```
// Design your biodata by using various AWT components.

import java.awt.*;


public class q1 extends Frame {

    public static void main(String[] args) {
        q1 f = new q1();
        f.setSize(300, 200);
        f.setVisible(true);

        Label name = new Label("Name");
        Label nameval = new Label("Durgesh Khade");
        Label roll = new Label("Roll No.");
        Label rollval = new Label("18203A0048");
        Label branch = new Label("Branch");
        Label branchval = new Label("CSE");
        Label college = new Label("College");
        Label collegeval = new Label("VJT");

        f.setLayout(new GridLayout(4, 2));
        f.add(name);
        f.add(nameval);
        f.add(roll);
        f.add(rollval);
        f.add(branch);
        f.add(branchval);
        f.add(college);
        f.add(collegeval);
    }
}
```

```
// Design an applet/Application using List components to add names of 10 different cities.

import java.awt.*;
import java.applet.*;

/* <applet code="q2" width="300" height="200"></applet> */

public class q2 extends Applet {

    public void init() {
        List cities = new List(10);
        cities.add("Mumbai");
        cities.add("Pune");
```

```
        cities.add("Nagpur");
        cities.add("Nashik");
        cities.add("Aurangabad");
        cities.add("Kolhapur");
        cities.add("Solapur");
        cities.add("Amravati");
        cities.add("Akola");
        cities.add("Latur");
        add(cities);

        setSize(300, 200);
        setVisible(true);
    }


}
```

```
// BorderLayout

import java.awt.*;

public class q3 extends Frame {

    public static void main(String[] args) {

        q3 f = new q3();
        f.setSize(300, 200);
        f.setVisible(true);
        f.setLayout(new BorderLayout());

        Button east = new Button("East");
        Button west = new Button("West");
        Button north = new Button("North");
        Button south = new Button("South");

        f.add(east, BorderLayout.EAST);
        f.add(west, BorderLayout.WEST);
        f.add(north, BorderLayout.NORTH);
        f.add(south, BorderLayout.SOUTH);

    }
}
```

```
//  WAP which creates Menu of different colors and disable menu item for Black color.
```

```
import java.awt.*;

public class q4 extends Frame {

    public static void main(String[] args) {

        q4 f = new q4();
        f.setTitle("Menu");
        f.setSize(400, 400);
        f.setVisible(true);

        MenuBar mb = new MenuBar();
        f.setMenuBar(mb);

        Menu m1 = new Menu("Color");
        mb.add(m1);

        MenuItem mi1 = new MenuItem("Red");
        m1.add(mi1);

        MenuItem mi2 = new MenuItem("Green");
        m1.add(mi2);

        MenuItem mi3 = new MenuItem("Blue");
        m1.add(mi3);

        MenuItem mi4 = new MenuItem("Black");
        m1.add(mi4);

        mi4.setEnabled(false);

        MenuItem mi5 = new MenuItem("White");
        m1.add(mi5);


    }
}
```

```
// WAP to develop a frame to select the different states of India using JComboBox
import java.awt.*;
import javax.swing.*;

public class q5 extends JFrame {

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

```
        q5 f = new q5();
        f.setTitle("States");
        f.setSize(400, 400);
        f.setVisible(true);

        Container c = f.getContentPane();
        c.setLayout(new FlowLayout());

        String lang[] = {"Andhra Pradesh", "Arunachal Pradesh", "Assam", "Bihar",
"Chhattisgarh", "Goa", "Gujarat" };

        JComboBox cb = new JComboBox(lang);
        c.add(cb);

    }
}
```

```
// Develop a program to demonstrate the use of tree component in swing.

import java.awt.*;
import javax.swing.*;
import javax.swing.tree.DefaultMutableTreeNode;

public class q6 extends JFrame {

    public static void main(String[] args) {
        q6 f = new q6();
        f.setTitle("Tree");
        f.setSize(400, 400);
        f.setVisible(true);

        Container c = f.getContentPane();
        c.setLayout(new FlowLayout());

