Practical-5

Pre Lab

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1)

~~Serve~~

Servlets :-

Servlets are java programs that run on the java-enabled web server or application server. They are used to handle the request obtained from the web server, process the request, produce the response, then send response back to web server.

lite Cycle of servlets :-

A servlet lite cycle can be defined as the entire process from its creation till the destruction. The following paths are followed by a servlet.

→ The servlet is initialized by calling the init() method.

→ The servlet calls service() method to process a client's request.

→ The servlet is terminated by calling the destroy() method.

→ Finally, servlet garbage is collected by JVM garbage collector.

2) Structure of directories under Tomcat's 'webapps' folder :-

□ Apache Software Foundation.

   □ Tomcat 8.5
     ⊞ bin
     ⊞ conf
     ⊞ lib
     ⊞ logs
     ⊞ temp
     □ webapps
       ⊞ docs
       ⊞ examples
       ⊞ host-manager
       ⊞ manager
       ⊞ ROOT
     ⊞ work

PRE LAB

3. Create a project named 'myservice' and using servlets make a service which prints "Welcome to Servlets!!" on to the server console. The class must be named 'FirstServlet' and the URL pattern must be '/your_name'.

   Add another service into the same 'myservice' project which prints "Bye to Servlets!!" on to the server console. Name the class 'SecondServlet' and set URL pattern to '/your_name143'. (Hint: Modify the 'web.xml' file by adding another servlet name and URL pattern.)

   Check the working condition of both the services.

FirstServlet:

```java
package prelab;

import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class FirstServlet
 */
@WebServlet("/FirstServlet")
public class FirstServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

    /**
     * Default constructor.
     */
    public FirstServlet() {
        // TODO Auto-generated constructor stub
    }

	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
		// TODO Auto-generated method stub
		response.getWriter().append("Served at: ").append(request.getContextPath());
		System.out.println("Welcome to Servlets!!");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
```
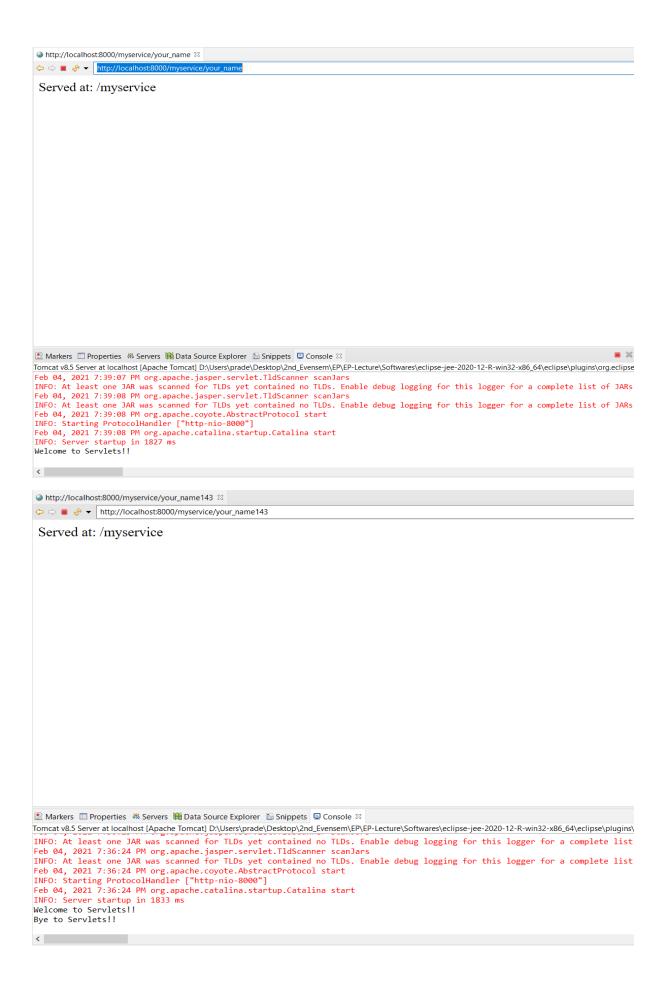
```java
		protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
			// TODO Auto-generated method stub
						doGet(request, response);
		}

}
```

