Week 6

Caluclator.html

```html
<!DOCTYPE html>
<html>
<head>
</head>
<body>
<form action="CALUCLATOR" method="get">
<label>First Number : </label>
<input type="text" name="fno" /><br><br>
<label>Second Number : </label>
<input type="text" name="sno" /><br>
<input type="radio" name="ans" value="add" />Addition<br>
<input type="radio" name="ans" value="sub" />Subtraction<br>
<input type="radio" name="ans" value="mul" />Multiplication<br>
<input type="radio" name="ans" value="div" />Division<br>
<input type="radio" name="ans" value="exp" />e^x<br>
<input type="submit" value="Submit" /><br>
</form>
</body>
</html>
```

CALUCLATOR.java

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

```java
@WebServlet("/CALUCLATOR")
public class CALUCLATOR extends HttpServlet {

  protected void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException {
  // TODO Auto-generated method stub
  PrintWriter pw=res.getWriter();
  int x= Integer.parseInt(req.getParameter("fno"));
  int y=Integer.parseInt(req.getParameter("sno"));
  String ans=req.getParameter("ans");
  if(ans.equals("add"))
  {
  pw.println("<h3> Addtion = "+(x+y)+"</h3>");
  }
  else if(ans.equals("sub"))
  {
  pw.println("<h3> Subtraction = "+(x-y)+"</h3>");
  }
  else if(ans.equals("mul"))
  {
  pw.println("<h3> Multiplication = "+(x*y)+"</h3>");
  }
  else if(ans.equals("div"))
  {
  pw.println("<h3> Division = "+(x/y)+"</h3>");
  }
  else if(ans.equals("exp"))
  {
  pw.println("<h3> e^"+x+" = "+(Math.exp(x))+"</h3>");
  }}
  protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {
  doGet(request, response);
  }}
```
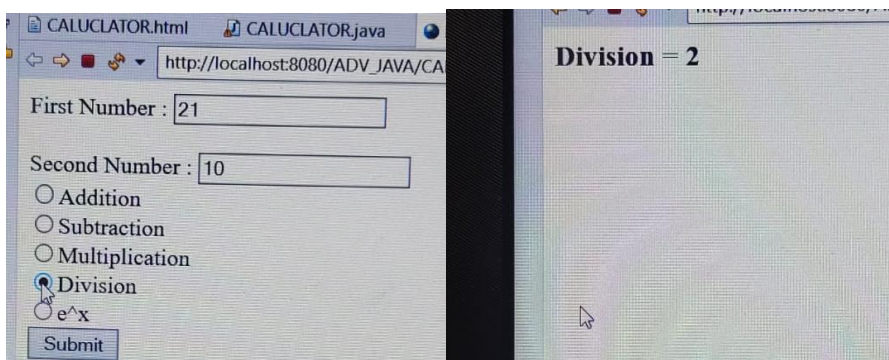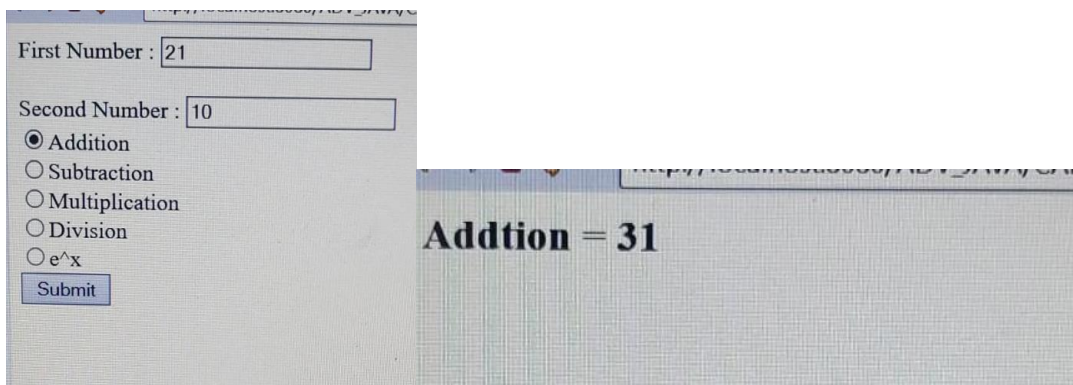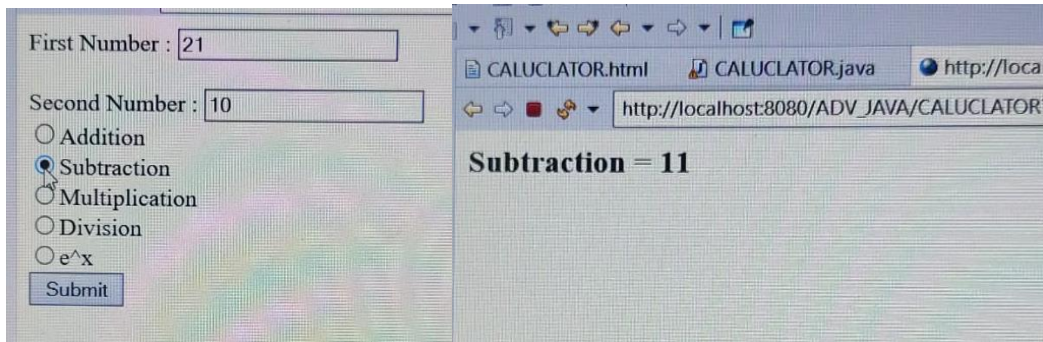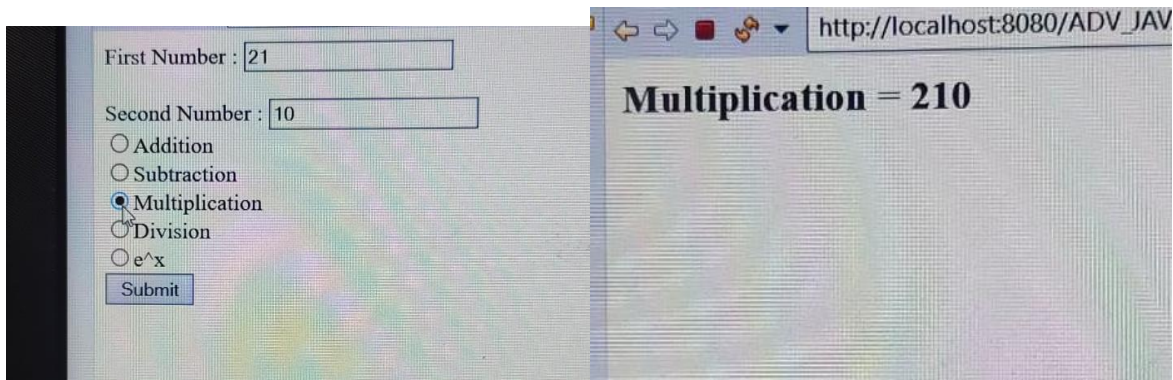
Output :

