

## INTERNSHIP STUDIO PROJECT:

```
package Pizza;

import java.util.Scanner;

//Abstract class for Pizza
abstract class Pizza {
    protected int price;
    protected boolean extraCheese;
    protected boolean extraToppings;
    protected boolean takeAway;

    // Constructor to initialize the base price
    public Pizza(int price) {
        this.price = price;
        this.extraCheese = false;
        this.extraToppings = false;
        this.takeAway = false;
    }

    // Method to add extra cheese
    public void addExtraCheese() {
        this.extraCheese = true;
        this.price += 100; // Extra cheese cost
    }

    // Method to add extra toppings
    public void addExtraToppings() {
        this.extraToppings = true;
        this.price += 150; // Extra toppings cost
    }
}
```

```
// Method to add take-away charges
```

```
public void addTakeAway() {  
    this.takeAway = true;  
    this.price += 20; // Takeaway packaging cost  
}
```

```
// Abstract method to print the bill
```

```
public abstract void printBill();  
}
```

```
//VegPizza class
```

```
class VegPizza extends Pizza {  
    public VegPizza() {  
        super(300); // Veg Pizza base price  
    }  
}
```

```
@Override
```

```
public void printBill() {  
    System.out.println("Veg Pizza: ₹300");  
    if (extraCheese) System.out.println("Extra Cheese: ₹100");  
    if (extraToppings) System.out.println("Extra Toppings: ₹150");  
    if (takeAway) System.out.println("Take Away: ₹20");  
    System.out.println("Total: ₹" + price);  
}  
}
```

```
//NonVegPizza class
```

```
class NonVegPizza extends Pizza {  
    public NonVegPizza() {  
        super(400); // Non-Veg Pizza base price  
    }  
}
```

```
}
```

```
@Override
```

```
public void printBill() {
```

```
    System.out.println("Non-Veg Pizza: ₹400");
```

```
    if (extraCheese) System.out.println("Extra Cheese: ₹100");
```

```
    if (extraToppings) System.out.println("Extra Toppings: ₹150");
```

```
    if (takeAway) System.out.println("Take Away: ₹20");
```

```
    System.out.println("Total: ₹" + price);
```

```
}
```

```
}
```

```
//DeluxVegPizza class (already includes extra cheese and toppings)
```

```
class DeluxVegPizza extends Pizza {
```

```
    public DeluxVegPizza() {
```

```
        super(550); // Delux Veg Pizza base price with extra cheese and toppings included
```

```
        addExtraCheese();
```

```
        addExtraToppings();
```

```
}
```

```
@Override
```

```
public void printBill() {
```

```
    System.out.println("Delux Veg Pizza: ₹550 (Includes Extra Cheese & Toppings)");
```

```
    if (takeAway) System.out.println("Take Away: ₹20");
```

```
    System.out.println("Total: ₹" + price);
```

```
}
```

```
}
```

```
//DeluxNonVegPizza class (already includes extra cheese and toppings)
```

```
class DeluxNonVegPizza extends Pizza {
```

```
    public DeluxNonVegPizza() {
```

```
        super(650); // Delux Non-Veg Pizza base price with extra cheese and toppings included
        addExtraCheese();
        addExtraToppings();
    }
```

```
@Override
public void printBill() {
    System.out.println("Delux Non-Veg Pizza: ₹650 (Includes Extra Cheese & Toppings)");
    if (takeAway) System.out.println("Take Away: ₹20");
    System.out.println("Total: ₹" + price);
}
}
```

```
//Main class for PizzaBillGenerator
public class PizzaBillGenerator {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        Pizza pizza = null;

        // Display menu to the user
        System.out.println("Welcome to Pizzamania!");
        System.out.println("Select Pizza Type:");
        System.out.println("1. Veg Pizza");
        System.out.println("2. Non-Veg Pizza");
        System.out.println("3. Delux Veg Pizza");
        System.out.println("4. Delux Non-Veg Pizza");

        int choice = scanner.nextInt(); // Capture user input

        // Create the corresponding pizza object based on user input
        switch (choice) {
```

```

case 1:
    pizza = new VegPizza();
    break;
case 2:
    pizza = new NonVegPizza();
    break;
case 3:
    pizza = new DeluxVegPizza();
    break;
case 4:
    pizza = new DeluxNonVegPizza();
    break;
default:
    System.out.println("Invalid Choice!");
    return;
}

// Ask for extras if the pizza is not a Delux pizza
if (!(pizza instanceof DeluxVegPizza) && !(pizza instanceof DeluxNonVegPizza)) {
    System.out.println("Do you want extra cheese? (y/n)");
    char cheeseChoice = scanner.next().charAt(0);
    if (cheeseChoice == 'y' || cheeseChoice == 'Y') {
        pizza.addExtraCheese();
    }

    System.out.println("Do you want extra toppings? (y/n)");
    char toppingsChoice = scanner.next().charAt(0);
    if (toppingsChoice == 'y' || toppingsChoice == 'Y') {
        pizza.addExtraToppings();
    }
}

```

```

// Ask for take-away packaging

System.out.println("Do you want take away packaging? (y/n)");

char takeAwayChoice = scanner.next().charAt(0);

if (takeAwayChoice == 'y' || takeAwayChoice == 'Y') {

    pizza.addTakeAway();

}

// Print the final bill

System.out.println("\n--- Bill ---");

pizza.printBill();

}

}

```

#### OUTPUT

```

Welcome to Pizzamania!
Select Pizza Type:
1. Veg Pizza
2. Non-Veg Pizza
3. Delux Veg Pizza
4. Delux Non-Veg Pizza
1
Do you want extra cheese? (y/n)
N
Do you want extra toppings? (y/n)
Y
Do you want take away packaging? (y/n)
Y

--- Bill ---
Veg Pizza: ₹300
Extra Toppings: ₹150
Take Away: ₹20
Total: ₹470

```

Welcome to Pizzamania!

Select Pizza Type:

1. Veg Pizza
2. Non-Veg Pizza
3. Delux Veg Pizza
4. Delux Non-Veg Pizza

4

Do you want take away packaging? (y/n)

N

--- Bill ---

Delux Non-Veg Pizza: ₹650 (Includes Extra Cheese & Toppings)

Total: ₹900

Welcome to Pizzamania!

Select Pizza Type:

1. Veg Pizza
2. Non-Veg Pizza
3. Delux Veg Pizza
4. Delux Non-Veg Pizza

2

Do you want extra cheese? (y/n)

Y

Do you want extra toppings? (y/n)

N

Do you want take away packaging? (y/n)

Y

--- Bill ---

Non-Veg Pizza: ₹400

Extra Cheese: ₹100

Take Away: ₹20

Total: ₹520

Welcome to Pizzamania!

Select Pizza Type:

1. Veg Pizza
2. Non-Veg Pizza
3. Delux Veg Pizza
4. Delux Non-Veg Pizza

3

Do you want take away packaging? (y/n)

Y

|

--- Bill ---

Delux Veg Pizza: ₹550 (Includes Extra Cheese & Toppings)

Take Away: ₹20

Total: ₹820

Welcome to Pizzamania!

Select Pizza Type:

1. Veg Pizza
2. Non-Veg Pizza
3. Delux Veg Pizza
4. Delux Non-Veg Pizza

2

Do you want extra cheese? (y/n)

Y

Do you want extra toppings? (y/n)

Y

Do you want take away packaging? (y/n)

Y

|

--- Bill ---

Non-Veg Pizza: ₹400

Extra Cheese: ₹100

Extra Toppings: ₹150

Take Away: ₹20

Total: ₹670