**Slip 1**

**A) Write a java program to scroll the text from left to right and vice versa continuously.**

**Answer :**

import java.applet.Applet;

import java.awt.\*;

public class Slip1A extends Applet implements Runnable {

    int x, y, z;

    Thread t;

    public void init() {

        x = 50;

        y = 50;

        z = 1;

        t = new Thread(this);

        t.start();

    }

    public void mpostion() {

        x = x + 10 \* z;

        if (x > this.getWidth())

            z = -1;

        if (x < 0)

            z = 1;

    }

    public void run() {

        while (true) {

            repaint();

            mpostion();

            try {

                Thread.sleep(100);

            } catch (Exception e) {

            }

        }

    }

    public void paint(Graphics g) {

        g.drawString("SVPM", x, y);

    }

}

/\*

 \* <applet code="Slip1A.class" width="300" height="300">

 \* </applet>

 \*/

**B) Write a socket program in java for chatting application.(Use Swing)**

Answer :

//Server

import java.awt.\*;

import java.awt.event.\*;

import java.net.\*;

import java.io.\*;

public class Slip1B extends Frame implements ActionListener, Runnable {

    Button b1;

    TextField t1;

    TextArea ta;

    Thread t;

    BufferedReader br;

    PrintWriter pw;

    public Slip1B() {

        Frame f = new Frame("Server");

        f.setLayout(new FlowLayout());

        b1 = new Button("Send");

        b1.addActionListener(this);

        t1 = new TextField(15);

        ta = new TextArea(12, 20);

        f.add(t1);

        f.add(ta);

        f.add(b1);

        try {

            ServerSocket ss = new ServerSocket(2000);

            Socket s = ss.accept();

            System.out.println(s);

            br = new BufferedReader(new InputStreamReader(s.getInputStream()));

            pw = new PrintWriter(s.getOutputStream(), true);

        } catch (Exception e) {

        }

        t = new Thread(this);

        t.start();

        f.setSize(400, 400);

        f.setVisible(true);

    }

    public void actionPerformed(ActionEvent ae) {

        pw.println(t1.getText());

        t1.setText("");

    }

    public void run() {

        while (true) {

            try {

                String str = br.readLine();

                ta.append(str + "\n");

            } catch (Exception e) {

            }

        }

    }

    public static void main(String[] args) {

        Slip1B c = new Slip1B();

    }

}

//Client

import java.awt.\*;

import java.awt.event.\*;

import java.net.\*;

import java.io.\*;

public class Slip1B1 extends Frame implements ActionListener, Runnable {

    Button b1;

    TextField t1;

    TextArea ta;

    Thread t;

    Socket s;

    BufferedReader br;

    PrintWriter pw;

    public Slip1B1() {

        Frame f = new Frame("Client");

        f.setLayout(new FlowLayout());

        b1 = new Button("Send");

        b1.addActionListener(this);

        t1 = new TextField(15);

        ta = new TextArea(12, 20);

        f.add(t1);

        f.add(ta);

        f.add(b1);

        try {

           s = new Socket("localhost",2000);

            br = new BufferedReader(new InputStreamReader(s.getInputStream()));

            pw = new PrintWriter(s.getOutputStream(), true);

        } catch (Exception e) {

        }

        t = new Thread(this);

        t.start();

        f.setSize(400, 400);

        f.setVisible(true);

    }

    public void actionPerformed(ActionEvent ae) {

        pw.println(t1.getText());

        t1.setText("");

    }

    public void run() {

        while (true) {

            try {

                String str = br.readLine();

                ta.append(str + "\n");

            } catch (Exception e) {

            }

        }

    }

    public static void main(String[] args) {

        Slip1B1 c = new Slip1B1();

    }

}

**Dot Net Framework**

A) Write a VB.Net Program to display the numbers continuously in TextBox by

clicking on Button.

Answer :

Public Class Form1

    Private Sub Timer1\_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick

        TextBox1.Text = Second(DateTime.Now)

    End Sub

    Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

        Timer1.Enabled = True

        Timer1.Interval = 1000

        Timer1.Start()

    End Sub

End Class

Output :

B) Write a VB.Net program to accept the details of Employee (ENO, EName Salary)

and store it into the database and display it on gridview control.