SecondServlet :

```java
package prelab;

import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class SecondServlet
 */
@WebServlet("/SecondServlet")
public class SecondServlet extends HttpServlet {
		private static final long serialVersionUID = 1L;

	/**
	 * @see HttpServlet#HttpServlet()
	 */
	public SecondServlet() {
		super();
		// TODO Auto-generated constructor stub
	}

	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
response)
	 */
	protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
			// TODO Auto-generated method stub
			response.getWriter().append("Served at:
").append(request.getContextPath());
			System.out.println("Bye to Servlets!!");
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
			// TODO Auto-generated method stub
			doGet(request, response);
	}

}
```

web.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://java.sun.com/xml/ns/javaee"
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd" id="WebApp_ID" version="3.0">
  <display-name>myservice</display-name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.htm</welcome-file>
    <welcome-file>default.jsp</welcome-file>
  </welcome-file-list>
  <servlet>
    <servlet-name>First</servlet-name>
    <servlet-class>prelab.FirstServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>First</servlet-name>
    <url-pattern>/your_name</url-pattern>
  </servlet-mapping>
  <servlet>
    <servlet-name>Second</servlet-name>
    <servlet-class>prelab.SecondServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>Second</servlet-name>
    <url-pattern>/your_name143</url-pattern>
  </servlet-mapping>
</web-app>
```

Output:

http://localhost:8000/myservice/your_name

Served at: /myservice

Markers | Properties | 🖧 Servers | 🐞 Data Source Explorer | Snippets | 🖥 Console ⊠

Tomcat v8.5 Server at localhost [Apache Tomcat] D:\Users\prade\Desktop\2nd_Evensem\EP\EP-Lecture\Softwares\eclipse-jee-2020-12-R-win32-x86_64\eclipse\plugins\org.eclipse

```
Feb 04, 2021 7:39:07 PM org.apache.jasper.servlet.TldScanner scanJars
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs
Feb 04, 2021 7:39:08 PM org.apache.jasper.servlet.TldScanner scanJars
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs
Feb 04, 2021 7:39:08 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8000"]
Feb 04, 2021 7:39:08 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 1827 ms
Welcome to Servlets!!
```

http://localhost:8000/myservice/your_name143

Served at: /myservice

Markers | Properties | 🖧 Servers | 🐞 Data Source Explorer | Snippets | 🖥 Console ⊠

Tomcat v8.5 Server at localhost [Apache Tomcat] D:\Users\prade\Desktop\2nd_Evensem\EP\EP-Lecture\Softwares\eclipse-jee-2020-12-R-win32-x86_64\eclipse\plugins\

```
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list
Feb 04, 2021 7:36:24 PM org.apache.jasper.servlet.TldScanner scanJars
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list
Feb 04, 2021 7:36:24 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8000"]
Feb 04, 2021 7:36:24 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 1833 ms
Welcome to Servlets!!
Bye to Servlets!!
```

INLAB

1. A professor from K L University after 21 years of Work he decided to retire from his job and before he leaves, he wants to get feedback about him from all his students. As you are his favorite student, he asked you for help, so, you decided to make a Web app using servlets in which the students must first register and then login into it with the registered credentials, which in turn gives a page and Asks for remarks , the students can type and submit their views in it and this login credentials and remarks must be stored into 'farewell' table in database. He wants everyone to register and login because he wants to know how every particular student think about him.

Creating table:

```
Run SQL Command Line

SQL*Plus: Release 11.2.0.2.0 Production on Thu Feb 4 20:21:47 2021

Copyright (c) 1982, 2014, Oracle.  All rights reserved.

SQL> connect ep/ep123;
Connected.
SQL> create table practical5(studentid number(30), email varchar2(50), password varchar2(30));

Table created.

SQL>
```

Register Student

Html:

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Register</title>
</head>
<body>
<div>
      <a href="Login.html">Login</a> |
      <a href="register.html">Register</a>
      <hr>
</div>
<h3>Register Here!</h3>
<form action='RegisterUser' method='post'>
      <label for='sid'>Student ID</label>
      <input type='text' name='studentid' id='sid' value='' placeholder='Student
Id'><br>

      <label for='email'>Email</label>
      <input type='text' name='email' id='email' value=''
placeholder='Email'><br>
```

```html
        <label for='pwd'>Password</label>
        <input type='Password' name='password' id='pwd' value=''
placeholder='password'><br>

        <input type='submit' value='Register'><br>

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

Register student servlet:

```java
package Register;

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

import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class RegisterUser
 */
@WebServlet("/RegisterUser")
public class RegisterUser extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * Default constructor.
     */
    public RegisterUser() {
        // TODO Auto-generated constructor stub
    }//190030061

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        // TODO Auto-generated method stub
        response.getWriter().append("Served at:
").append(request.getContextPath());
    }

    /**
     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        try {
```

```java
                    Class.forName("oracle.jdbc.driver.OracleDriver");
                    //190030061
                    Connection con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","ep","ep123");
                    System.out.println("Connection to database success");

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

                    String sql = "INSERT INTO practical5 VALUES (?,?,?)";
                    PreparedStatement ps = con.prepareStatement(sql);

                    ps.setString(1, studentid);
                    ps.setString(2, email);
                    ps.setString(3, password);

                    int count = ps.executeUpdate();
                    //190030061
System.out.println("User registration successfull");
                    if(count > 0) {
                            RequestDispatcher rd =
request.getRequestDispatcher("login.html");
                            rd.forward(request,response);
                    }else {
                            RequestDispatcher rd =
request.getRequestDispatcher("register.html");
                            rd.forward(request,response);
                    }
            } catch (ClassNotFoundException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
            } catch (SQLException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
            }
        }

}
```

Login student:

Html

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Login</title>
</head>
<body>
<div>
    <a href="Login.html">Login</a> |
    <a href="register.html">Register</a>
    <hr>
</div>
<h3>Login Here!</h3>
```

```html
<form action='LoginUser' method='post'>
      <label for='sid'>Student ID</label>
      <input type='text' name='studentid' id='sid' value='' placeholder='Student
Id'><br>

      <label for='pwd'>Password</label>
      <input type='Password' name='password' id='pwd' value=''
placeholder='password'><br>

      <input type='submit' value='Login'><br>

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

Login Student servlet:

```java
package Login;

import java.io.IOException;

import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import java.sql.*;
/**
 * Servlet implementation class LoginUser
 */
@WebServlet("/LoginUser")
public class LoginUser extends HttpServlet {
      private static final long serialVersionUID = 1L;
      //190030061
    /**
     * @see HttpServlet#HttpServlet()
     */
    public LoginUser() {
        super();
        // TODO Auto-generated constructor stub
    }

      /**
       * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
response)
       */
      protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
            // TODO Auto-generated method stub
            response.getWriter().append("Served at:
").append(request.getContextPath());
      }
      //190030061
      /**
```

```java
         * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
        */
       protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
            try {

                    String sid = request.getParameter("studentid");
                    String pwd = request.getParameter("password");

                    Class.forName("oracle.jdbc.driver.OracleDriver");
                    Connection con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","ep","ep123");

                    String sql = "SELECT * FROM practical5 WHERE STUDENTID = ? AND
PASSWORD = ?";
                    PreparedStatement ps = con.prepareStatement(sql);

                    ps.setString(1,sid);
                    ps.setString(2,pwd);

                    ResultSet rs = ps.executeQuery();
                    //190030061
System.out.println("User Login successfull");
                    if(rs.next()) {

                            Cookie un = new Cookie("un",sid);
                            Cookie pd = new Cookie("pw", pwd);

                            response.addCookie(un);
                            response.addCookie(pd);