First Number : 21

Second Number : 10
○ Addition
○ Subtraction
◉ Multiplication
○ Division
○ e^x
Submit

Multiplication = 210

First Number : 21

Second Number : 10
○ Addition
◉ Subtraction
○ Multiplication
○ Division
○ e^x
Submit

CALUCLATOR.html   CALUCLATOR.java   http://local

Subtraction = 11

First Number : 21

Second Number : 10
◉ Addition
○ Subtraction
○ Multiplication
○ Division
○ e^x
Submit

Addtion = 31

CALUCLATOR.html   CALUCLATOR.java

First Number : 21

Second Number : 10
○ Addition
○ Subtraction
○ Multiplication
◉ Division
○ e^x
Submit

Division = 2

First Number : 21

e^21 = 1.31881573448321146E9

Second Number : 10

⚪ Addition
⚪ Subtraction
⚪ Multiplication
⚪ Division
🔘 e^x

[Submit]

2)

Cookies.html

```html
<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<form action="Cookies" method="get">

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

</form>

</body>

</html>
```

Cookies.java

```java
import java.io.IOException;

import java.io.PrintWriter;


import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;
```

```java
import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;


@WebServlet("/Cookies")

public class Cookies extends HttpServlet {


    protected void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException {
    // TODO Auto-generated method stub
    Cookie cook1= new Cookie("No1","hello1");

    Cookie cook2= new Cookie("No2","hello2");

    Cookie cook3= new Cookie("No3","hello3");

    Cookie cook4= new Cookie("No4","hello4");

    cook1.setMaxAge(20);

    cook2.setMaxAge(20);

    res.addCookie(cook1);

    res.addCookie(cook2);

    res.addCookie(cook3);

    res.addCookie(cook4);

    res.setContentType("text/html");

    PrintWriter out=res.getWriter();

    Cookie[] cook=req.getCookies();


    String s="<html>"+"<body>"+"<h1>Cookies</h1><br>"

    +"<table>"+"<tr><th> Cookie Name</th><th>Value</th></tr>";

    String s1="</table>"+"</body>"+"</html>";


    for(int i=0;i<cook.length;i++)

    {

    s=s+"<tr><td>"+cook[i].getName()+"</td><td>"

    +cook[i].getValue()+"</td></tr>";

    }

    s=s+s1;
```

```
    out.println(s);


    }




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

    // TODO Auto-generated method stub

    doGet(request, response);

    }


}
```
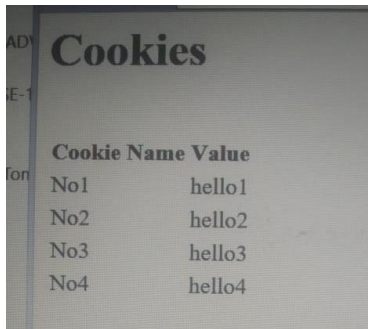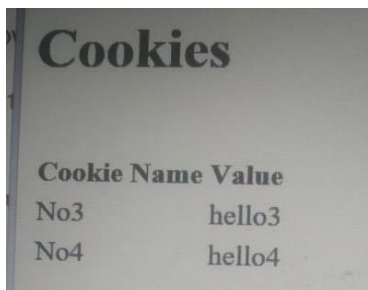
Output :

All the cookies when the servlet is loaded for the first time

After Refresh

3)

Session.html

```html
<!DOCTYPE html>
<html>
<head>
</head>
<body>
Session Handling DEMO<br>
<a href='SESSION'>VISIT MY WEBSITE</a>
</body>
</html>
```

Session.java

```java
import java.io.IOException;
import java.io.PrintWriter;
import java.util.Date;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
@WebServlet("/SESSION")
public class SESSION extends HttpServlet {
	protected void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException {
		// TODO Auto-generated method stub

		res.setContentType("text/html");
		PrintWriter pw = res.getWriter();
```

```java
HttpSession session = req.getSession(true);

Date createTime = new Date(session.getCreationTime());

Date lastAccessTime = new Date(session.getLastAccessedTime());

String title = "Welcome Back to my website";

int visitCount = 0;

String userID=""; // Check if this is new comer on your web page.

if (session.isNew()){

pw.println("Welcome to My WebSite");

session.setAttribute("userID", "ABCD");

}

else

{

pw.println("Welcome Back to My WebSite");

visitCount = (Integer)session.getAttribute("visitCount");

visitCount = visitCount + 1;

userID = (String)session.getAttribute("userID");

}

session.setAttribute("visitCount", visitCount);


pw.println("<h1>Session Infomation</h1>" + "<br/>"+

"ID : " + session.getId() + "<br/>"+ "Creation Time : " + createTime + "<br/>"+ "Time of Last Access :" +
lastAccessTime + "<br/>"+ "User ID : " + userID + "<br/>"+ "Number of visits : " + visitCount + "<br/>" );



}

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

// TODO Auto-generated method stub

doGet(request, response);

}


}
```
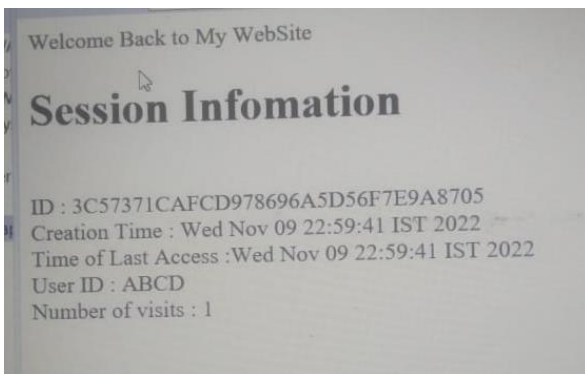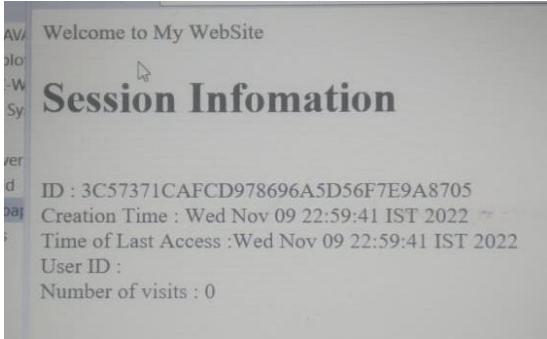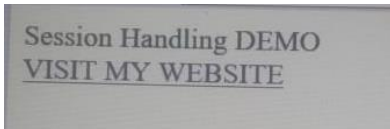
Output :