Answer :

Imports System

Imports System.Data

Imports System.Data.OleDb

Public Class Form1

    Dim con As New OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data Source=C:\Users\Desktop\New folder\Emp.accdb")

    Dim adpt As New OleDbDataAdapter("Select \* from Emp", con)

    Dim ds As New DataSet

    Dim cmd As New OleDbCommand

    Public Function display()

        adpt.Fill(ds, "Emp")

        DataGridView1.DataSource = ds

        DataGridView1.DataMember = "Emp"

        Return ds

    End Function

    Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

        display()

    End Sub

    Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

        cmd.Connection = con

        cmd.CommandType = CommandType.Text

        cmd.CommandText = "insert into Emp values(" & TextBox1.Text & ",'" & TextBox2.Text & "'," & TextBox3.Text & ")"

        con.Open()

        cmd.ExecuteNonQuery()

        con.Close()

        ds.Clear()

        display()

    End Sub

End Class

Slip 2

Q.1. Advanced Java:

**A) Write a JSP program to check whether given number is Perfect or not. (Use Include**

**directive).**

Answer :

 Slip2A.html

<html>

<body>

    <h1>Find Perfect Number</h1>

    <form action="http://127.0.0.1:8080/java/Slip2A.jsp" method="GET">

        Enter Number : <input type='text' name='no'>

        <input type='submit' value='SUBMIT'>

    </form>

</body>

</html>

Slip2A.jsp

<%@ page language="java" %>

<html>

    <body>

        <%

            int n = Integer.parseInt(request.getParameter("no"));

            int n1=0;

            for(int i=1; i<n; i++){

                if(n%i==0){

                    n1+=i;

                }

            }

            if(n1==n){

                out.println("Perfect Number");

            }else{

                out.println("not Perfect Number");

            }

        %>

    </body>

</html>

**B) Write a java program in multithreading using applet for drawing flag.**

Answer :

import java.awt.\*;

public class Slip2B extends Frame{

    int f = 0;

    public Slip2B(){

        Signal s = new Signal();

        s.start();

        setSize(500,500);

        setVisible(true);

    }

    public void paint (Graphics g){

        switch (f){

            case 0 :

            g.drawLine(150, 50, 150, 300);

            case 1 :

            g.drawRect(150, 50, 100, 90);

        }

    }

class Signal extends Thread{

    public void run(){

        while(true){

            f = (f+1)%2;

            repaint();

            try{

                Thread.sleep(1000);

            }catch(Exception e){

            }

        }

    }

}

    public static void main(String args[]){

        new Slip2B();

    }

}

**Dot Net Framework**

A) Write a Vb.Net program to move the Text “Pune University” continuously from Left

 to Right and Vice Versa.

Answer :

Public Class Form1

    Private Sub Timer1\_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick

        If Label1.Left >= Me.Width Then

            Label1.Left = -100

        Else

            Label1.Left = Label1.Left + 10

        End If

    End Sub

End Class

Output :

B)Write a C#.Net program to create a base class Department and derived classes Sales and

Human Resource. Accept the details of both departments and display them in proper

format.

Answer :

Output :

Slip 3

Q.1. Advanced Java:

**A) Write a socket program in Java to check whether given number is prime or not.**

**Display result on client terminal.**

Answer :

//Client

import java.io.\*;

import java.net.\*;

public class Slip3A {

    public static void main(String args[]) throws Exception {

        Socket s = new Socket("localhost", 7500);

        DataInputStream din = new DataInputStream(System.in);

        System.out.print("Enter any number:");

        String n = din.readLine();

        System.out.println("====================");

        DataOutputStream dos = new DataOutputStream(s.getOutputStream());

        dos.writeBytes(n + "\n");

        DataInputStream dis = new DataInputStream(s.getInputStream());

        System.out.println(dis.readLine());

    }

}

//Server

import java.io.\*;

import java.net.\*;

public class Slip3A1 {

    public static void main(String args[]) throws Exception {

        ServerSocket ss = new ServerSocket(7500);

        Socket s = ss.accept();

        DataInputStream dis = new DataInputStream(s.getInputStream());

        int n = Integer.parseInt(dis.readLine());

        int i, cnt = 0;

        for (i = 2; i < n; i++) {

            if (n % i == 0)

                cnt++;

            break;

        }

        DataOutputStream dos = new DataOutputStream(s.getOutputStream());

        if (cnt == 0)

            dos.writeBytes(n + " is prime number.");

        else

            dos.writeBytes(n + " is not prime number.");

        s.close();

    }

}

**B) Write a java program using applet for bouncing ball, for each bounce color of ball**

**should change randomly.**

Answer :

import java.awt.\*;

import java.awt.event.\*;

public class Slip3B extends Frame implements Runnable {

    private int x, y, w, h, f;

    private Color c = Color.red;

    public Slip3B() {

        setTitle("Bouncing Boll");

        setSize(400, 400);

        setVisible(true);

        w = getWidth();

        h = getHeight();

        x = (int) (Math.random() \* getWidth());

        y = (int) (Math.random() \* getHeight());

        Thread t = new Thread(this);

        t.start();