                            RequestDispatcher rd =
request.getRequestDispatcher("remark.html");
                            rd.forward(request, response);
                    }else {
                            RequestDispatcher rd =
request.getRequestDispatcher("login.html");
                            rd.forward(request, response);
                    }

            } catch (ClassNotFoundException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
            } catch (SQLException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
            }
            //190030061
     }

}
```

Add remark:

Html :

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Remark</title>
</head>
<body>
<div>
<a href="Login.html">Login</a> |
	<a href="register.html">Register</a> |
	<a href="remark.html">Add Remark</a> |
	<a href="Profile">Profile</a> |
	<a href="LogOut">Log Out</a> |
	<hr>
</div>
	<h3>Add Remarks</h3>
	<form method='post' action='AddRemark'>

		<label for="q1">Which Semester You acquired sir's class?</label>
		<select name="q1" id="q1">
		  <option value="1-1">1-1</option>
		  <option value="1-2">1-2</option>
		  <option value="2-1">2-1</option>
		  <option value="2-2">2-2</option>
		  <option value="3-1">3-1</option>
		  <option value="3-2">3-2</option>
		  <option value="4-1">4-1</option>
		  <option value="4-2">4-2</option>
		</select><br>
		<br>
		 <div>
		 <strong>Sir's Communication Skills ?</strong><br>
		   <input type="radio" name="q2" value="excellent">Excellent<br>
		   <input type="radio" name="q2" value="good">Good<br>
		   <input type="radio" name="q2" value="roor"> Poor<br>
		</div><br>
		<br>
		<br>
		   <div>
		   <strong>Did you get very concept that have been taught to
you?</strong><br>
		      <input type="radio" name="q3" value="yes">Yes<br>
		      <input type="radio" name="q3" value="no">No<br>
		</div><br>
		<br>
		 <div>
		   <strong>Overall Remarks</strong><br>
		    <input type="radio" name="q4" value="above-90">Above - 90%<br>
		    <input type="radio" name="q4" value="above-80">Above - 80%<br>
		    <input type="radio" name="q4" value="below-60">Below - 60%<br>
		     <input type="radio" name="q4" value="other">Other<br>
		</div><br>
		<br>
		 <input type='submit' value='Add Remark'>
	</form>
</body>
</html>
```
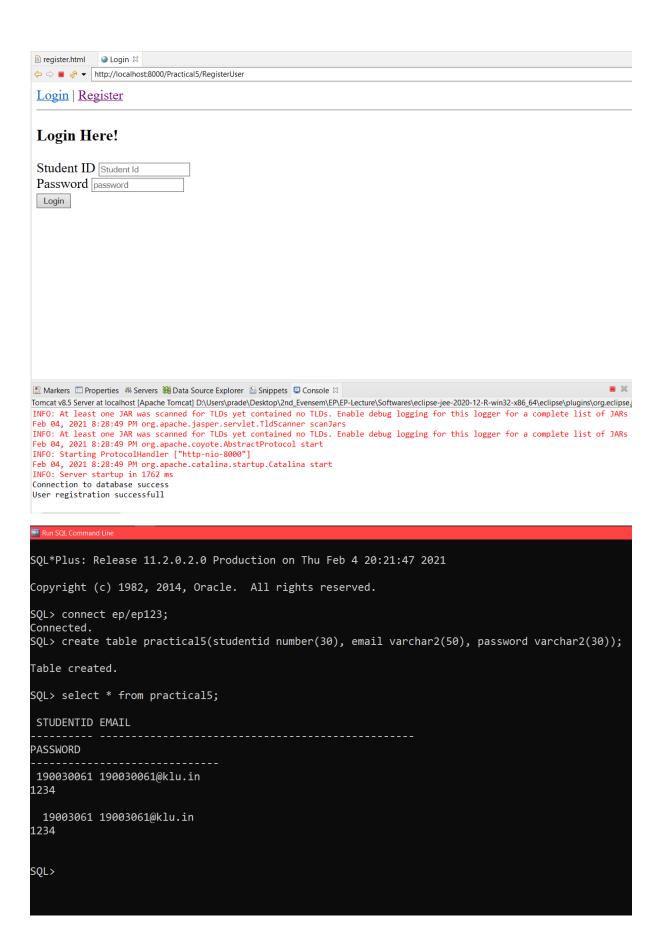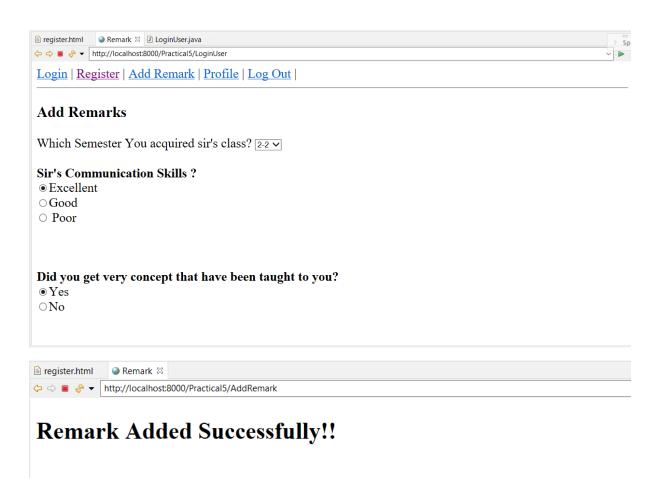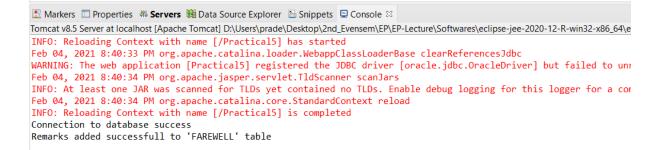
