Programme Name: B.SC. (H) COMPUTER SCIENCE

SEMESTER-V

Paper Title: INTERNET TECHNOLOGY PRACTICAL

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LAB ASSIGNMENTS – Java

QUES 1 :

```java
import java.util.ArrayList;

import java.util.Random;

import java.util.Scanner;

import java .util.Scanner;


class Account

{

    Random no=new Random();

    private int acc;

    private int bal;

    private String name;

    private ArrayList<Account> accounts=new ArrayList<Account>();


        Account(int x)

        {

    acc=x;

    bal=0;

                accounts.add(new Account("ankur",acc));

                acc++;

                accounts.add(new Account("keshav",acc));

                acc++;

    }


        Account(String name,int acc)

        {

    this.name=name;

    this.acc=acc;

    bal=0;
```

```java
        }

        public void createexist()
        {
                int ch;
                do{
                        System.out.println("--- Menu ---");
                        System.out.println("1.Get Balance");
                        System.out.println("2.Withdraw from bank");
                        System.out.println("3.Deposit in Account");
                        System.out.println("4.Go to bank menu");
                        System.out.println("Enter Your Choice:");


                        Scanner sc = new Scanner(System.in);
                        ch = sc.nextInt();
                        switch(ch)
                {
                case 1: this.getBal();
                        break;
                                case 2: this.withdrawl();
                                        break;
                        case 3: this.deposit();
                        break;
                                case 4: menu();
                                        break;
                                default: System.out.println("Wrong Choice");
                        }

                }while(ch!=9);
        }


        public void menu()
```

```java
    {
int ch;
        do{
            System.out.println("--- Menu ---");
            System.out.println("1.Create New Account");
            System.out.println("2.Show Total Bank Balance");
            System.out.println("3.Show Max and Min Account Balance Holders");
            System.out.println("4.Check for Given Balance");
            System.out.println("5.Check for Given Account");
            System.out.println("6.check existing account");
            System.out.println("7.Exit");
            System.out.println("Enter Your Choice:");

            Scanner sc = new Scanner(System.in);
            ch = sc.nextInt();
            switch(ch)
    {
                case 1: this.createAccount();
                            break;
                case 2: this.showBankBal();
                            break;
                case 3: this.maxMin();
                            break;
                case 4: this.checkBal();
                            break;
                case 5: this.checkAccount();
                            break;
                case 6: this.createexist();
                            break;
                case 7: System.exit(0);

                default: System.out.println("Wrong Choice");
```

```java
        }
            }while(ch!=9);
}


    public void getBal()
    {
System.out.println("Enter Your Account Number : ");
Scanner inp=new Scanner(System.in);
int ac=inp.nextInt();
int f=1;


            for (int i = 0; i <accounts.size(); i++)
            {
                    if(ac==accounts.get(i).acc)
                    {
        f=0;
        System.out.println("Your Account Balance is : " + accounts.get(i).bal);
        break;
    }
                    else
                    {
        f=1;
                    }
    }


            if(f==1)
            {
    System.out.println("Account not found");
    }
}


    public void withdrawl()
```

```java
{
    System.out.println("Enter Your Account Number : ");
    Scanner inp=new Scanner(System.in);
    int ac=inp.nextInt();
    int f=1;

            for (int i = 0; i <accounts.size(); i++)
            {
                    if(ac==accounts.get(i).acc)
                    {
        int ac1=i;
        f=0;
        System.out.println("Enter withdrawl amount : ");
        int withdraw=inp.nextInt();

                            if(withdraw>accounts.get(i).bal)
                            {
        System.out.println("Insufficient Balance");
    }
                            else if(withdraw<=0)
                            {
        System.out.println("Wrong withdrawl amount");
    }
                            else
                            {
                                    accounts.get(ac1).bal-=withdraw;
        System.out.println("Your Updated Balance is : "+  accounts.get(ac1).bal);
    }
    break;
                    }
                    else
                    {
```

```java
                                f=1;
                            }
                        }


                if(f==1)
                {
    System.out.println("Account not found");
  }
}


    public void deposit()
    {
System.out.println("Enter Your Account Number : ");
Scanner inp=new Scanner(System.in);
int ac=inp.nextInt();
int f=1;


                for (int i = 0; i <accounts.size(); i++)
                {
                        if(ac==accounts.get(i).acc)
                        {
                                f=0;
                                int ac1=i;
                                System.out.println("Enter the amount to be deposited : ");
                                int deposit=inp.nextInt();

                                if(deposit<=0)
                                {
                                        System.out.println("Wrong deposit amount");
                    }
                                else if(deposit>10000)
                                {
```

```java
                                    int a=tax_red(deposit);

                                    accounts.get(ac1).bal+=a;

                                    System.out.println("Your Updated Balance is : "+
accounts.get(ac1).bal);

                            }
                            else
                            {
                                    accounts.get(ac1).bal+=deposit;

                                    System.out.println("Your Updated Balance is : "+
accounts.get(ac1).bal);

                            }
                            break;
                    }
                    else
                    {
        f=1;
                    }
            }


            if(f==1)
            {
    System.out.println("Account not found");
  }
 }


      public int tax_red(int d)
      {
   int x=(int)(d-(.02*d));
   return x;
 }


      void createAccount()
      {
```

```java
        System.out.println("Enter Your name");

        Scanner sc = new Scanner(System.in);

        String name=sc.nextLine();

        this.acc++;

                accounts.add(new Account(name,this.acc));

        System.out.println("Welcome " +name+" Your Account is successfully created with acc no : " +
this.acc);

        }


        private void showBankBal()

        {

                int total=0;

                for (int i = 0; i <accounts.size(); i++)

                {

                        //System.out.println(accounts.get(i).bal);

                        total+=accounts.get(i).bal;

                }

                System.out.println("Total Amount in bank : "+total);

        }


        private void maxMin()

        {

                int minValue=accounts.get(0).bal;

                for(int i=1;i<accounts.size();i++)

                {

                        if(accounts.get(i).bal< minValue)

                        {

                                minValue = accounts.get(i).bal;

                        }

        }

                int maxValue=accounts.get(0).bal;

                for(int i=1;i<accounts.size();i++)
```

```java
                {
                        if(accounts.get(i).bal> maxValue)
                        {
                                maxValue = accounts.get(i).bal;
                        }
                }
                System.out.println("Min Balance in Bank : "+minValue);
                System.out.println("Max Balance in Bank : "+maxValue);
        }


        private void checkBal()
        {
System.out.println("Enter the amount to be checked..?");
Scanner sc=new Scanner(System.in);
int b=sc.nextInt();
int count=0;

                for(int i=1;i<accounts.size();i++)
                {
                        if(accounts.get(i).bal>= b)
                        {
                                count++;
                }
        }
System.out.println("Total accounts with balance greater than or equal to "+b+" are : "+count);
}


        private void checkAccount()
        {
System.out.println("Enter Your Account Number : ");
Scanner inp=new Scanner(System.in);
int ac=inp.nextInt();
```

```java
        int f=1;

                    for (int i = 0; i <accounts.size(); i++)

                    {

                            if(ac==accounts.get(i).acc)

                            {

        f=0;

        System.out.println("Your account was found with Account Balance : " + accounts.get(i).bal);

        break;

      }

                            else

                            {

        f=1;

                            }

    }

                    if(f==1)

                    {

      System.out.println("Account not found");

    }

  }

}


public class Ques1

{

  public static void main(String[] args)

  {

    int ch;

    Account bk=new Account(2000);

    Scanner sc=new Scanner(System.in);

    System.out.println("1.Existing account");

    System.out.println("2.Bank ");

    ch=sc.nextInt();
```

```java
                if(ch==1)
      {

         bk.createexist();

      }

      else

      {

         bk.menu();

      }

   }

}
```

```java
import java.io.*;

import java.util.ArrayList;

import java.util.*;


abstract class Stack

{

        int top;

        Stack()

        {

                top = -1;

        }

        abstract void push(int paramInt);

        abstract int pop();

        abstract void display();

}


class staticStack extends Stack

{

        int[] arr = new int[20];

        int size;
```

```java
staticStack(int paramInt)
{
        super();
}


void push(int paramInt)
{
        if (super.top == size - 1)
        {
                System.out.println("overflow");
        }
        else
        {
                super.top++;
                arr[super.top]= paramInt;
        }
}


int pop()
{
        if (super.top == -1)
        {
                return -1;
        }
        else
        {
                int r= arr[super.top];
                super.top--;
                return r;
        }
}
```

```java
        void display()

        {

                System.out.print("The Stack is : ");

                for (int i = 0; i <= super.top; i++)

                {

                        System.out.print(arr[i] + " ");

                }

                System.out.println();

        }

}


class dynamicStack extends Stack

{

        ArrayList<Integer> arr;

        dynamicStack()

        {

                arr = new ArrayList<Integer>();

        }


        void push(int paramInt)

        {

                super.top++;

                arr.add(Integer.valueOf(paramInt));

        }


        int pop()

        {

                if (super.top == -1)

                {

                        return -1;

                }

                else
```

```java
            {
                    int r = ((Integer)arr.remove(top)).intValue();

                    super.top--;

                    return r;

            }

        }


        void display()

        {

                System.out.print("The Stack is : ");

                for (int i = 0; i <arr.size(); i++)

                {

                        System.out.print(arr.get(i) + " ");

                }

                System.out.println();

        }

}


public class Ques2

{

        public static void main(String []args)

        {

                Scanner localScanner = new Scanner(System.in);

                System.out.println("Enter");

                System.out.println("1.staticStack");

                System.out.println("2.dynamicStack");

                System.out.println("3.Exit");

                int m = localScanner.nextInt();


                switch (m)

                {

                        case 1: System.out.println("Enter array size");
```

```java
                    int i3 = localScanner.nextInt();

                    staticStack localstaticStack = new staticStack(i3);

                    System.out.println("Enter");

                    System.out.println("1.Push");

                    System.out.println("2.Pop");

                    System.out.println("3.Display");

                    int i4;

                    do{

                            System.out.println("Enter your choice");

                            int i = localScanner.nextInt();


                            switch (i)

                            {

                                    case 1: System.out.println("Enter a number to be
pushed into the stack");

                                            int j = localScanner.nextInt();

                                            localstaticStack.push(j);

                                            break;


                                    case 2: int k = localstaticStack.pop();

                                            if (k == -1)

                                            {

        System.out.println("Underflow");

                                            }

                                            else

                                            {

                                                    System.out.println("Number
popped =" + k);

                                            }

                                            break;

                                    case 3: localstaticStack.display();

                            }
```

```java
                                System.out.println("Enter 0 if you want to continue");

                                i4 = localScanner.nextInt();

                        } while (i4 == 0);
                        break;


                case 2: dynamicStack localdynamicStack = new dynamicStack();

                        System.out.println("Enter");

                        System.out.println("1.Push");

                        System.out.println("2.Pop");

                        System.out.println("3.Display");


                        for (;;)
                        {
                        System.out.println("Enter your choice");

                        int n = localScanner.nextInt();


                        switch (n)
                        {
                                case 1: System.out.println("Enter a number to be pushed into
the stack");

                                        int i1 = localScanner.nextInt();

                                        localdynamicStack.push(i1);

                                        break;
                                case 2: int i2 = localdynamicStack.pop();

                                        if (i2 == -1)

                                        {

                                                System.out.println("Underflow");

                                        }

                                        else

                                        {

                                                System.out.println("Number popped ="
+ i2);
```

```
                                    }
                                        break;
                    case 3: localdynamicStack.display();
                }

                System.out.println("Enter 0 if you want to continue");
                int i5 = localScanner.nextInt();
                if (i5 != 0)
                {
                        break;
                }
            }
        }
    }
}
```

