

A68
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Q1)

```
class Food {
    private final String fruit;
    private final String milk;
    private final String butter;
    private final String vanilla;
    private final String flour;
    private Food(UserBuilder i){
        this.fruit=i.fruit;
        this.milk=i.milk;
        this.butter=i.butter;
        this.vanilla=i.vanilla;
        this.flour=i.flour;
    }
    public String getFruit(){
        return fruit;
    }
    public String getMilk(){
        return milk;
    }
    public String getButter(){
        return butter;
    }
    public String getVanilla(){
        return vanilla;
    }
    public String getflour(){
        return flour;
    }

    @Override
    public String toString() {
        return "Food [fruit=" + fruit + ", milk=" + milk +",
        butter=" + butter + ", vanilla=" + vanilla + ", flour="
            + flour + "]";
    }

    static class UserBuilder {
        private String fruit;
        private String milk;
        private String butter;
        private String vanilla;
        private String flour;

        UserBuilder(String fruit, String milk){
```

```

        this.fruit=fruit;
        this.milk=milk;
    }
    public UserBuilder setUserButter(String butter){
        this.butter=butter;
        return this;
    }
    public UserBuilder setUserVanilla(String vanilla){
        this.vanilla=vanilla;
        return this;
    }
    public UserBuilder setUserFlour(String flour){
        this.flour=flour;
        return this;
    }
    public Food build(){
        Food f=new Food(this);
        return f;
    }
}
}

public class Deo {
    public static void main(String[] args) {
        Food f1=new
Food.UserBuilder("apple","milk").setUserButter("butter").build
();
        System.out.println(f1);
    }
}

```

The screenshot shows a Java development environment with the following details:

- IDE Layout:** The interface includes an Explorer panel on the left listing files like Deo.class, Deo.java, Food.class, etc. A central editor pane displays the Java code provided in the snippet. A bottom navigation bar contains tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, PORTS, SQL CONSOLE, and SEARCH ERROR.
- Output Tab:** The OUTPUT tab is active, showing the terminal logs of the application's execution. It includes commands run in the terminal and their corresponding outputs.
- Terminal Log:**

```

Click here to ask Blackbox to help you code faster
[Running] cd "/Users/shivamverma/Documents/Test/" && javac ToggleButtonDemo.java && java ToggleButtonDemo
[Done] exited with code=null in 13.787 seconds

[Running] cd "/Users/shivamverma/Documents/Test/" && javac ToggleButtonDemo.java && java ToggleButtonDemo
[Done] exited with code=null in 7.559 seconds

[Running] cd "/Users/shivamverma/Documents/Test/" && javac Deo.java && java Deo
Food [fruit=apple, milk=milk, butter=butter, vanilla=null, flour=null]

[Done] exited with code=0 in 0.559 seconds

```

Q2)

```
import java.awt.Color;
import java.awt.Container;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import javax.swing.JButton;
import javax.swing.JFrame;

public class ToggleButtonDemo {
    public static void main(String[] args) {
        JFrame jf=new JFrame("Toggle button");
        jf.setBounds(100, 100, 900, 600);
        jf.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        Container container=jf.getContentPane();
        container.setLayout(null);
        container.setBackground(Color.RED);

        JButton button=new JButton("Red");
        button.setBounds(100, 100, 200, 60);
        container.add(button);

        button.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e){
                if(container.getBackground()==Color.red){
                    container.setBackground(Color.yellow);
                    button.setText("Yellow");
                }else{
                    container.setBackground(Color.red);
                    button.setText("Red");
                }
            }
        });
        jf.setVisible(true);
    }
}
```