AddRemark servlet:

```java
package Remark;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;

import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class AddRemark
 */
@WebServlet("/AddRemark")
public class AddRemark extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public AddRemark() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        // TODO Auto-generated method stub
        response.getWriter().append("Served at:
").append(request.getContextPath());
    }
    //190030061
    /**
     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        try {
            Class.forName("oracle.jdbc.driver.OracleDriver");

            Connection con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","ep","ep123");
            System.out.println("Connection to database success");

            String q1 = request.getParameter("q1");
            String q2 = request.getParameter("q2");
```

```java
                String q3 = request.getParameter("q3");
                String q4 = request.getParameter("q4");
                 Cookie c[]=request.getCookies();
                String studentid = c[0].getValue();
                String password = c[1].getValue();

                String sql = "INSERT INTO farewell VALUES (?,?,?,?,?,?)";
                PreparedStatement ps = con.prepareStatement(sql);

                ps.setString(1, studentid);
                ps.setString(2, password);
                ps.setString(3, q1);
                ps.setString(4, q2);
                ps.setString(5, q3);
                ps.setString(6, q4);

                int count = ps.executeUpdate();
                //190030061
                if(count > 0) {
                        RequestDispatcher rd =
request.getRequestDispatcher("remarkaddedsucc.html");
                        rd.forward(request,response);
                }else {
                        RequestDispatcher rd =
request.getRequestDispatcher("remarkaddedfail.html");
                        rd.forward(request,response);
                }
        } catch (ClassNotFoundException e) {
                // TODO Auto-generated catch block
                e.printStackTrace();//190030061
        } catch (SQLException e) {
                // TODO Auto-generated catch block
                e.printStackTrace();
        }
    }

}
```

