

Prog 4 Implement a Java Servlet program to implement a dynamic HTML using Servlet (user name and password should be accepted using HTML and displayed using a Servlet)

index.html file

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Login Form </title>
</head>
<body>
  <h2>Login Form </h2>
  <form action="Login" method="POST">
    <label for="username">Username: </label> <br>
    <input type="text" id="username" name="username"
      required ><br><br>
    <label for="password">Password: </label> <br>
    <input type="password" name="password"
      required ><br><br>
    <input type="submit" value="Submit">
  </form>
```

LoginServlet.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class LoginServlet extends HttpServlet {
  @Override
  protected void doPost(HttpServletRequest request,
    HttpServletResponse response) throws ServletException,
    IOException {
    String username = request.getParameter("username");
    String password = request.getParameter("password");
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<html><body>");
    out.println("<h2>Welcome, " + username + "! </h2>");
    out.println("<p>Your password is : " + password + "</p>");
    out.println("</body></html>");
  }
}
```

Prog1 WAP to create a simple web application 10
using Servlet interface and print hello on
browser.

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class HelloServlet implements Servlet {
    public void init(ServletConfig config) throws
        ServletException {
    }

    public void service(ServletRequest request, Servlet-
        Response response) throws ServletException,
        IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("<h1> Hello, </h1>");
        out.println("</html></body>");
    }

    public ServletConfig getServletConfig() {
        return null;
    }

    public String getServletInfo() {
        return "HelloServlet";
    }

    public void destroy() {
    }
}
```

```
web.xml
<web-apps> <Servlet>
    <Servlet-name> HelloServlet </Servlet-name>
    <Servlet-class> HelloServlet </Servlet-class>
</Servlet>
<Servlet-mapping>
    <Servlet-name> HelloServlet </Servlet-name>
    <url-pattern> /hello </url-pattern>
</Servlet-mapping>
</web-apps>
```

Prog2. WAP to create a simple web application using generic servlet class and print hello on browser.

```
package com.prog.servlet;  
import javax.servlet.*;  
import java.io.*;  
  
public class HelloGenericServlet extends GenericServlet {  
    @Override  
    public void service(ServletRequest request,  
        ServletResponse response) throws ServletException,  
        IOException {  
        response.setContentType("text/html");  
        PrintWriter out = response.getWriter();  
        out.println("<html><body>");  
        out.println("<h1> Hello World </h1>");  
        out.println("</body></html>");  
    }  
}
```

}

web.xml

<web-app>

<servlet>

<servlet-name>HelloGenericServlet </servlet-name>
<servlet-class>com.prog.servlet.HelloGenericServlet </servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>HelloGenericServlet </servlet-name>
<url-pattern>/HelloGenericServlet </url-pattern>

</servlet-mapping>

</web-app>

Lab Assignment = 02

Prog. WAP to create a simple web application using
HttpServlet class and print hello on browser.

```
package com.prog.servlet;  
import javax.servlet.*;  
import javax.servlet.http.*;  
import java.io.IOException;  
public class HelloServlet extends HttpServlet {  
    protected void doGet(HttpServletRequest request,  
        HttpServletResponse response) throws  
        ServletException, IOException {  
        response.setContentType("text/html");  
        PrintWriter out = response.getWriter();  
        out.println("<html><body>");  
        out.println("<h1> Hello World ! </h1>");  
        out.println("</body></html>");  
    }  
}
```

web.xml

```
<web-app>  
  <servlet>  
    <servlet-name>HelloServlet</servlet-name>  
    <servlet-class>com.prog.servlet.HelloServlet</servlet-class>  
  </servlet>  
  <servlet-mapping>  
    <servlet-name>HelloServlet</servlet-name>  
    <url-pattern>/hello</url-pattern>  
  </servlet-mapping>  
</web-app>
```

output 6

```
javac CommandLineJDBCInsert.java  
java CommandLineJDBCInsert "Himani"  
chauhan "Himani@gmail.com"
```

output.

Data inserted successfully: Himani chauhan
Himani@gmail.com.

Lab Assignment = 02

Prog3 WAP to create a simple web application using
HttpServlet class and print hello on browser.

```
package com.prg.servlet;  
import javax.servlet.*;  
import javax.servlet.http.*;  
import java.io.IOException;  
  
public class HelloServlet extends HttpServlet {  
    protected void doGet(HttpServletRequest request,  
        HttpServletResponse response) throws  
        ServletException, IOException {  
        response.setContentType("text/html");  
        PrintWriter out = response.getWriter();  
        out.println("<html><body>");  
        out.println("<h1> Hello World ! </h1>");  
        out.println("</body></html>");  
    }  
}
```

web.xml

```
<web-app>  
    <servlet>  
        <servlet-name>HelloServlet</servlet-name>  
        <servlet-class>com.prg.servlet.HelloServlet</servlet-class>  
    </servlet>  
    <servlet-mapping>  
        <servlet-name>HelloServlet</servlet-name>  
        <url-pattern>/hello</url-pattern>  
    </servlet-mapping>  
</web-app>
```

Prog:- Write a java program to accept the data from command line arguments and insert the data in a table present in mysql database using jdbc.