LAB ASSIGNMENTS - JavaBeans

QUES 1 : Implement Student JavaBean using Serializability Interface.

Code :

//Student.html

```html
html>
  <head>
    <title>JSP Lab Assignment</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body bgcolor="#E6E6FA">
    <center>
    <fieldset>
      <h2><i><u>Java Beans Lab Assignment Question 1</u></i></h2>
<form action="Student.jsp" method="post">
    Enter Name :<input type="text"  name="name" id="name" value=""/><br><br>
```

```html
            Enter Roll No :<input type="text"  name="roll" id="roll" value=""/><br><br>

            Enter Course :<input type="text"  name="course" id="course" value=""/><br><br>

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

      </form>

        </fieldset>

        </center>

    </body>

</html>
```

//Student.jsp

```jsp
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<html>

   <head>

      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

      <title>JSP Page</title>

   </head>

   <body bgcolor="#FFBEBC">

        <center>

          <fieldset>

      <jsp:useBean id="s" scope="session" class="JavaBeans.StudentBean"/>

      <jsp:setProperty name="s" property="*" />

      <br>

      Name : <jsp:getProperty name="s" property= "name" /><br>

      Roll No: <jsp:getProperty name="s" property= "roll" /><br>

      Course: <jsp:getProperty name="s" property= "course" /><br>

          </fieldset>

        </center>

   </body>

</html>
```

//StudentBean

```java
package JavaBeans;

import java.io.*;


public class StudentBean implements Serializable {
```

```java
private String name;

private int roll;

private String course;

public StudentBean(){

name =" ";

roll =0;

course =" ";

}


public String getName() {

   return name;

}


public void setName(String name) {

   this.name = name;

}


public int getRoll() {

   return roll;

}


public void setRoll(int roll) {

   this.roll = roll;

}


public String getCourse() {

   return course;

}


public void setCourse(String course) {

   this.course = course;

}
```

}

Program 2: Implement Employee JavaBean using Serializability Interface.

Code :

//Employee.html

```html
<html>
  <head>
    <title>JSP Lab Assignment</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body bgcolor="#E6E6FA">
    <center>
    <fieldset>
      <h2><i><u>Java Beans Lab Assignment Question 2</u></i></h2>
  <form action="Employee.jsp" method="post">
      Enter Name: <input type="text"  name="name" id="name" value=""/><br><br>
      Enter ID: <input type="text"  name="id" id="id" value=""/><br><br>
      Enter Department: <input type="text"  name="dept" id="dept" value=""/><br><br>
      <input type="submit" value="Submit"/>
  </form>
    </fieldset>
    </center>
  </body>
</html>
```

//Employee.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 bgcolor="#FFBEBC">
        <center>
            <fieldset>
    <jsp:useBean id="e" class="JavaBeans.EmployeeBean"  scope="session" />
    <jsp:setProperty name="e" property="*" />
    <br>
    Name : <jsp:getProperty name="e" property= "name" /><br>
    Roll No: <jsp:getProperty name="e" property= "id" /><br>
    Course: <jsp:getProperty name="e" property= "dept" /><br>
            </fieldset>
        </center>
    </body>
</html>
```

//EmployeeBean

```java
package JavaBeans;
import java.io.Serializable;
public class EmployeeBean implements Serializable {

    private String name;
    private int id;
    private String dept;
```

```java
    public EmployeeBean(){

    name =" ";

    id =0;

    dept =" ";

    }


    public String getName() {

        return name;

    }


    public void setName(String name) {

        this.name = name;

    }


    public int getId() {

        return id;

    }


    public void setId(int id) {

        this.id = id;

    }


    public String getDept() {

        return dept;

    }


    public void setDept(String dept) {

        this.dept = dept;

    }


}
```

Name : Mishika Rawat
Roll No: 7
Course: Consultancy

LAB ASSIGNMENTS - JDBC

Ques 1:

//JAVA CODE

```java
import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;


public class JDBC_2_Q3
{
    public static void main(String[] args)throws Exception
    {
        System.out.println("Enter Your Choice" );

        System.out.println("1. Find total number of students" );

        System.out.println("2. Print average marks for each subject input by user" );

        System.out.println("3. Find the name of student getting highest marks" );

        System.out.println("4. Find number of students getting first, second and third division" );
```