Output:

Login | Register

Login Here!

Student ID `Student Id`
Password `password`
[Login]

Markers | Properties | Servers | Data Source Explorer | Snippets | Console ✕

Tomcat v8.5 Server at localhost [Apache Tomcat] D:\Users\prade\Desktop\2nd_Evensem\EP\EP-Lecture\Softwares\eclipse-jee-2020-12-R-win32-x86_64\eclipse\plugins\org.eclipse.

```
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs
Feb 04, 2021 8:28:49 PM org.apache.jasper.servlet.TldScanner scanJars
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs
Feb 04, 2021 8:28:49 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8000"]
Feb 04, 2021 8:28:49 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 1762 ms
Connection to database success
User registration successfull
```

```
Run SQL Command Line

SQL*Plus: Release 11.2.0.2.0 Production on Thu Feb 4 20:21:47 2021

Copyright (c) 1982, 2014, Oracle.  All rights reserved.

SQL> connect ep/ep123;
Connected.
SQL> create table practical5(studentid number(30), email varchar2(50), password varchar2(30));

Table created.

SQL> select * from practical5;

 STUDENTID EMAIL
---------- --------------------------------------------------
PASSWORD
------------------------------
 190030061 190030061@klu.in
1234

  19003061 19003061@klu.in
1234


SQL>
```

http://localhost:8000/Practical5/LoginUser

Login | Register | Add Remark | Profile | Log Out |

Add Remarks

Which Semester You acquired sir's class? [2-2 ▽]

Sir's Communication Skills ?
⦿ Excellent
◯ Good
◯ Poor

Did you get very concept that have been taught to you?
⦿ Yes
◯ No

---

register.html | Remark ⊠

http://localhost:8000/Practical5/AddRemark

Remark Added Successfully!!

Markers Properties **Servers** Data Source Explorer Snippets Console ⊠

Tomcat v8.5 Server at localhost [Apache Tomcat] D:\Users\prade\Desktop\2nd_Evensem\EP\EP-Lecture\Softwares\eclipse-jee-2020-12-R-win32-x86_64\e

```
INFO: Reloading Context with name [/Practical5] has started
Feb 04, 2021 8:40:33 PM org.apache.catalina.loader.WebappClassLoaderBase clearReferencesJdbc
WARNING: The web application [Practical5] registered the JDBC driver [oracle.jdbc.OracleDriver] but failed to unr
Feb 04, 2021 8:40:34 PM org.apache.jasper.servlet.TldScanner scanJars
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a cor
Feb 04, 2021 8:40:34 PM org.apache.catalina.core.StandardContext reload
INFO: Reloading Context with name [/Practical5] is completed
Connection to database success
Remarks added successfull to 'FAREWELL' table
```

Database Output for 'farewell' table :

```
Run SQL Command Line

SQL> select * from farewell;

 STUDENTID PASSWORD                            Q1
---------- ------------------------------ ------------------------------
Q2                             Q3
------------------------------ ----------------------------
Q4
------------------------------
   19002001 1234                           2-1
good                           no
above-80

   19002002 12345                          2-2
good                           yes
above-80

 STUDENTID PASSWORD                            Q1
---------- ------------------------------ ------------------------------
Q2                             Q3
------------------------------ ----------------------------
Q4
------------------------------

 190030061 1234                           2-2
excellent                      yes
above-90

 190030061 1234                           2-2
excellent                      yes
```

POST LAB

1. Create a login Servlet which on login retrieves and Displays the Previous Remark Given by you. You must also provide an Update Remark Text Field in which the student can type a new remark and replace the previous remark with it. For login, use the credentials that are in the 'farewell' table. **Use Eclipse IDE for ease of the task.**

Student login:

Html:

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Login</title>
</head>
<body>

<h3>Login Here!</h3>
<form action='LoginStudent' method='post'>
    <label for='sid'>Student ID</label>
    <input type='text' name='studentid' id='sid' value='' placeholder='Student Id'><br>

    <label for='pwd'>Password</label>
    <input type='Password' name='password' id='pwd' value='' placeholder='password'><br>