```
import java.sql.*;  
import java.sql.SQLException;
```

```
public class Prog6 {  
    public static void main(String[] args) {
```

```
        if (args.length != 2) {
```

```
            System.out.println("Usage : java CommandLineJDBCInsert  
            <name> <email>");
```

```
            return;
```

```
        }
```

```
        String name = args[0];
```

```
        String email = args[1];
```

```
        String url = "jdbc:mysql://localhost:3306/testdb";
```

```
        String username = "root";
```

```
        String password = "root";
```

```
        Connection con = null;
```

```
        Statement Stmt = null;
```

```
        try {
```

```
            con = DriverManager.getConnection(url, username,  
            password);
```

```
            Stmt = con.createStatement();
```

```
            String insertDataQuery = "insert into User (name,  
            email) values ('"+name+"', '"+email+"')";
```

```
            int rowsAffected = Stmt.executeUpdate(insertDataQuery);  
            if (rowsAffected > 0) {
```

```
                System.out.println("Data inserted Successfull: "+  
                name + ", " + email);
```

```
            } else {
```

```
                System.out.println("Failed to insert data");
```

```
            }
```

```
            con.close();
```

```
        } catch (SQLException e) {  
            e.printStackTrace();  
        }  
    }
```

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Prog 5. Write a Java program which demonstrates the difference between Statement Interface and prepared statement interface.

```
import java.sql.*;
import java.sql.SQLException;
```

```
public class Prog5 {
```

```
    public static void main(String[] args) {
        String url = "jdbc:mysql://localhost:3306/First";
        String username = "root";
        String password = "root";
        PreparedStatement pstmt = null;
        Connection con = null;
        Statement stmt = null;
```

```
try {
```

```
    con = DriverManager.getConnection(url, username, password);
```

```
    stmt = con.createStatement();
```

```
    String createTableQuery = "create table if not exists user (id int auto-increment primary key, name varchar(100), email varchar(100))";
```

```
    stmt.executeUpdate(createTableQuery);
```

```
    //using statement to insert data.
```

```
    String insertQuery1 = "insert into user(name, email) values ('Himani', 'Himani@gmail.com')";
```

```
    stmt.executeUpdate(insertQuery1);
```

```
    //using PreparedStatement to insert data
```

```
    String insertQuery2 = "insert into user(name, email) values (?, ?)";
```

```
    pstmt = con.prepareStatement(insertQuery2);
```

```
    pstmt.setString(1, "Honey");
```

```
    pstmt.setString(2, "Honey@gmail.com");
```

```
    pstmt.executeUpdate();
```

```
    con.close();
```

```
    } catch (SQLException e) {
```

```
    } } e.printStackTrace();
```

Prog 4: Write a java program using jdbc technique to create table and perform connection operation using Mysql database. 5

```
import java.sql.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class LabAssignment4 {
    public static void main(String[] args) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            String url = "jdbc:mysql://localhost:3306/first";
            String username = "root";
            String password = "root";
            Connection con = DriverManager.getConnection(url,
                username, password);

            String q = "Create table IF NOT EXISTS Student
                (StudentId int (5) primary key auto-increment,
                StudentName varchar (100), StudentCourse varchar
                (100))";

            Statement stmt = con.createStatement();
            stmt.executeUpdate(q);
            System.out.println("table is created");

            String insertQuery1 = "insert into Student (Student
                Name, StudentCourse) values ('Himani', 'MCA')";
            stmt.executeUpdate(insertQuery1);

            String insertQuery2 = "insert into Student (StudentName
                , StudentCourse) values ('Honey', 'Hindi')";
            stmt.executeUpdate(insertQuery2);

            String selectQuery = "Select * from Student";
            ResultSet rs = stmt.executeQuery(selectQuery);
            while (rs.next()) {
                String name = rs.getString("StudentName");
                String course = rs.getString("StudentCourse");
                System.out.println("Name: " + name);
                System.out.println("course: " + course);
            }
            con.close();
        } catch (Exception e) { e.printStackTrace(); }
    }
}
```

output 2-

StudentId	StudentName	StudentCourse
1	Himani Honey	MCA
2		third

After updation.

StudentId	StudentName	StudentCourse
1	Himani chauhani	MCA
2	Honey	third