    }

    public void run() {

        while (true) {

            switch (f) {

                case 0:

                    y++;

                    if (y > h - 50) {

                        c = new Color((int) (Math.random() \* 256), (int) (Math.random() \* 256),

                                (int) (Math.random() \* 256));

                        f = 1;

                    }

                    break;

                case 1:

                    y--;

                    if (y < 0) {

                        c = new Color((int) (Math.random() \* 256), (int) (Math.random() \* 256),

                                (int) (Math.random() \* 256));

                        f = 0;

                    }

            }

            repaint();

            try {

                Thread.sleep(10);

            } catch (Exception e) {

            }

        }

    }

    public void paint(Graphics g) {

        super.paint(g);

        g.setColor(c);

        g.fillOval(x, y, 20, 20);

    }

    public static void main(String args[]) {

        new Slip3B();

    }

}

**Dot Net Framework**

A) Write a program in C# .Net to create a function for the sum of two numbers.

Answer :

namespace WinFormsApp18

{

    public partial class Form1 : Form

    {

        public Form1()

        {

            InitializeComponent();

        }

        public static int Sum(int a, int b)

        {

            return a + b;

        }

        private void button1\_Click(object sender, EventArgs e){

            int a = Convert .ToInt32 (textBox1.Text);

            int b = Convert .ToInt32 (textBox2.Text);

            int c =  Sum (a, b);

            label5.Text = c.ToString();

        }

    }

}

Output :

B) Write a VB.NET program to create teacher table (Tid, TName, subject) Insert the

 records (Max: 5). Search record of a teacher whose name is “Seeta” and display result.

Answer :

Imports System

Imports System.Data

Imports System.Data.OleDb

Public Class Form1

    Dim con As New OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data Source=C:\Users\Saurabh\Desktop\New folder\teacher.accdb")

    Dim adpt As New OleDbDataAdapter("Select \* from teacher", con)

    Dim cmd As New OleDbCommand

    Dim ds As New DataSet

    Public Function display()

        adpt.Fill(ds, "teacher")

        DataGridView1.DataSource = ds

        DataGridView1.DataMember = "teacher"

        Return ds

    End Function

    Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

        display()

    End Sub

    Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

        cmd.Connection = con

        cmd.CommandType = CommandType.Text

        cmd.CommandText = "insert into teacher values(" & TextBox1.Text & ",'" & TextBox2.Text & "','" & TextBox3.Text & "')"

        con.Open()

  If cmd.ExecuteNonQuery() Then

            MessageBox.Show("Inserted Successfully...!")

        End If

        con.Close()

        ds.Clear()

        display()

    End Sub

    Private Sub TextBox4\_KeyDown(sender As Object, e As KeyEventArgs) Handles TextBox4.KeyDown

        ds.Clear()

        Dim adp As New OleDbDataAdapter("select \* from teacher Where Name like '%" & TextBox4.Text & "%'", con)

        adp.Fill(ds, "search")

        DataGridView1.DataSource = ds

        DataGridView1.DataMember = "search"

    End Sub

End Class

Output :

Slip 4

Q.1. Advanced Java:

A) Write a Java Program to delete details of students whose initial character of their

name is ‘S’.

Answer :

import java.sql.\*;

class Slip4A {

    public static void main(String args[]) throws Exception {

        Connection con;

        Statement stmt;

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

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

        stmt = con.createStatement();

        int n = stmt.executeUpdate("delete from student where sname like 'S%'");

        System.out.println(n + " rows deleted..");

        con.close();

    }

}

B) Write a SERVLET program that provides information about a HTTP request from a

client, such as IP address and browser type. The servlet also provides information about

the server on which the servlet is running, such as the operating system type, and the

names of currently loaded servlets.

Answer :

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

public class Slip4B extends HttpServlet implements Servlet {

    public void doGet(HttpServletRequest req, HttpServletResponse res) throws IOException, ServletException {

        res.setContentType("html/text");

        PrintWriter pw = res.getWriter();

        pw.println("<html><body><h1><b>INFORMATION OF SERVER</b></h1>");

        pw.println("<br>Server Name:" + req.getServerName());

        pw.println("<br>Server Port:" + req.getServerPort());

        pw.println("<br> Ip Address:" + req.getRemoteAddr());

        pw.println("<br> CLient Browser:" + req.getHeader("User-Agent"));

        pw.println("</body></html>");

        pw.close();

    }

}

**Dot Net Framework**

A) Design a VB.net form to pick a date from DateTimePicker Control and display day,

month and year in separate text boxes.