```java
    System.out.println("5. Find subject wise toppers" );

    System.out.println("6. Find the average marks" );

    System.out.println("7. Find the student getting second highest marks" );

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

Connection con;

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/it_gals","root", "root" );

BufferedReader br=new BufferedReader(new InputStreamReader(System.in));

int rowsUpd;

while(true)

{

    String s=br.readLine();

    if(s.startsWith("n")){

        break;

    }

    else{


        if(s.startsWith("1"))

        {

            PreparedStatement stmt=con.prepareStatement("select count(*) from student");

            ResultSet rs =stmt.executeQuery();

            while(rs.next()){

            System.out.println("Total number of students are :"+ rs.getInt(1));

            }

        }

        if(s.startsWith("2"))

        {

            PreparedStatement stmt=con.prepareStatement("select subject,avg(MARKS) from results
group by subject");

            ResultSet rs =stmt.executeQuery();

            while(rs.next()){

            System.out.println(rs.getString(1)+" "+rs.getInt(2));

            }
```

```java
        }
        if(s.startsWith("3"))
        {
            PreparedStatement stmt=con.prepareStatement("select name, rollno, sum(marks) from
student, results where roll=rollno group by rollno order by sum(marks) desc limit 1;");
            ResultSet rs =stmt.executeQuery();
            while(rs.next()){
            System.out.println(rs.getString(1)+" "+rs.getInt(2)+" "+rs.getInt(3));
            }
        }
        if(s.startsWith("4"))
        {
            PreparedStatement stmt=con.prepareStatement("select name, rollno, 'I' as 'Division' from
student, results where roll=rollno group by rollno having sum(marks)>=120 UNION select name, rollno,
'II' as 'Division' from student, results where roll=rollno group by rollno having sum(marks)>=80 AND
SUM(MARKS)<120 UNION select name, rollno, 'III' as 'Division' from student, results where roll=rollno
group by rollno having sum(marks)<80;");
            ResultSet rs =stmt.executeQuery();
            while(rs.next()){
            System.out.println(rs.getString(1)+" "+rs.getInt(2)+" "+rs.getString(3));
            }
        }
        if(s.startsWith("5"))
        {
            PreparedStatement stmt=con.prepareStatement("select name,rollno,subject,marks as
'Highest' from student, results where roll=rollno and marks in (select max(marks) from results group by
subject)");
            ResultSet rs =stmt.executeQuery();
            while(rs.next()){
            System.out.println(rs.getString(1)+" "+rs.getInt(2)+" "+rs.getString(3)+" "+rs.getInt(4));
            }
        }
        if(s.startsWith("6"))
        {
```

```java
        PreparedStatement stmt=con.prepareStatement("select subject,avg(marks) from results
group by subject");

        ResultSet rs =stmt.executeQuery();

        while(rs.next()){

        System.out.println(rs.getString(1)+" "+rs.getInt(2));

        }

        }

        if(s.startsWith("7"))

        {

        PreparedStatement stmt=con.prepareStatement("select name, rollno, sum(marks) from
student, results where roll=rollno group by rollno order by sum(marks) desc limit 1,1;");

        ResultSet rs =stmt.executeQuery();

        while(rs.next()){

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

        }

        }

    }

    System.out.println("Do you want to continue: y/n");

    }

    con.close();


}
```

Mishika_IT (run) ×   SQL 2 execution ×

```
Enter Your Choice
1. Find total number of students
2. Print average marks for each subject input by user
3. Find the name of student getting highest marks
4. Find number of students getting first, second and third division
5. Find subject wise toppers
6. Find the average marks
7. Find the student getting second highest marks
1
Total number of students are :4
Do you want to continue: y/n
y
Do you want to continue: y/n
2
Chemistry 92
English 99
Mathematics 98
Science 95
Do you want to continue: y/n
y
Do you want to continue: y/n
3
Diya 15 99
Do you want to continue: y/n
y
Do you want to continue: y/n
4
A 1 II
Diya 15 II
Chakshite 31 II
Mishika 50 II
Do you want to continue: y/n
y
Do you want to continue: y/n
5
Diya 15 English 99
Chakshite 31 Science 95
Mishika 50 Mathematics 98
A 1 Chemistry 92
Do you want to continue: y/n
y
Do you want to continue: y/n
6
Chemistry 92
English 99
Mathematics 98
Science 95
Do you want to continue: y/n
y
Do you want to continue: y/n
7
Mishika 50 98
Do you want to continue: y/n
n
BUILD SUCCESSFUL (total time: 1 minute 0 seconds)
```

Output

Ques 2:

//JAVA CODE

```java
import java.sql.*;

public class JDBC_Q1{

public static void main(String args[]){

try{

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

Connection conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/jdbc2","root", "root" );

CallableStatement stmt=conn.prepareCall("{call getTotal(?)}");

stmt.registerOutParameter(1,Types.INTEGER);

stmt.execute();

System.out.println("No of rows= "+stmt.getInt(1));

conn.close();

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

}

}
```

//Procedure

```sql
use jdbc2;

DELIMITER //

CREATE PROCEDURE getTotal

(

OUT total INT

)

BEGIN

SELECT COUNT(*) INTO total FROM student;

END

//

DELIMITER;
```

LAB ASSIGNMENTS - JavaScript

Ques 1:

```html
<!DOCTYPE html>

<html>

<head>

<script>

        function check()

        {

                var dob=document.getElementById("dob").value;

                var days = ['Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday'];

                var months = ['January', 'February', 'March', 'April', 'May', 'June', 'July', 'August',
'September', 'October', 'November', 'December'];

                var now = new Date(dob);

                alert('Your DOB is : ' + days[now.getDay()] + ' ' + months[now.getMonth()] + ' ' +
now.getDate() + ' ' + now.getFullYear());

        }

</script>

</head>

<body align= "center" style="background-color:#F5E1FD;">


<h1><p><i>Ques 1 of IT LAB Assignment</i></p></h1>


<form>

        Name: <input type="text" id="name" pattern="[A-Za-z]{1,}" title="Must be string"
required><br>

        Roll no: <input type="text" id="roll" pattern="[0-9]{7}" title="Must be a 7 digits" required><br>
```

DOB: <input type="date" id="dob" required>

<input type="submit" value="Submit" onclick="check()">

</form>

</body>

</html>

Ques 2:

<!DOCTYPE html>

<html>

<head>

<script>

function check()

{

var dob=document.getElementById("dob").value;

var days = ['Sunday', 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday'];

var months = ['January', 'February', 'March', 'April', 'May', 'June', 'July', 'August', 'September', 'October', 'November', 'December'];

var now = new Date(dob);

alert('Your DOB is : ' + days[now.getDay()] + ' ' + months[now.getMonth()] + ' ' + now.getDate() + ' ' + now.getFullYear());

}

</script>

</head>

<body align= "center" style="background-color:#F5E1FD;">
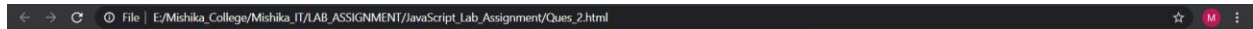
```html
<h1><p><i>Ques 1 of IT LAB Assignment</i></p></h1>


<form>

        Name: <input type="text" id="name" pattern="[A-Za-z]{1,}" title="Must be string"
required><br>

        Roll no: <input type="text" id="roll" pattern="[0-9]{7}" title="Must be a 7 digits" required><br>

        DOB: <input type="date" id="dob" required><br>

        <input type="submit" value="Submit" onclick="check()">

</form>


</body>

</html>
```


Ques 3:

```html
<!DOCTYPE html>

<head>

</head>

<body>

  <button type="button" onclick="  document.write(bubble([8,9,2,3,7,6,4,5,1]));">Convert</button>
```