        DefaultMutableTreeNode root = new DefaultMutableTreeNode("Root");
        DefaultMutableTreeNode states = new DefaultMutableTreeNode("States");
        DefaultMutableTreeNode cars = new DefaultMutableTreeNode("Cars");
        DefaultMutableTreeNode andhra = new DefaultMutableTreeNode("Andhra Pradesh");
        DefaultMutableTreeNode arunachal = new DefaultMutableTreeNode("Arunachal
Pradesh");
        DefaultMutableTreeNode assam = new DefaultMutableTreeNode("Assam");
        DefaultMutableTreeNode lamborghini = new
DefaultMutableTreeNode("Lamborghini");
        DefaultMutableTreeNode ferrari = new DefaultMutableTreeNode("Ferrari");
        DefaultMutableTreeNode bugatti = new DefaultMutableTreeNode("Bugatti");
```

```
        root.add(states);
        root.add(cars);
        states.add(andhra);
        states.add(arunachal);
        states.add(assam);
        cars.add(lamborghini);
        cars.add(ferrari);
        cars.add(bugatti);

        JTree tree = new JTree(root);
        c.add(tree);
    }
}
```

```
// Develop a program to demonstrate the use of JTable.

import java.awt.*;
import javax.swing.*;

public class q7 extends JFrame {

    public static void main(String[] args) {
        q7 f = new q7();
        f.setTitle("Table");
        f.setSize(400, 400);
        f.setVisible(true);

        Container c = f.getContentPane();
        c.setLayout(new FlowLayout());

        String data[][] = {{"1", "2", "3"}, {"4", "5", "6"}, {"7", "8", "9"}};
        String th[] = {"A", "B", "C"};

        JTable table = new JTable(data, th);

        c.add(table);
    }
}
```

```
// WAP to demonstrate various mouse events using MouseListener and MouseMotionListener
interface

import java.awt.*;
import java.awt.event.*;
```

```
import javax.swing.*;

public class q8 extends JFrame implements MouseListener, MouseMotionListener {

    public static void main(String[] args) {
        q8 f = new q8();
        f.setTitle("Mouse Events");
        f.setSize(400, 400);
        f.setVisible(true);

        Container c = f.getContentPane();
        c.setLayout(new FlowLayout());

        f.addMouseListener(f);
        f.addMouseMotionListener(f);
    }

    public void mouseClicked(MouseEvent e) {
        System.out.println("Mouse Clicked");
    }

    public void mouseEntered(MouseEvent e) {
        System.out.println("Mouse Entered");
    }

    public void mouseExited(MouseEvent e) {
        System.out.println("Mouse Exited");
    }

    public void mousePressed(MouseEvent e) {
        System.out.println("Mouse Pressed");
    }

    public void mouseReleased(MouseEvent e) {
        System.out.println("Mouse Released");
    }

    public void mouseDragged(MouseEvent e) {
        System.out.println("Mouse Dragged");
    }

    public void mouseMoved(MouseEvent e) {
        System.out.println("Mouse Moved");
    }

}
```

```
// WAP to demonstrate the use of JTextfield and JPasswordField using Listener interface

import java.awt.*;
import javax.swing.*;
import java.awt.event.*;

public class q9 extends JFrame implements ActionListener {

    public static JTextField username;
    public static JPasswordField password;
    public static JButton submit;
    public static JLabel message;

    public static void main(String[] args) {
        q9 f = new q9();
        f.setTitle("Login");
        f.setSize(400, 400);
        f.setVisible(true);

        Container c = f.getContentPane();
        c.setLayout(new FlowLayout());

        JLabel l1 = new JLabel("Username");
        f.add(l1);

        username = new JTextField(20);
        f.add(username);

        JLabel l2 = new JLabel("Password");
        f.add(l2);

        password = new JPasswordField(20);
        f.add(password);

        submit = new JButton("Submit");
        f.add(submit);

        message = new JLabel("");
        f.add(message);

        submit.addActionListener(f);

        f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    }

    public void actionPerformed(ActionEvent e) {
        String user = username.getText();
        String pass = password.getText();
```

```
        if (e.getSource() == submit) {
            if (user.equals("admin") && pass.equals("admin")) {
                message.setText("Login Successful");
            } else {
                message.setText("Login Failed");
            }
        }
    }
}
```