Answer :

Public Class Form1

    Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

        Label1.Text = "Year : " & DateTimePicker1.Value.Year

        Label2.Text = "Month : " & DateTimePicker1.Value.Month

        Label3.Text = "Day : " & DateTimePicker1.Value.Day

    End Sub

End Class

Output :

B) Create a web application to insert 3 records inside the SQL database table having

following fields ( DeptId, DeptName, EmpName, Salary). Update the salary for any one

employee and increment it to 15% of the present salary. Perform delete operation on

one row of the database table.

Answer :

Output :

Slip 5

Q.1. Advanced Java:

A) Write a JSP program to calculate sum of first and last digit of a given number.

Display sum in Red Color with font size 18.

Answer :

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

<!DOCTYPE html>

<html>

<head>

    <title>Sum of First and Last Digits</title>

</head>

<body>

    <h2>Enter a Number:</h2>

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

        <input type="number" name="num" required>

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

    </form>

    <%

        if(request.**getParameter**("num")!=null) {

            int num = Integer.**parseInt**(request.**getParameter**("num"));

            int lastDigit = num % 10;

            int firstDigit = num;

            while(firstDigit>=10) {

                firstDigit = firstDigit / 10;

            }

            int sum = firstDigit + lastDigit;

    %>

            <h2 style="color:red; font-size:18px;">Sum of First and Last Digits: <%=sum%></h2>

    <%

        }

    %>

</body>

</html>

Output :

B) Write a java program in multithreading using applet for Traffic signal.

Answer :

import java.awt.\*;

public class Slip5B extends Frame {

    int f = 0;

    public Slip5B() {

        Signal s = new Signal();

        s.start();

        setSize(500, 500);

        setVisible(true);

    }

    public void paint(Graphics g) {

        switch (f) {

            case 0:

                g.setColor(Color.red);

                g.fillOval(60, 60, 50, 50);

                g.setColor(Color.black);

                g.fillOval(60, 120, 50, 50);

                g.fillOval(60, 180, 50, 50);

                break;

            case 1:

                g.setColor(Color.yellow);

                g.fillOval(60, 120, 50, 50);

                g.setColor(Color.black);

                g.fillOval(60, 60, 50, 50);

                g.fillOval(60, 180, 50, 50);

                break;

            case 2:

                g.setColor(Color.green);

                g.fillOval(60, 180, 50, 50);

                g.setColor(Color.black);

                g.fillOval(60, 120, 50, 50);

                g.fillOval(60, 60, 50, 50);

                break;

        }

    }

    class Signal extends Thread {

        public void run() {

            while (true) {

                f = (f + 1) % 3;

                repaint();

                try {

                    Thread.sleep(1000);

                } catch (Exception e) {

                }

            }

        }

    }

    public static void main(String args[]) {

        new Slip5B();

    }

}

**Dot Net Framework**

 A) Write a VB.NET program to accept a character from keyboard and check whether it

 is vowel or consonant. Also display the case of that character.

Answer :

Public Class Form1

    Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

        Dim a As Char

        Dim str As String

        a = TextBox1.Text

        If (TextBox1.Text.Length <= 1) Then

            If Char.IsUpper(a) Then

                str = "Upper Case"

            Else

                str = "Lower Case"

            End If

            If (a = "a" Or a = "e" Or a = "i" Or a = "o" Or a = "u" Or

                a = "A" Or a = "E" Or a = "I" Or a = "O" Or a = "U") Then

                MessageBox.Show(TextBox1.Text & " is " & str & " Vowel")

            Else

                MessageBox.Show(TextBox1.Text & " is " & str & " Consonant")

            End If

        End If

    End Sub

    Private Sub TextBox1\_Leave(sender As Object, e As EventArgs) Handles TextBox1.Leave

        Dim a As String

        a = TextBox1.Text

        If (TextBox1.Text.Length > 1) Then

            Label2.Text = "Only One Characters Allowed...!"

        Else

            Label2.Text = ""

        End If

    End Sub

End Class

Output :

B) Design a web application form in ASP.Net having loan amount, interest rate and

duration fields. Calculate the simple interest and perform necessary validation i.e.

Ensures data has been entered for each field. Checking for non-numeric value. Assume

suitable web-form controls and perform necessary validation.

Answer :

Output :

Slip 6

Q.1. Advanced Java:

A) Write a java program to blink image on the Frame continuously.