```
<script>
    function bubble(arr) {
    var len = arr.length;


    for (var i = 0; i < len ; i++) {
     for(var j = 0 ; j < len - i - 1; j++){
     if (arr[j] > arr[j + 1]) {
      var temp = arr[j];
      arr[j] = arr[j+1];
      arr[j + 1] = temp;
      }
     }
     }
     return arr;
   }
   </script>
</body>
</html>
```

E:/Mishika_College/Mishika_IT/LAB_ASSIGNMENT/JavaScript_Lab_Assignment/Ques_3.html

This page says

Please enter your string :

563124

OK   Cancel

Ques 4:

```
<html>
      <head>
           <script>
                var arr=[];
                function spush()
                {
```

```javascript
				var a=document.getElementById('push');

				var b=document.getElementById('pop');

				arr.push(a.value);

				b.value=arr;

				a.value=" ";

		}

		function spop()

		{

				var len=arr.length;

				if(len==0)

				{

						alert("Stack Empty!");

				}

				else

				{

						arr.pop(len);

						var c=document.getElementById('pop');

						c.value=arr;

				}

		}

	</script>

</head>

<body align= "center" style="background-color:#F5E1FD;">

<h1><p><i>Ques 4 of IT LAB Assignment</i></p></h1>

	<form>

		<h2>ENTER NUMBER :<input type="text" name="push" id="push" /></h2>

		<h2>STACK:      <input type="text" name="pop" id="pop"/></h2>

		<h1><input type="button" value="push" onClick="spush()">

		<input type="button" value="pop" onClick="spop()"/>

		</h1>

	</form>

</body>
```

</html>
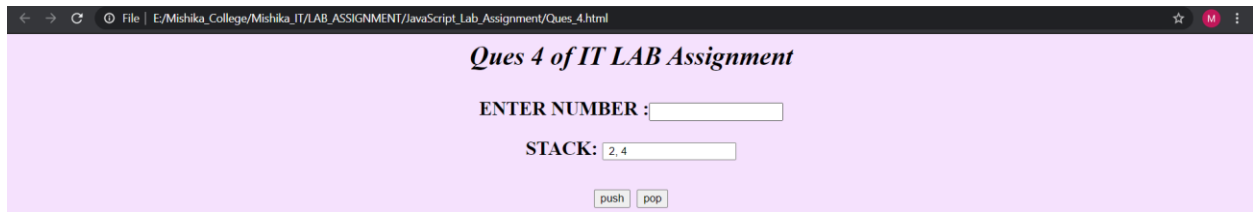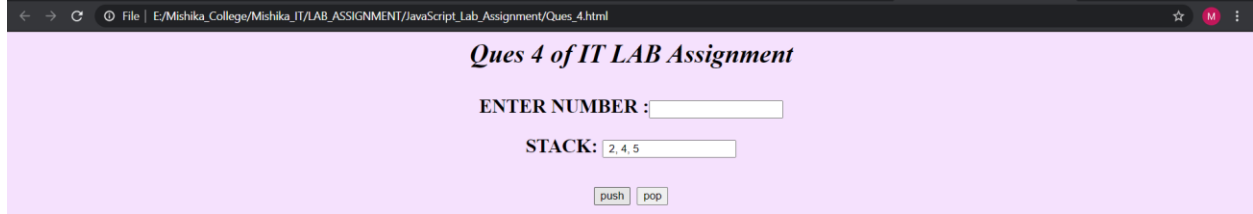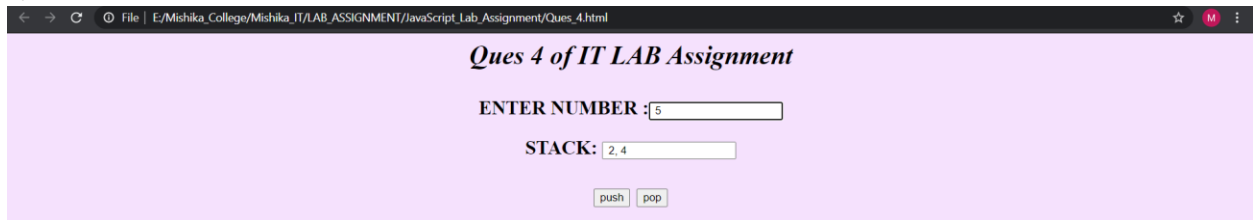
Ques 5:

<!DOCTYPE html>

<html>

       \<head>

           \<title>Ques 5\</title>

       \</head>

       \<body align = "center" onLoad="f()">

           \<div>

                \<body align= "center" style="background-color:#F5E1FD;">

                \<h1>\<p id ="text">\<i>Ques 5 of IT LAB Assignment\</i>\</p>\</h1>

                \</div>

                \<div>

                \<img src="noface.gif" id="im" height="150" width="250">\

                \<button onclick="g()" id="b1">Move Image\</button>

                \<button onclick="h()" id="b2">Stop Image\</button>

           \</div>

           \<script>

```javascript
var l=0;var w;
function f()
{
    setTimeout(()=>{document.getElementById("text").style.color=
"#957DAD";},6000);
}
function a()
{
    var img = document.getElementById("im");
    img.style.position="relative";
    img.style.left=(l)+"px";
    l+=10;
}
function g()
{
    w=setInterval("a()",500);
}
function h()
{
    clearInterval(w);
}
</script>
</body>
</html>
```

Ques 5 of IT LAB Assignment

Move Image | Stop Image
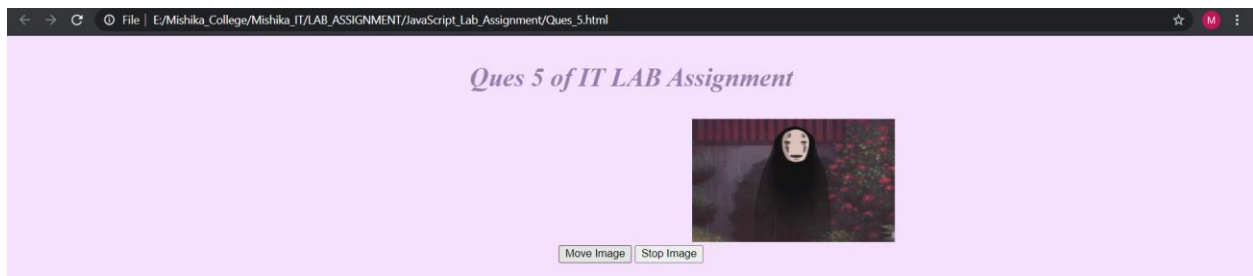
Ques 6:

<!DOCTYPE html>

<html>

<title>Participant Feedback Form</title>

<body bgcolor = "#FFEBCD">

<h1><u>3-days Python Workshop</u></h1>

<i>This is a feedback form</i>

<hr>

<form id="myForm" action= "" onsubmit="return validateForm()" required>

 <label for="fname">Name:</label>

 <input type="text" id="fname" name="fname">

 <hr>

 <label for="femail">Email:</label>

 <input type="text" id="femail" name="femail">

 <hr>

 <label for="fcllg">Name of College:</label>

 <input type="text" id="fcllg" name="fcllg">

 <hr>

 <label for="fyear">Year :</label>

 <input type="radio" id="year" name="year" value="1st year">

 <label for="1st year">1st Year</label>

 <input type="radio" id="Year" name="year" value="2nd Year">

 <label for="2nd Year">2nd Year</label>

 <input type="radio" id="Year" name="year" value="3rd Year">

```html
  <label for="3rd Year">3rd Year</label><br>

  <hr>

  <p>Session provided the expected information</p>

  <input type="checkbox" id="1">Agree</input>

  <input type="checkbox" id="1">Disgree</input><br>

  <hr>

  <p>Please suggest improvements (if any):</p>

  <input type="text" id="s">

  <input type="submit" value="Submit">
</form>
<script>
function validateForm() {
  var x = document.forms["myForm"]["fname"].value;
   var e = document.forms["myForm"]["femail"].value;
    var y = document.forms["myForm"]["year"].value;
   var a = document.forms["myForm"]["1"].value;
  if (x == "" || x == null) {
    alert("Name must be filled out");
    }
   if (e == "" || x == null) {
    alert("Email must be filled out");
    }
   if (y == "" || x == null) {
    alert("Year must be filled out");
    }
   if (a == "" || x == null) {
    alert("Expectations field must be filled out");
    }
}
</script>
</body>
</html>
```

3-days Python Workshop

This is a feedback form

Name: Mishika

Email: mishikarawat@gmail.com

Name of College: MSCW

Year :
- ○ 1st Year
- ○ 2nd Year
- ● 3rd Year

Session provided the expected information

☑ Agree ☐ Disgree

Please suggest improvements (if any):

[-] [Submit]

LAB ASSIGNMENTS – JDBC

Program 1 : Program 1: Display the pattern:

1

1 2

1 2 3

Take 'n' in a textbox from user. Display this pattern using

(a) Scriptlets

(b) <c:forEach> loop:

CODE :

//Ques1HTML.html

