

4a

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<form action="WebPage">
<input type="submit" value="CLICK-ME">
</form>
</body>
</html>
```

```
import java.io.IOException;
import java.io.PrintWriter;
import java.util.Calendar;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/WebPage")
public class WebPage extends HttpServlet
{
    private static final long serialVersionUID = 1L;
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException
    {
        PrintWriter out=response.getWriter();
        try
        {
            response.setContentType("text/html");
            response.setIntHeader("refresh", 2);
            Calendar cal=Calendar.getInstance();
            out.println("<html><body bgcolor='red'>");
            out.println("<h1>The DATE AND TIME IS:</h1>"+cal.getTime());
```

```

        out.println("</body></html>");
    }
    catch(Exception e)
    {
        out.println("Exception"+e.getMessage());
    }
}
}
}
}

```

```

4b*****
*****

```

```

<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<form action="Validation">
<label>UserName</label>
<input type="text" name="username">
<br><br>
<label>Password</label>
<input type="password" name="password"><br>
<br>
<input type="submit" value="submit">
</form>
</body>
</html>

```

```

import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.*;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebInitParam;

```

```

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

@WebServlet(urlPatterns="/Validation",initParams= {
    @WebInitParam(name="username",value="rvce"),
    @WebInitParam(name="password",value="rvce")

})

public class Validation extends HttpServlet {
    private static final long serialVersionUID = 1L;

    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {

        PrintWriter out = response.getWriter();
        response.setContentType("text/HTML");
        String usr = request.getParameter("username");
        String psw = request.getParameter("password");
        ServletConfig cn = getServletConfig();
        String user = cn.getInitParameter("username");
        String password = cn.getInitParameter("password");
        if(user.equalsIgnoreCase(usr) && password.equalsIgnoreCase(psw)) {
            out.println("<h3> the username and password is valid </h3>");
        }
        else {
            out.println("<h3>the username and password is invalid....!</h3>");
        }
    }
}

```

```

5a*****
*****

```

html file

```
<!DOCTYPE html>
```

```
<html>
<head>
<meta charset="UTF-8">
</head>
<body>
<form action="login.jsp">
<label>UserName</label>
<input type="text" name="usr">
<br><br>
<label>Password</label>
<input type="password" name="pass"><br>
<br>
<input type="submit" value="submit">
</form>
</body>
</html>
```

login.jsp file

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
</head>
<body>
<%
    String usr = request.getParameter("usr");
    String pass = request.getParameter("pass");

    Cookie c1 = new Cookie("user", usr);
    Cookie c2 = new Cookie("password", pass);

    c1.setMaxAge
    response.addCookie(c1);
```

```
        response.addCookie(c2);
    %>
<a href="display.jsp">Click Here</a>
</body>
</html>
```

display.jsp file

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
</head>
<body>
<%
    Cookie[] c = request.getCookies();
    for(Cookie ck : c)
    {%>
        <%=ck.getName()%>
        <%=ck.getValue()%>

    <%}%>

</body>
</html>
```

5b

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
```

```
</head>
<form action = "error.jsp" method = "GET">
<body>
first name: <br/><input type = "text" name = "fname">
    <br />
last name: <br/><input type = "text" name = "lname" />
    <br/>
age:<br/><input type = "text" name = "age" />
    <br/>
    <input type = "submit" value = "Go" />
</form>
</body>
</html>
```

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8" errorPage="/error1.jsp"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
```

```
<%--accept the parameter --%>
<%
String fname = request.getParameter("fname");
String lname = request.getParameter("lname");
int age = Integer.parseInt(request.getParameter("age"));%>
<%if(fname.isBlank() || lname.isBlank() || age==0){
    throw new Exception("file are empty");
}
else{%>
    first name:<%=fname %><br>
    last name:<%=lname %><br>
    Age:<%=age %>
```

```
<% } %>
</body>
</html>
```

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>
<body>
<%out.print("Name, Last Name and Age can't be empty, please enter the deatils");%>
</body>
</html>
```