```

Prog 2:-
import java.sql.*;
import java.sql.DriverManager;
import java.sql.SQLException;

public class LabAssignment3 {
    public static void main (String[] args) {
        try {
            Class.forName("com.mysql.jdbc.Driver");
            String url = "jdbc:mysql://localhost:3306/first";
            String username = "root";
            String password = "root";
            Connection con = DriverManager.getConnection(
                url, username, password);

            String q = "create table IF NOT EXISTS Emp
                (EmpId int (5) primary key auto-increment,
                EmpName varchar(100), EmpPost varchar(100));";
            Statement stmt = con.createStatement();
            stmt.executeUpdate(q);
            System.out.println("table is created");

            String deletedQuery = "delete from Emp where EmpId=1";
            stmt.executeUpdate(deletedQuery);
            System.out.println("data of table deleted");
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}

```

```

Prog 3:- Write a java program using jdbc +
connection technique to create table and
perform delete operation using mysql database.

import java.sql.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class LabAssignment3 {
    public static void main (String[] args) {
        try {
            Class.forName("com.mysql.jdbc.Driver");
            String url = "jdbc:mysql://localhost:3306/first";
            String username = "root";
            String password = "root";
            Connection con = DriverManager.getConnection(
                url, username, password);

            String q = "create table IF NOT EXISTS Emp
                (EmpId int (5) primary key auto-increment,
                EmpName varchar(100), EmpPost varchar(100));";
            Statement stmt = con.createStatement();
            stmt.executeUpdate(q);
            System.out.println("table is created");

            String deletedQuery = "delete from Emp where EmpId=1";
            stmt.executeUpdate(deletedQuery);
            System.out.println("data of table deleted");
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}

```

Prog 2:- Write a java program using jdbc
connection technique to create table and
perform update operation using mysql
database.

```
import java.sql.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class LabAssignment2 {
    public static void main(String[] args) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            String url = "jdbc:mysql://localhost:3306/first?";
            String username = "root";
            String password = "root";
            Connection con = DriverManager.getConnection(
                url, username, password);

            String q = "create table IF NOT EXISTS student
                (studentId int(5) primary key auto-increment,
                studentName varchar(100), studentCourse varchar
                (100))";
            Statement stmt = con.createStatement();
            stmt.executeUpdate(q);
            System.out.println("table is created.");
            String updateQuery = "update student set studentName
                'Himani chauhan' where studentId = 1";
            stmt.executeUpdate(updateQuery);
            System.out.println("table is updated.");
            con.close();
        }
        catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

output 1

StudentID	StudentName	StudentCourse
1	Himani	MCA
2	Honey	third

Strin

Str
Syst

Cor

} ca

}

}

}

```

String insertQuery2 = "Insert Into Student (
    studentName, studentCourse) values
    ('Honey', 'HPrd')";
stmt.executeUpdate(insertQuery2);
System.out.println("Data Inserted Successfully");
con.close();
} catch (Exception e) {
    e.printStackTrace();
}
}
}

```

course

--

Lab- Assignment = 01

4

Prog1:- Write a java program using Jdbc connection technique to create table and perform insert operation using mysql database.

```
import java.sql.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class LabAssignment1 {
    public static void main(String[] args) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");

            String url = "jdbc:mysql://localhost:3306/first";
            String username = "root";
            String password = "root";

            Connection con = DriverManager.getConnection(
                url, username, password);

            String q = "create table IF NOT EXISTS Student
            (StudentId int(5) primary key auto-increment,
            StudentName varchar(100), StudentCouse
            varchar(100));";

            Statement stmt = con.createStatement();
            stmt.executeUpdate(q);
            System.out.println("table is created");

            String insertQuery1 = "insert into student
            (StudentName, StudentCouse) values
            ('Himani', 'MCA')";

            stmt.executeUpdate(insertQuery1);
```

http://localhost:8080/index.html

username:

Password:

LoginServlet.java

Welcome admin
 Your password is 123

Prog 4 Implement
 (user name
 using HTML a
 index.html file

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title> Login
</head>
```

```
<body>
  <h2> Login
  <form action="">
    <label for="username"> Username: </label>
    <input type="text" id="username" value="admin" />
    <label for="password"> Password: </label>
    <input type="password" id="password" value="123" />
    <input type="button" value="Submit" />
  </form>
```

LoginServlet.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class LoginServlet
```

```
@Override
protected void
  doPost(HttpServletRequest request,
    HttpServletResponse response)
    throws ServletException, IOException
```

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

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

```
out.println("<h2> Welcome " + username + "</h2>");
out.println("<p> Your password is " + password + "</p>");
out.println("</body>");
}
```

web.xml file

```
<web-app>
  <servlet>
    <servlet-name>LoginServlet</servlet-name>
    <servlet-class>LoginServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>LoginServlet</servlet-name>
    <url-pattern>/login</url-pattern>
  </servlet-mapping>
</web-app>
```

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