```html
<html>
  <head>
    <title>JSP Lab Assignment</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body bgcolor="#E6E6FA">
    <center>
    <fieldset>
      <h2><i><u>JSP Lab Assignment Question 1</u></i></h2>
```

```
    <form action="Ques1JSP.jsp" method="GET">

    Number:<input type="text" name="name" ><br/>

    <input type="submit" value="print">

    </form>

    </fieldset>

    </center>

  </body>

</html>
```

//Ques1JSP.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

        <head>

                <title> JSP program 1 </title>

        </head>

        <body bgcolor="#FFBEBC">

        <center>

          <fieldset>


                <% int n=Integer.parseInt((request.getParameter("name")));

                        int i,j;

                        for(i=1;i<=n;i++)

                        {

                                for(j=1;j<=i;j++)

                                        out.print(j);

                                out.println("<br>");

                        }

                %>

          </fieldset>

        </center>

          </body>

</html>
```

JSP Lab Assignment Question 1

Number: 5

print

```
1
12
123
1234
12345
```
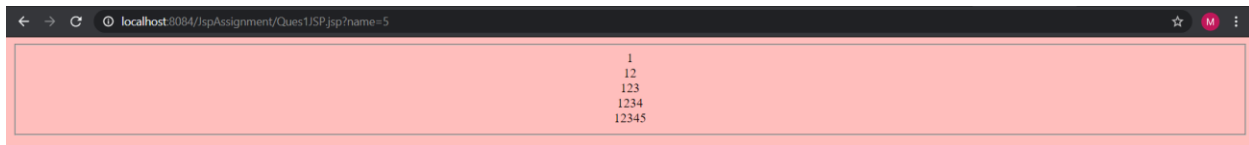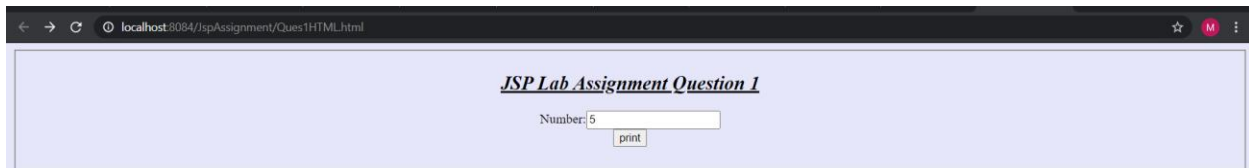
Program 2 : Make two files as follows:

a. main.html: shows 2 text boxes and 3 radio buttons with values "addition", "subtraction" and "multiplication"

b. operate.jsp: depending on what the user selects perform the corresponding function (Give two implementations: using request.getParameter() and using expression language)
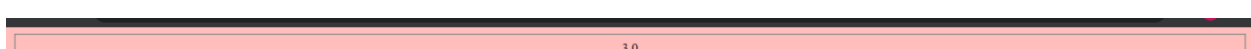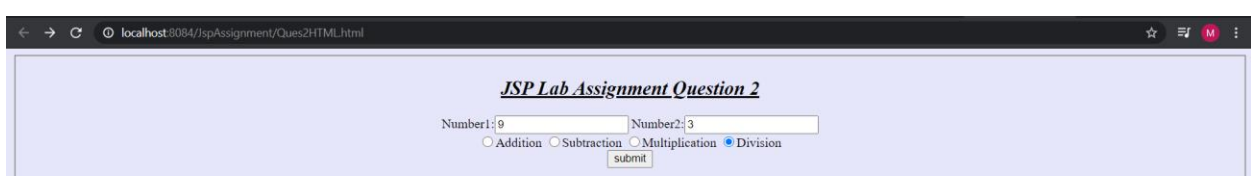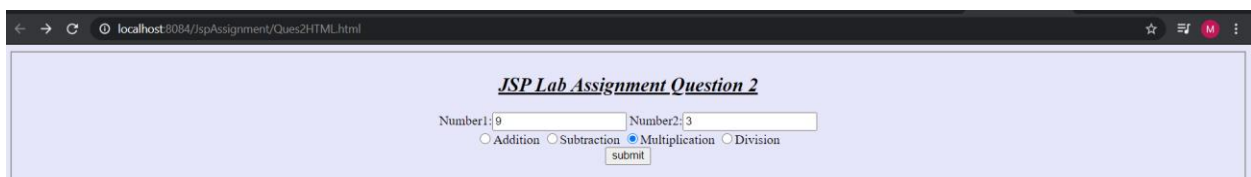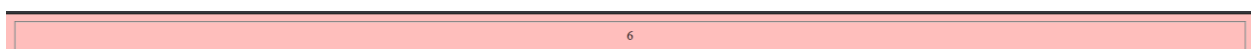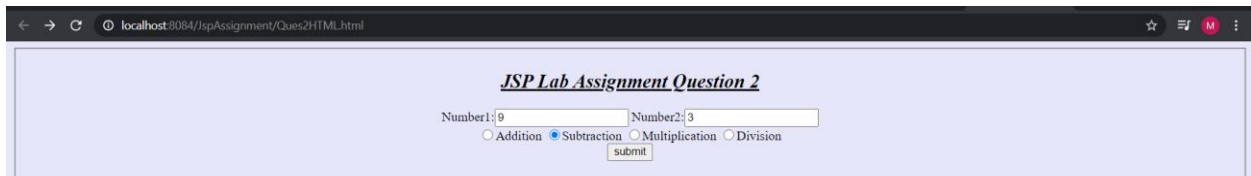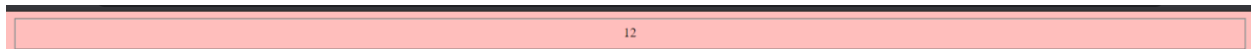
CODE :

//Ques2HTML.html

```html
<html>
  <head>
    <title>JSP Lab Assignment</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body bgcolor="#E6E6FA">
    <center>
    <fieldset>
      <h2><i><u>JSP Lab Assignment Question 2</u></i></h2>
<form action="Ques2JSP.jsp" method="get">
Number1:<input type="text" name="n1">
Number2:<input type="text" name="n2"><br/>
<input type="radio" name="op" value="1">Addition
<input type="radio" name="op" value="2">Subtraction
<input type="radio" name="op" value="3">Multiplication
<input type="radio" name="op" value="4">Division<br/>
<input type="submit" value="submit">
```
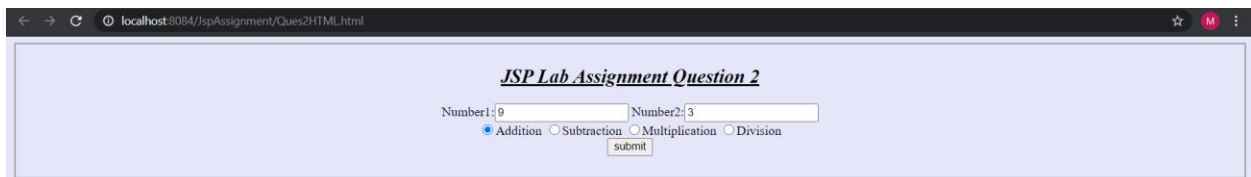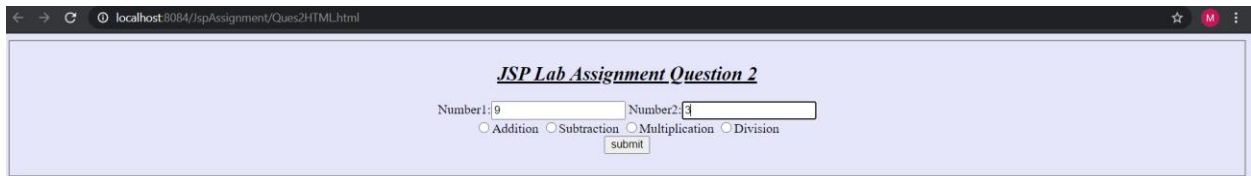
```
        </form>

      </fieldset>

        </center>

      </body>

</html>
```