Session Handling DEMO
VISIT MY WEBSITE

Welcome to My WebSite

Session Infomation

ID : 3C57371CAFCD978696A5D56F7E9A8705
Creation Time : Wed Nov 09 22:59:41 IST 2022
Time of Last Access :Wed Nov 09 22:59:41 IST 2022
User ID :
Number of visits : 0

Welcome Back to My WebSite

Session Infomation

ID : 3C57371CAFCD978696A5D56F7E9A8705
Creation Time : Wed Nov 09 22:59:41 IST 2022
Time of Last Access :Wed Nov 09 22:59:41 IST 2022
User ID : ABCD
Number of visits : 1

4)

Login.html

```
<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<form action="Login" method="post">

<label>UserName : </label>

<input type="text" name="uname" /><br><br>

<label>Password  : </label>
```

```html
<input type="password" name="pass" /><br><br>

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


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

Login.java

```java
import java.io.IOException;

import java.io.PrintWriter;

import java.sql.*;

import java.sql.ResultSet;

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("/Login")

public class Login extends HttpServlet {

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

  // TODO Auto-generated method stub

  doPost(request, response);

  }

  protected void doPost(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException {

  res.setContentType("text/html");

    PrintWriter out = res.getWriter();

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

  String pass=req.getParameter("pass");

    Statement pstmt;

    try {

        Class.forName("com.mysql.cj.jdbc.Driver").newInstance();
```

```java
Connection conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/adv_java","root","gowda@406");

        pstmt = conn.createStatement();

    ResultSet rs=pstmt.executeQuery("SELECT * FROM register where uname='"+uname+"' and pass='"+pass+"'");

    if(rs.next()) {

        out.println("Welcome "+uname);


    }else

    {

        out.println("Invlaid Username and Password ");

    }

     conn.close();

   } catch (Exception e) {

        System.out.println("ERROR"+e);

            out.close();



 }



}
}
```
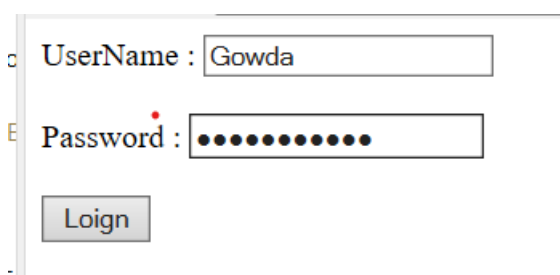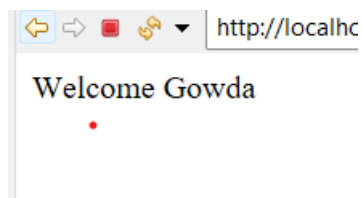
Output :

UserName : Gowda

Password : ●●●●●●●●●●

Loign

Invlaid Username and Password

UserName : Gowda

Password : ●●●●●●●●●●

Loign

Invlaid Username and Password