletException, IOException {
        resp.setContentType("text/html");
        PrintWriter out = resp.getWriter();

        HttpSession session = req.getSession();
        String user =(String)session.getAttribute("user");
        resp.setContentType("text/html");

        Connection con = null;
         int userid=0;
        try
        {
            Class.forName("oracle.jdbc.OracleDriver");
            con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","Darshan
");
```

```java
        String Query="Select userid from users where name = '" + user + "'" ;

        Statement smt = con.createStatement();
        ResultSet rs= smt.executeQuery(Query);

        while(rs.next())
        {
           userid = rs.getInt("USERID");
        }
        rs.close();
        smt.close();



        String query2 = "select courseid from SelectedCourse where userid= " + userid ;
        Statement smt1 = con.createStatement();
        ResultSet rs1= smt1.executeQuery(query2);

        req.setAttribute("selectCourses", rs1);
        RequestDispatcher rd=req.getRequestDispatcher("FinalCourses.jsp");
        rd.forward(req, resp);

        rs1.close();
        smt1.close();
        con.close();

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

OUTPUT:

Online study

Registration From

User Name: Hetvi

Email: hetvi@gmail.com

age: 21

Contact number: 01234567812

Education background: bscit

Password : ••••

Register

Already hava an account

Online study

Login From

User Name: hetvi

Password : ••••

Login

Register

Welcome Tulsi

Course List

Course name	Course duration	Course Price	
java	2months	0	Add to cart
sql	1months	0	Add to cart
Esecurity	1months	0	Add to cart
asp.net	4months	1000	Add to cart
nosql	3months	200	Add to cart

submit