Answer :

import java.awt.\*;

public class Slip6A extends Frame {

    int f = 0;

    public Slip6A() {

        Blink s = new Blink();

        s.start();

        setSize(500, 500);

        setVisible(true);

    }

    class Blink extends Thread {

        public void run() {

            while (true) {

                f = (f + 1) % 2;

                repaint();

                try {

                    Thread.sleep(500);

                } catch (Exception e) {

                }

            }

        }

    }

    public void paint(Graphics g) {

        Toolkit t = Toolkit.getDefaultToolkit();

        Image img = t.getImage("./car.png");

        switch (f) {

            case 0:

                g.drawImage(img, 150, 100, this);

        }

    }

    public static void main(String args[]) {

        new Slip6A();

    }

}

B) Write a SERVLET program which counts how many times a user has visited a web

 page. If user is visiting the page for the first time, display a welcome message. If the

 user is revisiting the page, display the number of times visited. (Use Cookie)

Answer :

import **java**.**io**.\*;

import **javax**.**servlet**.\*;

import **javax**.**servlet**.**http**.\*;

public class **VisitCounterServlet** extends **HttpServlet** {

    public void **doGet**(**HttpServletRequest** request, **HttpServletResponse** response)

            throws **ServletException**, **IOException** {

        int visits = 0;

**Cookie**[] cookies = request.**getCookies**();

        if (cookies != null) {

            for (**Cookie** cookie : cookies) {

                if (cookie.**getName**().**equals**("visitCount")) {

                    visits = **Integer**.**parseInt**(cookie.**getValue**());

                }

            }

        }

        visits++;

**Cookie** visitCookie = new **Cookie**("visitCount", **Integer**.**toString**(visits));

        response.**addCookie**(visitCookie);

        response.**setContentType**("text/html");

**PrintWriter** out = response.**getWriter**();

        if (visits == 1) {

            out.**println**("<html><head><title>Welcome</title></head><body>");

            out.**println**("<h2>Welcome to my website!</h2>");

            out.**println**("</body></html>");

        } else {

            out.**println**("<html><head><title>Visit Count</title></head><body>");

            out.**println**("<h2>You have visited this website " + visits + " times.</h2>");

            out.**println**("</body></html>");

        }

        out.**close**();

    }

}

**Dot Net Framework**

A) Write ASP.Net program that displays the names of some flowers in two columns.

Bind a label to the RadioButtonList so that when the user selects an option from the list

and clicks on a button, the label displays the flower selected by the user.

Answer :

Output :

B) Write a VB.NET program to create movie table (Mv\_Name, Release\_year,

Director). Insert the records (Max: 5). Delete the records of movies whose release year

is 2022 and display appropriate message in message box.

Answer :

Imports System

Imports System.Data

Imports System.Data.OleDb

Public Class Form1

    Dim con As New OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data Source=C:\Users\Saurabh\Desktop\New folder\movie.accdb")

    Dim adpt As New OleDbDataAdapter("Select \* from movie", con)

    Dim cmd As New OleDbCommand

    Dim ds As New DataSet

    Public Function display()

        adpt.Fill(ds, "movie")

        DataGridView1.DataSource = ds

        DataGridView1.DataMember = "movie"

        Return ds

    End Function

    Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

        display()

    End Sub

    Private Sub Button1\_Click(sender As Object, e As EventArgs) Handles Button1.Click

        cmd.Connection = con

        cmd.CommandType = CommandType.Text

        cmd.CommandText = "insert into movie values('" & TextBox1.Text & "'," & TextBox2.Text & ",'" & TextBox3.Text & "')"

        con.Open()

 If cmd.ExecuteNonQuery() Then

            MessageBox.Show("Inserted Successfully...!")

        End If

        con.Close()

        ds.Clear()

        display()

    End Sub

    Private Sub Button2\_Click(sender As Object, e As EventArgs) Handles Button2.Click

        cmd.Connection = con

        cmd.CommandType = CommandType.Text

        cmd.CommandText = "DELETE FROM movie WHERE Release\_year = " & TextBox2.Text

        con.Open()

  If cmd.ExecuteNonQuery() Then

             MessageBox.Show("Deleted Successfully...!")

         End If

        con.Close()

        ds.Clear()

        display()

    End Sub

End Class

Slip 7

Q.1. Advanced Java:

A) Write a JSP script to validate given E-Mail ID.

Answer :

<%@ page language="java" %>

<%

  String email = request.**getParameter**("email"); *// retrieve email from form data*

  String regex = "^[\\w-\\.]+@([\\w-]+\\.)+[\\w-]{2,4}$"; *// regular expression for email validation*

  if (email.**matches**(regex)) {

    out.**println**("Valid email address"); *// if email matches the regex, print "Valid email address"*

  } else {

    out.**println**("Invalid email address"); *// if email does not match the regex, print "Invalid email address"*

  }

%>

B) Write a Multithreading program in java to display the number’s between 1 to 100

 continuously in a TextField by clicking on button. (use Runnable Interface).

