PROGRAM CODE :

import java.awt.\*;

import java.awt.event.\*;

import javax.swing.\*;

public class JRockPaperScissors extends JApplet implements ActionListener {

Font large = new Font("Arial", Font.BOLD, 30);

JLabel rockPaper = new JLabel("Rock, Paper, Scissors");

Font medium = new Font("Arial", Font.BOLD, 15);

JLabel oneButton = new JLabel("Choose one button");

JLabel results = new JLabel("------Results------");

JPanel panel1 = new JPanel();

JPanel panel1a = new JPanel(new FlowLayout(FlowLayout.LEFT));

JPanel panel1b = new JPanel(new FlowLayout(FlowLayout.LEFT));

JPanel panel1c = new JPanel(new FlowLayout(FlowLayout.LEFT));

JPanel panel1d = new JPanel(new FlowLayout(FlowLayout.LEFT));

JPanel panel1e = new JPanel(new FlowLayout(FlowLayout.LEFT));

// buttons

JButton rock = new JButton("Rock");

JButton paper = new JButton("Paper");

JButton scissors = new JButton("Scissors");

// for results

JLabel yourPick = new JLabel();

JLabel dashes = new JLabel();

JLabel compPick = new JLabel();

JLabel winner = new JLabel();

JLabel you = new JLabel();

JLabel computer = new JLabel();

JLabel ties = new JLabel();

// # games player has won, tied, or lost

JLabel won = new JLabel();

JLabel tied = new JLabel();

JLabel lost = new JLabel();

// stores scores, ties, and wins

int yourScore;

int compScore;

int tieCount;

int win;

{

setSize(450, 295);

setLayout(new FlowLayout());

add(rockPaper); rockPaper.setFont(large);

add(oneButton); oneButton.setFont(medium);

add(rock); add(paper); add(scissors);

rock.addActionListener(this);

paper.addActionListener(this);

scissors.addActionListener(this);

add(panel1);

panel1.setLayout(new GridLayout(5,1));

panel1.setAlignmentX(Component.LEFT\_ALIGNMENT);

panel1.add(panel1a); panel1.add(panel1b); panel1.add(panel1c); panel1.add(panel1d); panel1.add(panel1e);

panel1a.add(results); results.setFont(medium); results.setVisible(false);

panel1b.add(yourPick); panel1b.add(dashes); panel1b.add(compPick);

panel1c.add(winner);

panel1d.add(you); panel1d.add(computer); panel1d.add(ties);

panel1e.add(won); panel1e.add(tied); panel1e.add(lost);

}

public void actionPerformed(ActionEvent arg0) {

results.setVisible(true);

int computerChoice = (int) (Math.random() \* 3);

String[] picks = {"rock", "paper", "scissors"};

compPick.setText("Computer picked " + picks[computerChoice]);

Object choice = arg0.getSource();

if (choice == rock) {

yourPick.setText("You picked rock");

if (picks[computerChoice].equals("rock")) {

tieCount++; win = 0;

}

else if (picks[computerChoice].equals("paper")) {

compScore++; win = -1;

}

else if (picks[computerChoice].equals("scissors")) {

yourScore++; win = 1;

}

}

else if (choice == paper) {

yourPick.setText("You picked paper");

// computer chose rock

if (picks[computerChoice].equals("rock")) {

yourScore++; win = 1;

}

else if (picks[computerChoice].equals("paper")) {

tieCount++; win = 0;

}

else if (picks[computerChoice].equals("scissors")) {

compScore++; win = -1;

}

}

else if (choice == scissors) {

yourPick.setText("You picked scissors");

// computer chose rock

if (picks[computerChoice].equals("rock")) {

compScore++; win = -1;

}

// computer chose paper

else if (picks[computerChoice].equals("paper")) {

yourScore++; win = 1;

}

else if (picks[computerChoice].equals("scissors")) {

tieCount++; win = 0;

}

}

dashes.setText("------");

String winString = "Winner: ";

if (win == -1) {

winner.setText(winString + "computer");

} else if (win == 0) {

winner.setText(winString + "none");

} else if (win == 1) {

winner.setText(winString + "you");

}

you.setText("You: " + yourScore);

computer.setText("Computer: " + compScore);

ties.setText("Ties: " + tieCount);

won.setText("Games you have won: " + yourScore);

tied.setText("tied: " + tieCount);

lost.setText("lost: " + compScore);

}

public void paint(Graphics g) {

super.paint(g);

}

}

Output:

