

## Slip 23

### 10 Marks:

```
java
Copy code
import java.util.Scanner;

public class Rectangle {
    int length, breadth;

    public Rectangle(int length, int breadth) {
        this.length = length;
        this.breadth = breadth;
    }

    public int area() {
        return length * breadth;
    }

    public int perimeter() {
        return 2 * (length + breadth);
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter length of the rectangle: ");
        int length = sc.nextInt();
        System.out.print("Enter breadth of the rectangle: ");
        int breadth = sc.nextInt();

        Rectangle rectangle = new Rectangle(length, breadth);
        System.out.println("Area: " + rectangle.area());
        System.out.println("Perimeter: " + rectangle.perimeter());
    }
}
```

### 20 Marks:

```
java
Copy code
import java.util.Scanner;

abstract class Order {
    String id, description;

    public Order(String id, String description) {
        this.id = id;
        this.description = description;
    }

    public abstract void accept();

    public void display() {
        System.out.println("Order ID: " + id);
    }
}
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        System.out.println("Description: " + description);
    }
}

class PurchaseOrder extends Order {
    String customerName;

    public PurchaseOrder(String id, String description, String customerName)
    {
        super(id, description);
        this.customerName = customerName;
    }

    @Override
    public void accept() {
        System.out.println("Accepting Purchase Order for customer: " +
customerName);
    }

    @Override
    public void display() {
        super.display();
        System.out.println("Customer Name: " + customerName);
    }
}

class SalesOrder extends Order {
    String vendorName;

    public SalesOrder(String id, String description, String vendorName) {
        super(id, description);
        this.vendorName = vendorName;
    }

    @Override
    public void accept() {
        System.out.println("Accepting Sales Order for vendor: " +
vendorName);
    }

    @Override
    public void display() {
        super.display();
        System.out.println("Vendor Name: " + vendorName);
    }
}

public class Main {
    public static void main(String[] args) throws IOException {
        BufferedReader br = new BufferedReader(new
InputStreamReader(System.in));
        System.out.println("Select 1 for Purchase Order or 2 for Sales Order:
");
        int choice = Integer.parseInt(br.readLine());

        System.out.println("Enter ID and Description for the order: ");
        String id = br.readLine();
    }
}

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String description = br.readLine();

Order order;
if (choice == 1) {
    System.out.println("Enter Customer Name: ");
    String customerName = br.readLine();
    order = new PurchaseOrder(id, description, customerName);
} else {
    System.out.println("Enter Vendor Name: ");
    String vendorName = br.readLine();
    order = new SalesOrder(id, description, vendorName);
}

order.accept();
order.display();
}
```