Answer :

import java.awt.event.\*;

import javax.swing.\*;

class alpha extends Thread {

    public void run() {

        System.out.println("\*\*\*\*\*\*\*\*\* java program using multithreading \*\*\*\*\*\*\*\*\*");

    }

}

public class Slip7B {

    public static void main(String[] args) {

        alpha a1 = new alpha();

        System.out.print(a1);

        JFrame f = new JFrame("Slip7B");

        final JTextField tf = new JTextField();

        tf.setBounds(50, 50, 150, 20);

        JButton b = new JButton("Display");

        b.setBounds(50, 100, 95, 30);

        b.addActionListener(new ActionListener() {

            public void actionPerformed(ActionEvent e) {

                for(int i=0; i<=100; i++){

                    tf.setText("Enter String"+ i);

                }

                a1.start();

            }

        });

        f.add(b);

        f.add(tf);

        f.setSize(400, 400);

        f.setLayout(null);

        f.setVisible(true);

    }

}

**Dot Net Framework**

A) Write a ASP.Net program to accept a number from the user in a textbox control and

throw an exception if the number is not a perfect number. Assume suitable controls on

the web form.

Answer :

Output :

B) Write a VB.NET program to create a table student (Roll No, SName, Class,City).

Insert the records (Max: 5). Update city of students to ‘Pune’ whose city is ‘Mumbai’

and display updated records in GridView.

Answer :

Output :

Slip 8

Q.1. Advanced Java:

A) Write a Java Program to display all the employee names whose initial character of a

 name is ‘A’.

Answer :

import java.io.\*;

import java.sql.\*;

class Slip8A {

    public static void main(String args[]) throws Exception {

        Statement stmt;

        ResultSet rs;

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

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

        stmt = con.createStatement();

        rs = stmt.executeQuery("select ename from emp where ename like 'A%'");

        System.out.println("<<<<Employee Name>>>>>");

        System.out.println("==================");

        while (rs.next()) {

            System.out.println(rs.getString(1));

        }

        con.close();

    }

}

B) Write a java program in multithreading using applet for Digital watch.

Answer :

import java.applet.\*;

import java.awt.\*;

import java.util.\*;

import java.text.\*;

public class Slip8B extends Applet implements Runnable {

    Thread t;

    String str;

    public void start() {

        t = new Thread(this);

        t.start();

    }

    public void run() {

        try {

            while (true) {

                Date date = new Date();

                SimpleDateFormat Nowtime = new SimpleDateFormat("hh:mm:ss");

                str = Nowtime.format(date);

                repaint();

                t.sleep(1000);

            }

        } catch (Exception e) {

        }

    }

    public void paint(Graphics g) {

        g.drawString(str, 120, 100);

    }

}

/\*

 \* <applet code="Slip8B.class" width="300" height="300">

 \* </applet>

 \*/

**Dot Net Framework**

A) List of employees is available in listbox. Write ASP.Net application to add

selected or all records from listbox to Textbox (assume multi-line property of textbox is

 true).

Answer :

Output :

B) Write a c#.Net program for multiplication of matrices.

Answer :

Output :

Slip 9

Q.1. Advanced Java:

A) Write a Java Program to create a Emp (ENo, EName, Sal) table and insert record

into it. (Use PreparedStatement Interface)

Answer :

import java.sql.\*;

import java.io.\*;

class Slip9A {

    public static void main(String args[]) throws Exception {

        Connection con;

        PreparedStatement pstmt;

        int e1, s;

        String enm;

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

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

        pstmt = con.prepareStatement("create table employee1(eid int(8),ename varchar(20),sal int(8))");

        pstmt.executeUpdate();

        System.out.println("Table Created Successfully!!!!!!");

        System.out.println("=====================================");

        DataInputStream din = new DataInputStream(System.in);

        System.out.println("Enter Employee Id, Name and Salary");

        e1 = Integer.parseInt(din.readLine());

        enm = din.readLine();

        s = Integer.parseInt(din.readLine());

        pstmt = con.prepareStatement("insert into employee1 values(?,?,?)");

        pstmt.setInt(1, e1);

        pstmt.setString(2, enm);

        pstmt.setInt(3, s);

        pstmt.executeUpdate();

        System.out.println("Record Inserted Successfully!!!!!!");

        con.close();

    }

}

B) Write a JSP program to create an online shopping mall. User must be allowed to do

purchase from two pages. Each page should have a page total. The third page should

display a bill, which consists of a page total of whatever the purchase has been done

and print the total. (Use Session)

Answer :

<%@ page import="java.util.\*" %>

<%

*// Create a session object if one doesn't exist*

  HttpSession session = request.**getSession**(true);

