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package com.miniprojects;

import java.util.Scanner;

// Pizza Interface
interface Pizza {
    double getPrice();
    String getDescription();
}

// Concrete classes implementing the Pizza interface
class VegPizza implements Pizza {
    private double basePrice = 300;
    private boolean extraCheese;
    private boolean extraToppings;

    public VegPizza(boolean extraCheese, boolean extraToppings) {
        this.extraCheese = extraCheese;
        this.extraToppings = extraToppings;
    }

    @Override
    public double getPrice() {
        double total = basePrice;
        if (extraCheese) total += 100;
        if (extraToppings) total += 150;
        return total;
    }

    @Override
    public String getDescription() {
        return "Veg Pizza" + (extraCheese ? " + Extra Cheese" : "") + (extraToppings ? "
+ Extra Toppings" : "");
    }
}

class NonVegPizza implements Pizza {
    private double basePrice = 400;
    private boolean extraCheese;
    private boolean extraToppings;

    public NonVegPizza(boolean extraCheese, boolean extraToppings) {
        this.extraCheese = extraCheese;
        this.extraToppings = extraToppings;
    }

    @Override
    public double getPrice() {
        double total = basePrice;
        if (extraCheese) total += 100;
        if (extraToppings) total += 150;
        return total;
    }
}

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        @Override
        public String getDescription() {
            return "Non-Veg Pizza" + (extraCheese ? " + Extra Cheese" : "") + (extraToppings
? " + Extra Toppings" : "");
        }
    }

class DeluxeVegPizza implements Pizza {
    private double basePrice = 550;

    @Override
    public double getPrice() {
        return basePrice;
    }

    @Override
    public String getDescription() {
        return "Deluxe Veg Pizza (includes extra cheese & toppings)";
    }
}

class DeluxeNonVegPizza implements Pizza {
    private double basePrice = 650;

    @Override
    public double getPrice() {
        return basePrice;
    }

    @Override
    public String getDescription() {
        return "Deluxe Non-Veg Pizza (includes extra cheese & toppings)";
    }
}

// PizzaOrder class (Handles user input and ordering)
class PizzaOrder {
    private Scanner scanner = new Scanner(System.in);

    public void takeOrder() {
        System.out.println("Welcome to Pizza Order System!");
        System.out.println("1. Veg Pizza (INR300)");
        System.out.println("2. Non-Veg Pizza (INR400)");
        System.out.println("3. Deluxe Veg Pizza (INR550) -- already loaded with extra
cheese & extra toppings");
        System.out.println("4. Deluxe Non-Veg Pizza (INR650) -- already loaded with
extra cheese & extra toppings");
        System.out.print("Enter your choice (1-4): ");

        int choice = scanner.nextInt();
        Pizza pizza = null;
        boolean extraCheese = false, extraToppings = false;

        switch (choice) {

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        case 1:
            extraCheese = askExtra("cheese");
            extraToppings = askExtra("toppings");
            pizza = new VegPizza(extraCheese, extraToppings);
            break;
        case 2:
            extraCheese = askExtra("cheese");
            extraToppings = askExtra("toppings");
            pizza = new NonVegPizza(extraCheese, extraToppings);
            break;
        case 3:
            pizza = new DeluxeVegPizza();
            break;
        case 4:
            pizza = new DeluxeNonVegPizza();
            break;
        default:
            System.out.println("Invalid choice.");
            return;
    }

    boolean takeAway = askExtra("takeaway");
    double totalPrice = pizza.getPrice() + (takeAway ? 20 : 0);

    printBill(pizza, takeAway, totalPrice);
}

private boolean askExtra(String type) {
    System.out.print("Do you want extra " + type + "? (y/n): ");
    return scanner.next().equalsIgnoreCase("y");
}

private void printBill(Pizza pizza, boolean takeAway, double totalPrice) {
    System.out.println("\n--- Bill ---");
    System.out.println("Item: " + pizza.getDescription());
    System.out.println("Base Price: INR" + pizza.getPrice());
    if (takeAway) {
        System.out.println("Take Away Charges: INR20");
    }
    System.out.println("Total Amount: INR" + totalPrice);
}

// Driver class
public class Main {
    public static void main(String[] args) {
        PizzaOrder order = new PizzaOrder();
        order.takeOrder();
    }
}

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