//Ques2JSP.jsp

```
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

                <title> JSP program 2 </title>

        </head>

        <body bgcolor="#FFBEBC">

      <center>

        <fieldset>

  <c:set value="${param.n1}" var="num1"/>

  <c:set value="${param.n2}" var="num2"/>

  <c:set value="${param.op}" var="x"/>

  <c:choose>

    <c:when test="${x==1}">

      <c:out value="${num1+num2}"/>

    </c:when>

    <c:when test="${x==2}">

      <c:out value="${num1-num2}"/>

    </c:when>

    <c:when test="${x==3}">

      <c:out value="${num1*num2}"/>

    </c:when>

    <c:when test="${x==4}">

      <c:out value="${num1/num2}"/>

    </c:when>

    <c:otherwise>
```

```
        <c:out value="Wrong choice"/>

    </c:otherwise>

  </c:choose>

        </fieldset>

    </center>

      </body>

</html>
```

Program 3 : Validate User input entered in a form. The input must include Name, DOB, Email ID, Lucky Number, Favorite food etc.

CODE :

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>

<!DOCTYPE html>

<html>

<head>

<title>User Info Entry Form</title>

</head>

<body bgcolor="white">

<form action="Ques3JSP.jsp" method="post">

<input type="hidden" name="submitted" value="true">

<table>

<tr>

<td>Name:</td>

<td>

<input type="text" name="userName">

</td>

</tr>

<tr>

<td>Birth Date:</td>

<td>

<input type="text" name="birthDate">

</td>

<td>(Use format yyyy-mm-dd)</td>

</tr>

<tr>

<td>Email Address:</td>

<td>

<input type="text" name="emailAddr">

</td>
```

```html
<td>(Use format name@company.com)</td>

</tr>

<tr>

<td>Gender:</td>

<td>

<input type="radio" name="gender" value="male"

checked>Male<br>

<input type="radio" name="gender" value="female">Female

</td>

</tr>


<tr>

<td>Lucky number:</td>

<td>

<input type="text" name="luckyNumber">

</td>

<td>(A number between 1 and 100)</td>

</tr>

<tr>

<td>Favorite Foods:</td>

<td>

<input type="checkbox" name="food" value="Pizza">Pizza<br>

<input type="checkbox" name="food" value="Pasta">Pasta<br>

<input type="checkbox" name="food" value="Chinese">Chinese

</td>

</tr>

<tr>

<td colspan=2>

<input type="submit" value="Send Data">

</td>

</tr>

</table>
```

```
</form>

<br><br><hr>

<c:if test="${param.submitted}">

<h3>You entered following info:</h3><br>

<h4 style="color:green">

Name: <c:out value="${param.userName}" /><br>

Birth Date: <c:out value="${param.birthDate}" /><br>

Email Address: <c:out value="${param.emailAddr}" /><br>

Gender: <c:out value="${param.gender}" /><br>

Lucky Number: <c:out value="${param.luckyNumber}" /><br>

Favorite Food:

<c:forEach items="${paramValues.food}" var="myfood">

<c:out value="${myfood}" />&nbsp,

</c:forEach>

</h4>

</c:if>

</body>
```

</html>

Name: Mishika

Birth Date: 2000-08-09 (Use format yyyy-mm-dd)

Email Address: mishikarawat@gmail.com (Use format name@company.com)

Gender: ○ Male
         ◉ Female

Lucky number: 9 (A number between 1 and 100)

Favorite Foods: ☐ Pizza
                ☐ Pasta
                ☑ Chinese

[Send Data]

You entered following info:

Name: Mishika
Birth Date: 2000-08-09
Email Address: mishikarawat@gmail.com
Gender: female
Lucky Number: 9
Favorite Food: Chinese ,

Program 4: Display Good Morning <uname>, Good Afternoon <uname> or Good Evening <uname> based on the current time of the day.

CODE :

//Ques4JSP.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@taglib prefix="k" uri="WEB-INF/tlds/greet.tld"%>


<!DOCTYPE html>

<html>

  <head>

               <title> JSP program 1 </title>

     </head>

     <body bgcolor="#FFBEBC">

     <center>

       <fieldset>
```

```
            <k:today name1="${param.name2}"></k:today>
         </fieldset>
      </center>
        </body>
</html>
```

//Ques4.java

```java
package myTags;

import javax.servlet.jsp.tagext.*;

import javax.servlet.jsp.*;

import java.io.*;

import java.util.*;


public class Ques4 extends SimpleTagSupport
{
   String name1;
        public void setName1(String name1)
        {
    this.name1 = name1;
   }


        int hr, min, sec;


        public void doTag() throws JspException, IOException
   {
                JspWriter out = getJspContext().getOut();
     out.print("Time : ");
     hr = Calendar.getInstance().get(Calendar.HOUR_OF_DAY);
     min = Calendar.getInstance().get(Calendar.MINUTE);
     sec = Calendar.getInstance().get(Calendar.SECOND);
     out.print(hr+"hr-");
     out.print(min+"min-");
     out.print(sec+"sec<br>");
```

```
                if(hr>=5 && hr<= 11 )

    {

      out.println(name1+"Good Morning ");

    }

    else if(hr>=12 && hr<= 4)

    {

      out.println(name1+"Good Afternoon ");

    }

    else

    {

      out.println(name1+" Good Evening ");

    }

  }

}
```

//greet.tld

```xml
<?xml version="1.0" encoding="UTF-8"?>

<taglib

        version="2.1" xmlns="http://java.sun.com/xml/ns/javaee"

        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

        xsi:schemaLocation="http://java.sun.com/xml/ns/javaee

        http://java.sun.com/xml/ns/javaee/web-jsptaglibrary_2_1.xsd">


        <tlib-version>1.0</tlib-version>

  <short-name>greet</short-name>

  <uri>/WEB-INF/tlds/gret</uri>

  <tag>

    <name>today</name>

    <tag-class>myTags.Ques4</tag-class>

    <body-content>scriptless</body-content>

    <attribute>

    <name>name1</name>

    <required>true</required>

    <rtexprvalue>true</rtexprvalue>
```
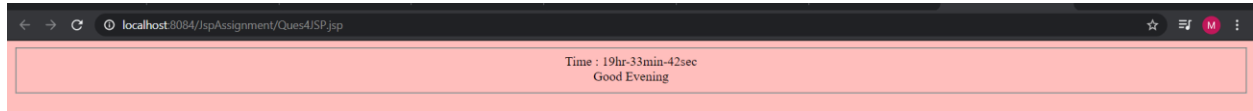
```
      </attribute>
    </tag>
</taglib>
```


Time : 19hr-33min-42sec
Good Evening

Program 5: Let the user enter a word a in a textbox and let her/him select one of even or odd radio buttons. If she/he selects odd, check the odd positions in the word entered, if they all contain vowels, then display the message 'You win', else display 'You lose'. Similarly, if the user selects even, check for vowels in all even positions in the word entered. Use jstl's 'fn' library.