```
// WAP to demonstrate the use of WindowAdapter class
import java.awt.*;
import java.awt.event.*;

public class q10 extends Frame {
    public q10() {
        setSize(400, 300);

        addWindowListener(new MyWindowAdapter());

        setVisible(true);
    }

    class MyWindowAdapter extends WindowAdapter {
        public void windowClosing(WindowEvent e) {
            System.out.println("Window is closing...");
            System.exit(0);
        }

        public void windowActivated(WindowEvent e) {
            System.out.println("Window is activated");
        }

        public void windowDeactivated(WindowEvent e) {
            System.out.println("Window is deactivated");
        }
    }

    public static void main(String[] args) {
        new q10();
    }
}
```

```java
// WAP to demonstrate the use of InetAddress class and its factory methods

import java.net.*;

public class q11 {
    public static void main(String[] args) throws UnknownHostException{

        InetAddress localAddress = InetAddress.getLocalHost();

        System.out.println("Local Host Name: " + localAddress.getHostName());
        System.out.println("Local Host address: " + localAddress.getHostAddress());

        String website = "www.youtube.com";

        InetAddress address = InetAddress.getByName(website);
        System.out.println("Website Name: " + website);
        System.out.println("Host Name: " + address.getHostName());
        System.out.println("Host address: " + address.getHostAddress());

        InetAddress[] addresses = InetAddress.getAllByName(website);
        System.out.println("Website Name: " + website);
        for (int i = 0; i < addresses.length; i++){
            System.out.println("Host Name: " + addresses[i].getHostName());
            System.out.println("Host address: " + addresses[i].getHostAddress());
        }
    }
}
```

```java
// WAP to demonstrate the use of URL and URLConnection class and its methods

import java.net.*;

public class q12 {

    public static void main(String[] args) {

        try {
            URL url = new URL("https://www.google.com/");
            URLConnection urlConnection = url.openConnection();

            System.out.println("Protocol: " + url.getProtocol());
            System.out.println("Host Name: " + url.getHost());
            System.out.println("Port Number: " + url.getPort());
            System.out.println("Path: " + url.getPath());

            System.out.println("Content Type: " + urlConnection.getContentType());
            System.out.println("Content: " + urlConnection.getContent());
            System.out.println("Content Length: " + urlConnection.getContentLength());
```

```
            System.out.println("Date: " + urlConnection.getDate());
        } catch (Exception e) {
            System.out.println(e);
        }

    }
}
```

```
// WAP to insert and retrieve the data from database using JDBC

import java.sql.*;

public class q13 {
    public static void main(String[] args) throws Exception{
        String url = "jdbc:mysql://localhost:3306/";
        String uname = "root";
        String password = "durgesh";

        Class.forName("com.mysql.cj.jdbc.Driver");
        Connection con = DriverManager.getConnection(url, uname, password);


        // String query = "INSERT INTO student ('name', 'rollno', 'marks') VALUES ('Atharv',
'1', '100');";

        // Statement st = con.createStatement();
        // int n = st.executeUpdate(query);
        // System.out.println(n + " row(s) affected");

        // query = "SELECT * FROM student;";
        // ResultSet rs = st.executeQuery(query);

        // while(rs.next()){
        //     String userData = rs.getString("name") + " : " + rs.getString("rollno") + " : " +
rs.getString("marks");
        //     System.out.println(userData);
        // }

        // st.close();
        // con.close();
    }
}
```

1. index.html

```html
<html>

<head>

<body>
   <form method=get action="http://localhost:8080/atharv/servlet/password ">
      Name:<input type="text" name="t1"><br>
      password:<input type="password" name="t2"><br>
      <input type="submit">
   </form>
</body>

</html>
```

1. demo.java

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

public class demo extends HttpServlet {

  public void doGet(HttpServletRequest request, HttpServletResponse response)
    throws IOException, ServletException {
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<html>");
```

```
    out.println("<head>");
    out.println("<title>Hello World!</title>");
    out.println("</head>");
    out.println("<body>");
    String a = request.getParameter("t1");
    String b = request.getParameter("t2");
    if (b.length() <= 6) {
      out.println("<h3> Welcome  To  Home Page<h3>");
    } else {
      out.println("<h3>Password Should not more than 6 Character<h3>");
    }
    out.println("</body>");
    out.println("</html>");
  }
}
```

1. web.xml

```xml
<web-app>
<servlet>
  <servlet-name>password</servlet-name>
  <servlet-class>password</servlet-class>
</servlet>
<servlet-mapping>
  <servlet-name>password</servlet-name>
  <url-pattern>/servlet/password</url-pattern>
</servlet-mapping>
</web-app>
```

```
```