3a:

```
package prac3a;

import java.sql.*;
import java.util.Scanner;
public class prac3 {
    Connection con = null;
    Scanner sc = new Scanner(System.in);
    public Connection getConnect(){
        try{
            Class.forName("com.mysql.cj.jdbc.Driver");
            con = DriverManager.getConnection("jdbc:mysql://localhost:3306/student","root","root");
        }
        catch(Exception e){
            System.out.println(e);
        }
    }
}
```

```

        return con;
    }

    public void insert(String usn,String name,String address){

        try{
            Scanner s = new Scanner(System.in);
            con = getConnect();
            Statement st = con.createStatement();

            String query = "insert into student values('"+usn+"','"+name+"','"+address+"')";
            st.executeUpdate(query);
            con.close();

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

    }

    public void display(){
        try {
            con = getConnect();
            Statement st = con.createStatement();
            ResultSet rs = st.executeQuery("select * from student");
            while(rs.next()){
                System.out.println(" "+rs.getString(1)+" "+rs.getString(2)+" "+rs.getString(3));
            }
            con.close();
        }
        catch(Exception e){
            System.out.println(e);
        }
    }

    public void delete(String usn){

        try{

```



```

        con = getConnect();
        Statement st = con.createStatement();

        String query = "delete from student where usn = '"+usn+"'";
        st.executeUpdate(query);
        con.close();

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

}

public void update(String usn,String name){

    try{
        con = getConnect();
        Statement st = con.createStatement();
        String query = "update student set name = '"+name+"'where usn = '"+usn+"'";
        st.executeUpdate(query);
        con.close();
    }
    catch(Exception e){
        System.out.println(e);
    }

}

public static void main(String[] args){
    String usn, name, address;
    prac3 obj = new prac3();
    while(true){

        Scanner s= new Scanner(System.in);
        System.out.println("1:insert 2:update 3:delete 4:display");
        int n = sc.nextInt();
        if(n == 1) {

```

```
    System.out.println("enter usn:");
    usn = s.next();
    System.out.println("enter name:");
    name = s.next();
    System.out.println("enter address");
    address= s.next();
    obj.insert(usn, name, address);;
}
```

```
else if(n == 2) {
```

```
    System.out.println("enter usn:");
    usn = sc.next();
    System.out.println("enter name:");
    name = sc.next();
    obj.update(usn, name);;
}
```

```
else if(n == 3) {
```

```
    System.out.println("enter usn:");
    usn = sc.next();
    obj.delete(usn);
}
```

```
else if(n == 4)
```

```
    obj.display();
```

```
else
```

```
    System.out.println("failed");
```

```
System.out.println("do you want to continue? 1 for yes");
```

```
n = sc.nextInt();
```

```
if(n==1)
```

```
    continue;
```

```
else
```

```
    break;
```

```
}
```

```
}
```

```
}
```

3B:

```
import java.sql.*;
import java.util.Scanner;
```

```
class myException extends Exception
{
    public String message="";
    myException(String myException){
        System.out.println(myException);
    }
}
```

```
public class JDBC {
    Connection con = null;

    public Connection getconnect() {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            con = DriverManager.getConnection("jdbc:mysql://
localhost:3306/1RV21MC083","root","Ranjith123#");
            // Database: 1RV21MC083, Username: root, Password: Ranjith123#
        }
        catch(Exception e) {
            System.out.println(e);
        }

        return con;
    }
}
```

```
public void insert(String tname, String usn, String name, String address){
    try {
        con = getconnect();
        PreparedStatement ps = con.prepareStatement("insert into "+tname+"
values('"+usn+"','"+name+"','"+address+"')");
```

```

        ps.executeUpdate("insert into "+tname+"
values('"+usn+"','"+name+"','"+address+"')");
    }
    catch(SQLException e)
    {
        System.out.println(e);
    }

    catch(Exception e) {
        System.out.println(e);
    }
    finally {
        try {
            con.close();
        }
        catch(SQLException e)
        {
            System.out.println(e);
        }

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

    }

}

```

```

public void display(String tname) throws myException {
    try {
        con = getconnect();
        PreparedStatement ps = con.prepareStatement("select * from "+tname);
        Statement st = con.createStatement();
        ResultSet rs= ps.executeQuery("select * from "+tname);
        System.out.println("  USN      NAME  ADDRESS");
        while(rs.next())