CODE :

//Ques5HTML.html

```
< <html>
  <head>
    <title>JSP Lab Assignment</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body bgcolor="#E6E6FA">
    <center>
    <fieldset>
      <h2><i><u>JSP Lab Assignment Question 5</u></i></h2>
  <form action="Ques5JSP.jsp" method="post">
  Input: <input type="text" name="vowel"><br/>
  Choose from:<br/>
  Odd: <input type="radio" name="evod" value="odd"><br/>
  Even: <input type="radio" name="evod" value="even"><br/>
  <input type="submit" value="submit">
</form>
</fieldset>
    </center>
```
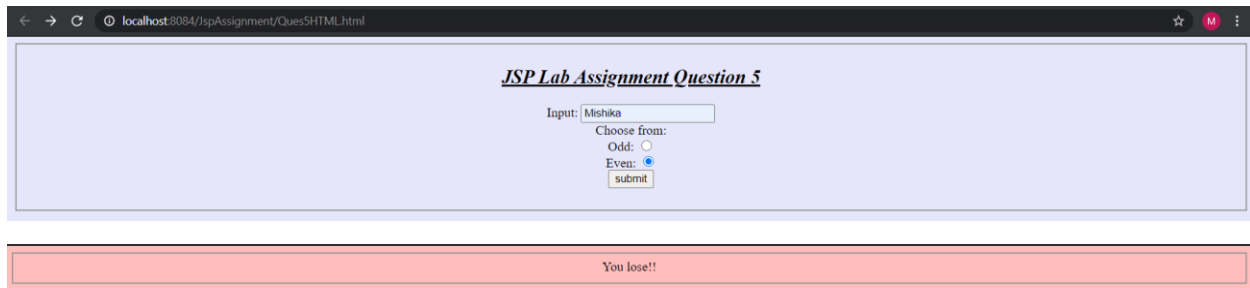
```
        </body>
</html>
```

//Ques5JSP.jsp

```jsp
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<%@taglib prefix="fn" uri="http://java.sun.com/jsp/jstl/functions" %>


<html>
        <head>
                <title> JSP program 5 </title>
        </head>
        <body bgcolor="#FFBEBC">
      <center>
        <fieldset>
        <c:set var="a" value="${param.vowel}"/>
                <c:set var="b" value="${param.evod}"/>
                <c:set var="c" value="${fn:split(a ,'-')}"/>
                <c:choose>
                        <c:when test="${b=='odd'}">
                                <c:forEach begin="1" end="7" var="k" step="2">
                                        <c:if test="${c[k]=='a'|| c[k]=='e'|| c[k]=='i'|| c[k]=='o'||
c[k]=='u'}">
                        You win!!
                                </c:if>
                        </c:forEach>
                </c:when>
                <c:otherwise>
            You lose!!
                </c:otherwise>
        </c:choose>
      </fieldset>
    </center>
```

```
        </body>

</html>
```

Ques 6 :Create your custom library which contains two tags: <hello>, <choco>. Usage of the tags: <hello name="Ajay">: Output should be Hello Ajay. It contains a mandatory attribute 'name' which can accept Dynamic value. <choco texture="Chewy">: Output should be FiveStar, BarOne. <choco texture="Crunchy">: Output should be Munch. KitKat. That means the mandatory attribute must accept a value, and based on the attributes value, it should give output. You must use a bean ChocoBean for this purpose.

CODE :

//HTML CODE

```html
<html>

    <head>

        <title>JSP Lab Assignment</title>

        <meta charset="UTF-8">

        <meta name="viewport" content="width=device-width, initial-scale=1.0">

    </head>

    <body bgcolor="#E6E6FA">

        <center>

        <fieldset>

            <h2><i><u>JSP Lab Assignment Question 6</u></i></h2>

    <form action="Ques6jsp.jsp" method="post">

        Your Name: <input type="text" name="name"/><br><br>

        Chocolate Type: <input type="text" name="choc"/><br><br>

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

</form>
```

```
        </fieldset>

    </center>

  </body>

</html>
```

//JAVA CODE

```jsp
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@taglib prefix="all" uri="/WEB-INF/tlds/custom_Q6" %>


<!DOCTYPE html>

<html>

        <head>

                <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

                <title> JSP program6 </title>

        </head>

        <body bgcolor="#FFBEBC">

        <center>

          <fieldset>

                <b><all:hello name="${param.name}"/></b><br><br>

                <all:choco texture="${param.choc}"/>

          </fieldset>

        </center>

          </body>

</html>
```

//CUSTOM TAG CODE

```xml
<?xml version="1.0" encoding="UTF-8"?>

<taglib version="2.1" xmlns="http://java.sun.com/xml/ns/javaee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-
jsptaglibrary_2_1.xsd">

 <tlib-version>1.0</tlib-version>

 <short-name>custom_q6</short-name>

 <uri>/WEB-INF/tlds/custom_Q6</uri>

  <tag>
```

```xml
      <name>choco</name>

      <tag-class>myTags.ChocoBean</tag-class>

      <body-content>empty</body-content>

      <attribute>

        <name>texture</name>

        <required>true</required>

        <rtexprvalue>true</rtexprvalue>

      </attribute>

      </tag>

      <tag>

      <name>hello</name>

      <tag-class>myTags.Ques6_HelloTag</tag-class>

      <body-content>empty</body-content>

      <attribute>

        <name>name</name>

        <required>true</required>

        <rtexprvalue>true</rtexprvalue>

      </attribute>

    </tag>

</taglib>
```

//HELLO TAG

```java
package myTags;


import java.io.IOException;

import javax.servlet.jsp.JspException;

import javax.servlet.jsp.JspWriter;

import javax.servlet.jsp.tagext.SimpleTagSupport;


public class Ques6_HelloTag extends SimpleTagSupport

{

   String name;

   public void setName(String name)
```

```java
        {
            this.name=name;
        }
        public void doTag() throws JspException, IOException
        {
            JspWriter out = getJspContext().getOut();
            if(name!=null)
            {
                out.println("Hello "+name+"<br/>");
            }
            if(name == null)
                out.println("Attribute not set<br/>");
        }
    }
```

//CHOCO TAG

```java
 package myTags;

import java.beans.*;
import java.io.IOException;
import java.io.Serializable;
import javax.servlet.jsp.JspWriter;
import javax.servlet.jsp.tagext.SimpleTagSupport;



public class ChocoBean extends SimpleTagSupport implements Serializable {
    private String texture;


    public void setTexture(String texture) {
        this.texture = texture;
    }
    public void doTag() throws IOException
    {
```

```
      JspWriter out = getJspContext().getOut();

      if(texture.equalsIgnoreCase("Crunchy"))

         out.println("Munch, Kitkat!");

      if(texture.equalsIgnoreCase("Chewy"))

         out.println("Fivestart, Barone!");

   }

}
```

Ques 7: Create a custom tag "substring" with 3 mandatory attributes "input", "start", "end" which will do substring operation on given input.

//HTML CODE

```
<html>

  <head>

    <title>JSP Lab Assignment</title>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

  </head>

  <body bgcolor="#E6E6FA">

    <center>

    <fieldset>

      <h2><i><u>JSP Lab Assignment Question 6</u></i></h2>

    <form action="Ques7jsp.jsp" method="post">

      Input: <input type="text" name="input"/><br><br>

      Start: <input type="text" name="start"/><br><br>
```

```
        End: <input type="text" name="end"/><br><br>

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

</form>

        </fieldset>

        </center>

    </body>

</html>
```

//JSP CODE

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@taglib prefix="all" uri="/WEB-INF/tlds/substring_Q7"%>

<!DOCTYPE html>

<html>

        <head>

                <title>JSP Question 7</title>

        </head>

        body bgcolor="#FFBEBC">

    <center>

        <fieldset>

                <b><all:substring end="${param.end}" input="${param.input}"
start="${param.start}"/></b><br><br>

            </fieldset>

        </center>

        </body>

</html>
```

//JAVA CODE

```
package myTags;

import javax.servlet.jsp.tagext.*;

import javax.servlet.jsp.*;

import java.io.*;


public class Ques7 extends SimpleTagSupport

{
```

```java
    String input;

    int start,end;

    public void setInput(String input)

    {

        this.input=input;

    }

    public void setStart(int start)

    {

        this.start=start;

    }

    public void setEnd(int end)

    {

        this.end=end;

