

Week7 - Batch3

Monday, December 27, 2021 10:30 AM

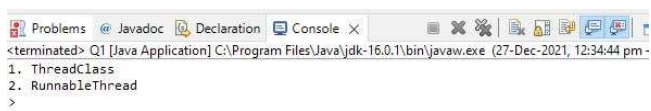
1. Write a menu driven program to create thread using runnable interface and inheriting thread class. [Hint: Make use of Extends and Implements keywords]

```
import java.util.Scanner;

class ThreadClass extends Thread{
    public void run() {
        try {
            System.out.println("Created Using Thread Class");
        }
        catch(Exception e) {
            System.out.println(e+ "ThreadClass Exception");
        }
    }
}

class RunnableThread implements Runnable{
    public void run() {
        try {
            System.out.println("Created Using Runnable");
        }
        catch(Exception e) {
            System.out.println(e + "Runnable Exception");
        }
    }
}

public class Q1{
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("1. ThreadClass");
        System.out.println("2. RunnableThread");
        System.out.println(">");
        int n = sc.nextInt();
        switch(n) {
            case 1:{
                ThreadClass ob1 = new ThreadClass();
                ob1.start();
                break;
            }
            case 2:{
                Thread ob2 = new Thread(new RunnableThread());
                ob2.start();
                break;
            }
            default:{
                System.out.println("Enter Valid Choice!");
            }
        }
    }
}
```



```
Created Using Thread Class

<terminated> Q1 [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (27-Dec-2021, 12:36:14 pm)
1. ThreadClass
2. RunnableThread
>
2
Created Using Runnable

<terminated> Q1 [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (27-Dec-2021, 12:36:42 pm)
1. ThreadClass
2. RunnableThread
>
79
Enter Valid Choice!
```

2. Write a program to create multiple threads. [Hint: Multiple instances of thread]

```
class MultithreadingDemo extends Thread {
    public void run()
    {
        try {
            // Displaying the thread that is running
            System.out.println(
                Thread.currentThread().getId()
                + "th Thread is running");
        }
        catch (Exception e) {
            // Throwing an exception
            System.out.println("Exception is caught");
        }
    }
}

// Main Class
public class Multithread {
    public static void main(String[] args)
    {
        int n = 8; // Number of threads
        for (int i = 0; i < n; i++) {
            MultithreadingDemo object
                = new MultithreadingDemo();
            object.start();
        }
    }
}
```

```
<terminated> Multithread [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (27-Dec-2021, 10:58:06 am - 10:58:08 am)
14th Thread is running
15th Thread is running
16th Thread is running
17th Thread is running
18th Thread is running
19th Thread is running
20th Thread is running
21th Thread is running
```

3. Write a java application using swings (hello world swing) to display "HELLO WORLD". Use a button, when clicked the a window should pop up with a text "BEAUTIFUL WORLD"

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

public class Q3{
    public static void main(String args[])
    {

        JFrame f = new JFrame("Screen");

        f.setMinimumSize(new Dimension(600, 600));
        f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        Button b=new Button("Button");
        b.setBounds(100,100,100,100);
        b.addActionListener(new ActionListener()
        {
            public void actionPerformed (ActionEvent e)
            {
                JFrame f = new JFrame("Pop Up");
                f.setMinimumSize(new Dimension(300, 300));
                f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
                JLabel text = new JLabel("BEAUTIFUL WORLD", SwingConstants.CENTER);
                f.getContentPane().add(text);
                f.pack();
                f.setVisible(true);
            }
        });

        f.add(b);

        JLabel Text = new JLabel("HELLO WORLD!", SwingConstants.CENTER);
        f.getContentPane().add(Text);
        f.pack();

        f.setSize(200,200);
        f.setLayout(null);
        f.setVisible(true);
    }
}
```

```
23         JLabel text = new JLabel("BEAUTIFUL WORLD", SwingConsta
24         f.getContentPane().add(text);
25         f.pack();
26         f.setVisible(true);
27     }
28 });
29
30 f.add(b);
31
32 JLabel Text = new JLabel("HELLO WORLD!", SwingConstants.CENTER)
33 f.getContentPane().add(Text);
34 f.pack();
```



35

Problems Javadoc Declaration Console X

Q3 [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (27-Dec-2021, 11:59:43 am)

Button

HELLO WORLD!