    <input type='submit' value='Login'><br>

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

Student Login servlet:

```java
package login;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;

import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class LoginStudent
 */
@WebServlet("/LoginStudent")
public class LoginStudent extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
```

```java
     * @see HttpServlet#HttpServlet()
     */
    public LoginStudent() {
        super();
        // TODO Auto-generated constructor stub
    }
//    190030061
    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
            // TODO Auto-generated method stub
            response.getWriter().append("Served at: ").append(request.getContextPath());
    }

    /**
     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
try {
//    190030061
                String sid = request.getParameter("studentid");
                String pwd = request.getParameter("password");

                Class.forName("oracle.jdbc.driver.OracleDriver");
                Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","ep","ep123");

                String sql = "SELECT * FROM farewell WHERE STUDENTID = ? AND PASSWORD = ?";
                PreparedStatement ps = con.prepareStatement(sql);

                ps.setString(1,sid);
                ps.setString(2,pwd);

                ResultSet rs = ps.executeQuery();
//                190030061
                System.out.println("Student login to 'FAREWELL' table Successfull!");

                if(rs.next()) {

                        Cookie un = new Cookie("un",sid);
                        Cookie pd = new Cookie("pw", pwd);

                        response.addCookie(un);
                        response.addCookie(pd);
//                        190030061
                        RequestDispatcher rd = request.getRequestDispatcher("viewremark.html");
                        rd.forward(request, response);
                }else {
                        RequestDispatcher rd = request.getRequestDispatcher("login.html");
                        rd.forward(request, response);
```

```
                }

            } catch (ClassNotFoundException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
            } catch (SQLException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
            }//                190030061
        }

}
```

View Remark servlet:

```java
package Postlab;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;


//190030061
/**
 * Servlet implementation class ViewRemark
 */
@WebServlet("/ViewRemark")
public class ViewRemark extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public ViewRemark() {
        super();
        // TODO Auto-generated constructor stub
    }
//    190030061
    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
            PrintWriter out = response.getWriter();
        response.setContentType("text/html");
        out.println("<html><body>");
            try {
                    Cookie c[]=request.getCookies();
                    String studentid = c[0].getValue();
                    String password = c[1].getValue();
```
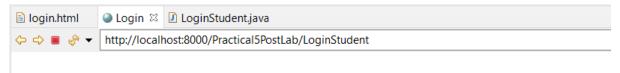
```java
                    Class.forName("oracle.jdbc.driver.OracleDriver");

                    Connection con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","ep","ep123");
//              190030061
                    String sql = "SELECT * FROM farewell WHERE studentid = ?";
                    PreparedStatement ps = con.prepareStatement(sql);

                 ps.setString(1, studentid);

                ResultSet rs =  ps.executeQuery();
                out.println("<h1>Remarks</h1>");
                out.println("<table border=1 width=50% height=25%>");
            out.println("<tr><th>Question 1</th><th>Question 2</th><th>Question
3</th><th>Question 4</th><tr>");

                while(rs.next()) {

                        String q1 = rs.getString("q1");
                        String q2 = rs.getString("q2");
                        String q3 = rs.getString("q3");
                        String q4 = rs.getString("q4");

                        out.println("<tr><td>" + q1 + "</td><td>" + q2 +
"</td><td>" + q3 + "</td><td>" + q4 + "</td></tr>");
                }

//              190030061
                out.println("</table>");
            out.println("</body></html>");
            con.close();
              } catch (ClassNotFoundException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
              } catch (SQLException e) {
                    // TODO Auto-generated catch block
                    e.printStackTrace();
              }
        }

//      190030061

      /**
       * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
       */
      protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {

      }

}
```