    }

    public void doTag() throws IOException

    {

        JspWriter out = getJspContext().getOut();

        if(start>=0 && end<input.length())

        {

            for(int i=start;i<=end;i++)

            {

                out.print(input.charAt(i));

            }

        }

        else

            out.println("Invalid start or end");

    }

}
```

//SUBSTRING TAG

```xml
<?xml version="1.0" encoding="UTF-8"?>

<taglib version="2.1" xmlns="http://java.sun.com/xml/ns/javaee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```xml
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-jsptaglibrary_2_1.xsd">

  <tlib-version>1.0</tlib-version>

  <short-name>substring_q7</short-name>

  <uri>/WEB-INF/tlds/substring_Q7</uri>

   <tag>

      <name>substring</name>

      <tag-class>myTags.Ques7</tag-class>

      <body-content>scriptless</body-content>

      <attribute>

        <name>end</name>

        <required>true</required>

        <rtexprvalue>true</rtexprvalue>

      </attribute>

      <attribute>

        <name>input</name>

        <required>true</required>

        <rtexprvalue>true</rtexprvalue>

      </attribute>

      <attribute>

        <name>start</name>

        <required>true</required>

        <rtexprvalue>true</rtexprvalue>

      </attribute>

   </tag>

</taglib>
```

JSP Lab Assignment Question 6

Input: Mishika

Start: 0

End: 4

Submit

Mishi

Ques 8 :Create a custom tag "reverse" with a mandatory attribute "input" to reverse a string.

//HTML CODE

```
<html>

    <head>

    <title>JSP Lab Assignment</title>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

  </head>

  <body bgcolor="#E6E6FA">

    <center>

    <fieldset>

        <h2><i><u>JSP Lab Assignment Question 8</u></i></h2>

    <form action="Ques8jsp.jsp" method="post">

     Input: <input type="text" name="input"/><br><br>

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

     </form>

     </fieldset>

     </center>

   </body>

</html>
```

//JSP CODE

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@taglib prefix="all" uri="/WEB-INF/tlds/Ques8"%>


<!DOCTYPE html>

<html>

<head>

  <title>Lab Assignment Ques 7 </title>

</head>
```

```
<body bgcolor = "#FFBEBC">

    <center>

      <fieldset>

       <b><all:reverse input="${param.input}"/></b><br><br>

     </fieldset>

       </center>

</body>

</html>
```

//JAVA CODE

```java
package myTags;

import javax.servlet.jsp.tagext.*;

import javax.servlet.jsp.*;

import java.io.*;

import java.util.*;


public class Ques8 extends SimpleTagSupport
{
   String input;
   public void setInput(String input)
   {
      this.input=input;
   }
   public void doTag() throws IOException
   {
      JspWriter out = getJspContext().getOut();
      for(int i=input.length()-1;i>=0;i--)
      {
         out.print(input.charAt(i));
      }
   }
}}
```

//REVERSE TAG

```
<?xml version="1.0" encoding="UTF-8"?>

<taglib version="2.1" xmlns="http://java.sun.com/xml/ns/javaee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-
jsptaglibrary_2_1.xsd">

  <tlib-version>1.0</tlib-version>

  <short-name>ques8</short-name>

  <uri>/WEB-INF/tlds/Ques8</uri>

   <tag>

      <name>reverse</name>

      <tag-class>myTags.Ques8</tag-class>

      <body-content>empty</body-content>

      <attribute>

         <name>input</name>

         <required>true</required>

         <rtexprvalue>true</rtexprvalue>

      </attribute>

   </tag>

</taglib>
```


JSP Lab Assignment Question 8

Input: Mishika

submit

akihsiM

Program 9: Create a custom tag "today" that displays today's date and time.

CODE :

//Ques9JSP.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@taglib prefix="x" uri="WEB-INF/tlds/today.tld" %>
```

```html
<!DOCTYPE html>
<html>

<head>
        <title> JSP program 9 </title>
    </head>
    <body bgcolor="#FFBEBC">
    <center>
      <fieldset>
        <x:xyz></x:xyz>
      </fieldset>
    </center>
      </body>
</html>
```

//Ques9.java

```java
package myTags;

import javax.servlet.jsp.tagext.*;

import javax.servlet.jsp.*;

import java.io.*;

import java.util.*;

public class Ques9 extends SimpleTagSupport
{
    public void doTag() throws JspException, IOException
    {
        JspWriter out = getJspContext().getOut();
        try
        {
            out.print("Date : ");
            out.print(Calendar.getInstance().get(Calendar.DAY_OF_MONTH)+"/");
            out.print(Calendar.getInstance().get(Calendar.MONTH)+"/");
```

```java
            out.print(Calendar.getInstance().get(Calendar.YEAR)+"<br/>");

            out.print("Time : ");

            out.print(Calendar.getInstance().get(Calendar.HOUR_OF_DAY)+"hr-");

            out.print(Calendar.getInstance().get(Calendar.MINUTE)+"min-");

            out.print(Calendar.getInstance().get(Calendar.SECOND)+"sec");

        }

        catch(Exception e)

        {

            System.out.println(e);

        }

    }

}
```

//today.tld

```xml
<?xml version="1.0" encoding="UTF-8"?>

<taglib

        version="2.1"

        xmlns="http://java.sun.com/xml/ns/javaee"

        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

        xsi:schemaLocation="http://java.sun.com/xml/ns/javaee

        http://java.sun.com/xml/ns/javaee/web-jsptaglibrary_2_1.xsd">


        <tlib-version>1.0</tlib-version>

    <short-name>today</short-name>

    <uri>/WEB-INF/tlds/today</uri>

    <tag>

        <name>xyz</name>

        <tag-class>myTags.Ques9</tag-class>

        <body-content>empty</body-content>

    </tag>

</taglib>
```


localhost:8084/JspAssignment/Ques9JSP.jsp

Date : 1/10/2020
Time : 20hr-31min-24sec

CODE :

//Ques10HTML.html

```html
<html>

  <head>

    <title>JSP Lab Assignment</title>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

  </head>

  <body bgcolor="#E6E6FA">

    <center>

    <fieldset>

      <h2><i><u>JSP Lab Assignment Question 1</u></i></h2>

    <form action="order.jsp" method="get">

      Enter Name:<input type="text" name="name"/><br>

      Enter Age:<input type="text" name="age"/><br>

      <input type="submit"/>

    </form>

    </fieldset>

    </center>

  </body>
</html>
```

//order.jsp

```jsp
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>


<!DOCTYPE html>

<html>
```

```html
        <head>

                <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

                <title>Order Page</title>

        </head>

        <body>

                <c:set var="name" value="${param.name}" scope="session"/>

                <c:out value="Hello ${name}"/>

                <form action="ordered.jsp" method="get">

                        What do you want to order : <input type="text" name="prod"/><br/>

                        <input type="submit"/>

                </form>

        </body>

</html>
```
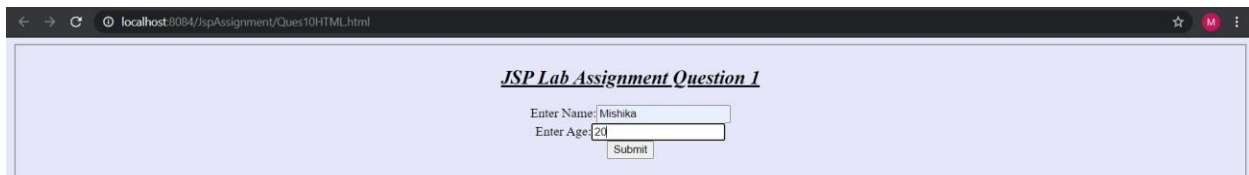
//ordered.jsp

```html
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<%@taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>


<!DOCTYPE html>

<html>

        <head>

                <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

                <title>Ordered Page</title>

        </head>

        <body>

                <c:set var="item" value="${param.prod}"/>

                <c:out value="Hello ${name} you have ordered ${item}"/>

        </body>

</html>
```

Hello Mishika
What do you want to order : Chopsticks

Submit

Hello Mishika you have ordered Chopsticks