```

```

        {
            System.out.println(rs.getString(1)+" "+rs.getString(2)+" "+rs.getString(3));
        }
    }

    catch(SQLException e) {
        System.out.println(e);
    }
    catch(Exception e) {
        System.out.println(e);
    }
    finally {
        try {
            con.close();
        }
        catch(SQLException e)
        {
            System.out.println(e);
        }

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

public void update(String tname, String usn, String name) {
    try {
        con = getconnect();
        PreparedStatement ps = con.prepareStatement("update "+tname+" set
name='"+name+"' where usn='"+usn+"'");
        ps.executeUpdate("update "+tname+" set name='"+name+"' where usn='"+usn+"'");

    }
    catch(SQLException e)
    {

```

```

        System.out.println(e);
    }

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

    finally {
        try {
            con.close();
        }
        catch(SQLException e)
        {
            System.out.println(e);
        }

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

    }

}

public void delete(String tname,String usn) {
    try {
        con = getconnect();
        PreparedStatement ps = con.prepareStatement("delete from "+tname+" where
usn='"+usn+"'");
        ps.executeUpdate("delete from "+tname+" where usn='"+usn+"'");
    }
    catch(SQLException e)
    {
        System.out.println(e);
    }

    catch(Exception e) {

```

```

        System.out.println(e);
    }
    finally {
        try {
            con.close();
        }
        catch(SQLException e)
        {
            System.out.println(e);
        }

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

```

```

public static void main(String[] args) {
    String tname,usn,name,address;
    Scanner sc = new Scanner(System.in);
    JDBC jd = new JDBC();

    while(true) {
        System.out.println("\n 0. Exit \n 1. Insert \n 2. Display \n 3. Update Name \n 4.
Delete \n Enter Your Choice: ");
        int ch = sc.nextInt();

        if(ch==0)
            System.exit(0);

        else if(ch==1) {
            try
            {

                Scanner s = new Scanner(System.in);
                System.out.println("Enter Table Name: ");
            }

```

```

tname= s.nextLine();
System.out.println("Enter USN: ");
usn= s.nextLine();
System.out.println("Enter Student Name: ");
name= s.nextLine();
System.out.println("Enter Address: ");
address= s.nextLine();
if(tname.equalsIgnoreCase("") || usn.equalsIgnoreCase("") ||
name.equalsIgnoreCase("") || address.equalsIgnoreCase(""))
{
    throw new myException("Please Enter all the fields");
}
jd.insert(tname, usn, name, address);
}
catch(myException e)
{
    System.out.println(e);
}
}

else if(ch==2) {
    try {
        Scanner ss = new Scanner(System.in);
        System.out.println("Enter Table Name: ");
        tname= ss.nextLine();
        if(tname.equalsIgnoreCase(""))
        {
            throw new myException("Please Enter the table name");
        }
        jd.display(tname);
    }
    catch(myException e)
    {
        System.out.println(e);
    }
}
}

```



```

else if(ch==3) {
    try {
        Scanner s1 = new Scanner(System.in);
        System.out.println("Enter Table Name: ");
        tname= s1.nextLine();
        System.out.println("Enter USN: ");
        usn= s1.nextLine();
        System.out.println("Enter Student Name to Update: ");
        name= s1.nextLine();
        if(tname.equalsIgnoreCase("") || usn.equalsIgnoreCase("") ||
name.equalsIgnoreCase(""))
        {
            throw new myException("Please Enter all the fields");
        }
        jd.update(tname, usn, name);
    }
    catch(myException e)
    {
        System.out.println(e);
    }
}

```

```

else if(ch==4) {
    try {
        Scanner s2 = new Scanner(System.in);
        System.out.println("Enter Table Name: ");
        tname= s2.nextLine();
        System.out.println("Enter USN: ");
        usn= s2.nextLine();
        if(tname.equalsIgnoreCase("") || usn.equalsIgnoreCase(""))
        {
            throw new myException("Please Enter all the fields");
        }
        jd.delete(tname, usn);
    }
    catch(myException e)

```

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

```
}  
else  
    System.out.println("Invalid Choice");
```

```
}
```

```
}
```

```
}
```