**Code & Output:**

import java.awt.\*;

import java.awt.event.\*;

import javax.swing.JButton;

import javax.swing.JFrame;

public class ColorPalette extends JFrame implements ActionListener {

private JFrame frame;

private JButton red, blue, yellow, black, m, g, p, cy, o, d;

public ColorPalette() {

frame = this;

Font font = new Font("Lucida Calligraphy", Font.BOLD, 12);

frame.setTitle("Colorful Window");

Color c = new Color(255, 255, 255);

red = new JButton("Red");

red.setBounds(40, 100, 80, 40);

red.setFont(font);

red.setBackground(c);

red.addActionListener(this);

add(red);

blue = new JButton("Blue");

blue.setBounds(150, 100, 100, 40);

blue.setFont(font);

blue.setBackground(c);

blue.addActionListener(this);

add(blue);

yellow = new JButton("Yellow");

yellow.setBounds(300, 100, 100, 40);

yellow.setFont(font);

yellow.setBackground(c);

yellow.addActionListener(this);

add(yellow);

black = new JButton("Black");

black.setBounds(40, 200, 100, 40);

black.setFont(font);

black.setBackground(c);

black.addActionListener(this);

add(black);

m = new JButton("Magenta");

m.setBounds(150, 200, 100, 40);

m.setFont(font);

m.setBackground(c);

m.addActionListener(this);

add(m);

g = new JButton("Green");

g.setBounds(300, 200, 100, 40);

g.setFont(font);

g.setBackground(c);

g.addActionListener(this);

add(g);

p = new JButton("Pink");

p.setBounds(40, 300, 100, 40);

p.setFont(font);

p.setBackground(c);

p.addActionListener(this);

add(p);

cy = new JButton("Cyan");

cy.setBounds(150, 300, 100, 40);

cy.setFont(font);

cy.setBackground(c);

cy.addActionListener(this);

add(cy);

o = new JButton("Orange");

o.setBounds(300, 300, 100, 40);

o.setFont(font);

o.setBackground(c);

o.addActionListener(this);

add(o);

d = new JButton("Dark Grey");

d.setBounds(200, 400, 150, 40);

d.setFont(font);

d.setBackground(c);

d.addActionListener(this);

add(d);

frame.getContentPane().setBackground(Color.WHITE);

frame.setLayout(null);

frame.setSize(650, 600);

frame.setVisible(true);

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

}

@Override

public void actionPerformed(ActionEvent ae) {

if (ae.getSource() == red) {

frame.getContentPane().setBackground(Color.RED);

} else if (ae.getSource() == blue) {

frame.getContentPane().setBackground(Color.BLUE);

} else if (ae.getSource() == yellow) {

frame.getContentPane().setBackground(Color.YELLOW);

} else if (ae.getSource() == black) {

frame.getContentPane().setBackground(Color.BLACK);

} else if (ae.getSource() == m) {

frame.getContentPane().setBackground(Color.MAGENTA);

} else if (ae.getSource() == g) {

frame.getContentPane().setBackground(Color.GREEN);

} else if (ae.getSource() == p) {

frame.getContentPane().setBackground(Color.PINK);

} else if (ae.getSource() == cy) {

frame.getContentPane().setBackground(Color.CYAN);

} else if (ae.getSource() == o) {

frame.getContentPane().setBackground(Color.ORANGE);

} else if (ae.getSource() == d) {

frame.getContentPane().setBackground(Color.DARK\_GRAY);

}

}

public static void main(String[] args) {

new ColorPalette();

}

}