*// Get the cart object from the session*

  Map<String, Integer> cart = (Map<String, Integer>)session.**getAttribute**("cart");

  if (cart == null) {

    cart = new HashMap<String, Integer>();

    session.**setAttribute**("cart", cart);

  }

*// Add items to the cart*

  if (request.**getParameter**("item") != null) {

    String item = request.**getParameter**("item");

    int quantity = Integer.**parseInt**(request.**getParameter**("quantity"));

    if (cart.**containsKey**(item)) {

      quantity += cart.**get**(item);

    }

    cart.**put**(item, quantity);

  }

*// Calculate the page total*

  int pageTotal = 0;

  for (Map.Entry<String, Integer> entry : cart.**entrySet**()) {

    String item = entry.**getKey**();

    int quantity = entry.**getValue**();

    int price = **getPrice**(item);

    pageTotal += price \* quantity;

  }

*// Display the shopping cart*

  out.**println**("<h1>Shopping Cart</h1>");

  out.**println**("<table>");

  out.**println**("<tr><th>Item</th><th>Quantity</th><th>Price</th></tr>");

  for (Map.Entry<String, Integer> entry : cart.**entrySet**()) {

    String item = entry.**getKey**();

    int quantity = entry.**getValue**();

    int price = **getPrice**(item);

    int total = price \* quantity;

    out.**println**("<tr><td>" + item + "</td><td>" + quantity + "</td><td>" + total + "</td></tr>");

  }

  out.**println**("</table>");

*// Display the page total*

  out.**println**("<h2>Page Total: " + pageTotal + "</h2>");

*// Display the checkout button*

  out.**println**("<form action=\"checkout.jsp\"><input type=\"submit\" value=\"Checkout\"></form>");

%>

**Dot Net Framework**

A) Write a Menu driven program in C#.Net to perform following functionality:

Addition, Multiplication, Subtraction, Division.

Answer :

namespace WinFormsApp18

{

    public partial class Form1 : Form

    {

        public Form1()

        {

            InitializeComponent();

        }

        private void addtionToolStripMenuItem\_Click(object sender, EventArgs e)

        {

            int a = Convert.ToInt32(textBox1.Text);

            int b = Convert.ToInt32(textBox2.Text);

            int c = a+b;

            label3.Text = "+";

            label5.Text = c.ToString();

        }

        private void substractionToolStripMenuItem\_Click(object sender, EventArgs e)

        {

            int a = Convert.ToInt32(textBox1.Text);

            int b = Convert.ToInt32(textBox2.Text);

            int c = a - b;

            label3.Text = "-";

            label5.Text = c.ToString();

        }

        private void divisonToolStripMenuItem\_Click(object sender, EventArgs e)

        {

            int a = Convert.ToInt32(textBox1.Text);

            int b = Convert.ToInt32(textBox2.Text);

            int c = a / b;

            label3.Text = "/";

            label5.Text = c.ToString();

        }

        private void multiplicationToolStripMenuItem\_Click(object sender, EventArgs e)

        {

            int a = Convert.ToInt32(textBox1.Text);

            int b = Convert.ToInt32(textBox2.Text);

            int c = a \* b;

            label3.Text = "\*";

            label5.Text = c.ToString();

        }

    }

}

Output :

B) Create an application in ASP.Net that allows the user to enter a number in the

textbox named "getnum". Check whether the number in the textbox "getnum" is

palindrome or not. Print the message accordingly in the label control named lbldisplay

when the user clicks on the button "check".

Answer :

Output :

Slip 10

Q.1. Advanced Java:

A) Write a java Program in Hibernate to display “Hello world” message.

Answer :

import **org**.**hibernate**.**Session**;

import **org**.**hibernate**.**SessionFactory**;

import **org**.**hibernate**.**cfg**.**Configuration**;

public class **HelloWorld** {

    public static void **main**(**String**[] args) {

**SessionFactory** sessionFactory = new **Configuration**().**configure**().**buildSessionFactory**();

**Session** session = sessionFactory.**openSession**();

**System**.out.**println**("Hello world");

        session.**close**();

        sessionFactory.**close**();

    }

}

Output :

B) Write a SERVLET program to display the details of Product (ProdCode, PName,

Price) on the browser in tabular format. (Use database)

Answer :

import **java**.**io**.\*;

import **java**.**sql**.\*;

import **javax**.**servlet**.\*;

import **javax**.**servlet**.**http**.\*;

public class **ProductDetailsServlet** extends **HttpServlet** {

    public void **doGet**(**HttpServletRequest** request, **HttpServletResponse** response)

            throws **ServletException**, **IOException** {

        response.**setContentType**("text/html");