Update Remark servlet:

```java
package Postlab;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;

import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class UpdateRemark
 */
@WebServlet("/UpdateRemark")
public class UpdateRemark extends HttpServlet {
	private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public UpdateRemark() {
        super();
        // TODO Auto-generated constructor stub
    }
//    190030061
	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
		// TODO Auto-generated method stub
		response.getWriter().append("Served at: ").append(request.getContextPath());
	}

	/**
	 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
		try {
//			190030061
			PrintWriter out = response.getWriter();
		response.setContentType("text/html");

			Class.forName("oracle.jdbc.driver.OracleDriver");
```

```java
                Connection con =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","ep","ep123");
                System.out.println("Connection to database success");

                String q1 = request.getParameter("q1");
                String q2 = request.getParameter("q2");
                String q3 = request.getParameter("q3");
                String q4 = request.getParameter("q4");
                 Cookie c[]=request.getCookies();
                String studentid = c[0].getValue();

                String sql = "UPDATE farewell SET Q1 = ?, Q2 = ?, Q3 = ?, Q4 =
? WHERE studentid = ? ";
                PreparedStatement ps = con.prepareStatement(sql);

                ps.setString(1, q1);
                ps.setString(2, q2);
                ps.setString(3, q3);
                ps.setString(4, q4);
                ps.setString(5, studentid);
//              190030061
                int count = ps.executeUpdate();
                System.out.println("Student update to remark in 'FAREWELL'
table Successfull!");
                if(count > 0) {
                        out.println("<html><body><h3>Update Success
Full</h3><br><a href='ViewRemark'>View Remarks</a></body></html>");
                }else {
                        out.println("<html><body><h3>Update
Unsuccessfull</h3><br><a href='ViewRemark'>View Remarks</a></body></html>");
                }
        } catch (ClassNotFoundException e) {
                // TODO Auto-generated catch block
                e.printStackTrace();
        } catch (SQLException e) {
                // TODO Auto-generated catch block
                e.printStackTrace();
        }//              190030061
    }

}
```

Output:

login.html ⚫ Login ✕ 🗋 LoginStudent.java

⇦ ⇨ ■ 🔗 ▾ http://localhost:8000/Practical5PostLab/LoginStudent

Login Here!

Student ID `190030061`
Password `••••`

[Login]

---

login.html ⚫ http://localhost:8000/Practical5PostLab/ViewRemark ✕ 🗋 LoginStudent.java

⇦ ⇨ ■ 🔗 ▾ http://localhost:8000/Practical5PostLab/ViewRemark

Remarks

Question 1	Question 2	Question 3	Question 4
2-2	excellent	yes	above-90
2-2	excellent	yes	above-90
2-2	excellent	yes	above-90

🔲 Markers ▢ Properties 🕸 Servers 📑 Data Source Explorer 🗏 Snippets ▢ Console ✕

Tomcat v8.5 Server at localhost [Apache Tomcat] D:\Users\prade\Desktop\2nd_Evensem\EP\EP-Lecture\Softwares\eclipse-jee-2020-12-R-win32-x86_64\eclipse\plugin:
Feb 04, 2021 8:54:25 PM org.apache.jasper.servlet.TldScanner scanJars
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete lis
Feb 04, 2021 8:54:25 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8000"]
Feb 04, 2021 8:54:25 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 1915 ms
Student login to 'FAREWELL' table Successfull!
Student login to 'FAREWELL' table Successfull!
Student login to 'FAREWELL' table Successfull!

Update Remarks

Which Semester You acquired sir's class? [3-1 ▽]

Sir's Communication Skills ?
◉ Excellent
○ Good
○ Poor

Did you get very concept that have been taught to you?
◉ Yes
○ No

Overall Remarks
○ Above - 90%

Update Success Full

View Remarks

Markers Properties Servers Data Source Explorer Snippets ● Console ⊠

Tomcat v8.5 Server at localhost [Apache Tomcat] D:\Users\prade\Desktop\2nd_Evensem\EP\EP-Lecture\Softwares\eclipse-jee-2020-12-R-win32-x86_64\eclip

```
Feb 04, 2021 8:54:25 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8000"]
Feb 04, 2021 8:54:25 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 1915 ms
Student login to 'FAREWELL' table Successfull!
Student login to 'FAREWELL' table Successfull!
Student login to 'FAREWELL' table Successfull!
Connection to database success
Student update to remark in 'FAREWELL' table Successfull!
```

Remarks

Question 1	Question 2	Question 3	Question 4
3-1	excellent	yes	above-80
3-1	excellent	yes	above-80
3-1	excellent	yes	above-80