**Aim:** a. Create a swing application that randomly changes color on button click

**Code:**

import javax.swing.\*;

import java.awt.\*;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import java.util.Random;

public class RandomColorSwingApp extends JFrame

{

    private JButton changeColorButton;

    public RandomColorSwingApp()

    {

        setTitle("Random Color Swing App");

        setSize(400, 300);

        setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

        setLocationRelativeTo(null);

        changeColorButton = new JButton("Change Color");

        changeColorButton.addActionListener(new ActionListener()

        {

            public void actionPerformed(ActionEvent e)

            {

                changeBackgroundColor();

            }

        }

);

        setLayout(new BorderLayout());

        add(changeColorButton, BorderLayout.CENTER);

        setVisible(true);

    }

    private void changeBackgroundColor()

    {

        Random random = new Random();

        int red = random.nextInt(256);

        int green = random.nextInt(256);

        int blue = random.nextInt(256);

        Color randomColor = new Color(red, green, blue);

        getContentPane().setBackground(randomColor);

    }

    public static void main(String[] args)

    {

        SwingUtilities.invokeLater(new Runnable()

        {

            public void run()

            {

                new RandomColorSwingApp();

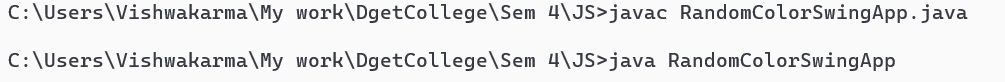
            }

        });

    }

}

**Output:**

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A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

**Aim:** c. Create a Swing application to demonstrate use of scroll pane to change its color selected using colour chooser.

**Code:**