**PrintWriter** out = response.**getWriter**();

        try {

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

**Connection** con = **DriverManager**.**getConnection**("jdbc:mysql://localhost:3306/mydatabase", "root", "password");

**Statement** stmt = con.**createStatement**();

**ResultSet** rs = stmt.**executeQuery**("SELECT \* FROM Products");

            out.**println**("<html><head><title>Product Details</title></head><body><table border='1'><tr><th>ProdCode</th><th>PName</th><th>Price</th></tr>");

            while (rs.**next**()) {

**String** prodCode = rs.**getString**("ProdCode");

**String** pName = rs.**getString**("PName");

**String** price = rs.**getString**("Price");

                out.**println**("<tr><td>" + prodCode + "</td><td>" + pName + "</td><td>" + price + "</td></tr>");

            }

            out.**println**("</table></body></html>");

            con.**close**();

        } catch (**Exception** e) {

            out.**println**(e);

        }

    }

}

**Dot Net Framework**

A) Write a program that demonstrates the use of primitive data types in C#. The

 program should also support the type conversion of :

● Integer to String

● String to Integer

Answer :

namespace WinFormsApp19

{

    public partial class Form1 : Form

    {

        public Form1()

        {

            InitializeComponent();

        }

        private void button1\_Click(object sender, EventArgs e)

        {

            int num = Convert.ToInt32(textBox1.Text);

            label1.Text = "Before conversion  : " + num.GetType();

            String str = Convert.ToString(num);

            label2.Text = "After conversion: " + str.GetType();

        }

        private void button2\_Click(object sender, EventArgs e)

        {

            label1.Text = "Before conversion  : " + textBox1.Text.GetType();

            int num = Convert.ToInt32(textBox1.Text);

            label2.Text = "After conversion: " + num.GetType();

        }

    }

}

Output :

 B) Write ASP.Net program to connect to the master database in SQL Server in the

 Page\_Load event. When the connection is established, the message “Connection has

 been established” should be displayed in a label in the form .

Answer :

Output :

Slip 11

Q.1. Advanced Java:

A) Write a java program to display IPAddress and name of client machine.

Answer :

import **java**.**net**.**InetAddress**;

public class **ClientMachineInfo** {

    public static void **main**(**String**[] args) {

        try {

**InetAddress** clientAddr = **InetAddress**.**getLocalHost**();

**System**.out.**println**("IP address of client machine: " + clientAddr.**getHostAddress**());

**System**.out.**println**("Name of client machine: " + clientAddr.**getHostName**());

        } catch (**Exception** e) {

**System**.out.**println**("Error while getting client machine info: " + e.**getMessage**());

        }

    }

}

Output :

B) Write a Java program to display sales details of Product (PID, PName, Qty, Rate,

Amount) between two selected dates. (Assume Sales table is already created).

Answer :

import **java**.**sql**.\*;

import **java**.**util**.**Scanner**;

public class **ProductSalesDetails** {

    public static void **main**(**String**[] args) {

**Scanner** sc = new **Scanner**(**System**.in);

*// Prompt user to enter start and end dates*

**System**.out.**print**("Enter start date (YYYY-MM-DD): ");

**String** startDate = sc.**next**();

**System**.out.**print**("Enter end date (YYYY-MM-DD): ");

**String** endDate = sc.**next**();

*// Define database connection variables*

**String** url = "jdbc:mysql://localhost:3306/mydatabase";

**String** user = "root";

**String** password = "password";

*// Define SQL query to fetch sales details of product between two dates*

**String** query = "SELECT PID, PName, Qty, Rate, Amount FROM Sales WHERE SaleDate BETWEEN ? AND ?";

        try {

*// Establish database connection*

**Connection** conn = **DriverManager**.**getConnection**(url, user, password);

*// Prepare SQL statement with parameters for start and end dates*

**PreparedStatement** pstmt = conn.**prepareStatement**(query);

            pstmt.**setString**(1, startDate);

            pstmt.**setString**(2, endDate);

*// Execute the SQL statement and get the result set*

**ResultSet** rs = pstmt.**executeQuery**();

*// Display the sales details in tabular form*

**System**.out.**println**("PID\tPName\tQty\tRate\tAmount");

**System**.out.**println**("-------------------------------------------------");

            while (rs.**next**()) {

                int pid = rs.**getInt**("PID");

**String** pname = rs.**getString**("PName");

                int qty = rs.**getInt**("Qty");

                double rate = rs.**getDouble**("Rate");

                double amount = rs.**getDouble**("Amount");

**System**.out.**println**(pid + "\t" + pname + "\t" + qty + "\t" + rate + "\t" + amount);

            }

*// Close the database connection*

            conn.**close**();

        } catch (**SQLException** e) {

            e.**printStackTrace**();

        }

    }

}

Output :