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Subject: Object Oriented Programming Lab

Practical-6

- **Problem Definition:**

The student and customer are the persons. Person is having name, address. Student is having college_name and customer is having customerID.

Person, student, customer can eat, walk, talk.

Student is studying specific subject and customer is purchasing specific product.

Implement this structure.

- **Program:**

```
class Person{
    String name;
    String address;
    void eat(){
        System.out.println("Eating....");
    }
    void walk(){
        System.out.println("Walking....");
    }
    void talk(){
        System.out.println("Talking");
    }
}
class Student extends Person{
    String college_name;
    public Student(String nm, String ad, String clgNm){
        this.name = nm;
        this.address = ad;
        this.college_name = clgNm;
    }
}
```

```

    void study(String sub){
        System.out.println("Student is studying "+sub);
    }
}
class Customer extends Person{
    int customerID;
    public Customer(String nm, String ad, int custID){
        this.name = nm;
        this.address = ad;
        this.customerID = custID;
    }
    void purchase(String product){
        System.out.println("Customer is purchasing "+product);
    }
}

public class Practical6 {
    public static void main(String [] args) {
        Person P1 = new Person();
        P1.eat();
        P1.walk();
        P1.talk();

        Student Stud = new Student("Rajesh Sharma", "Mumbai - 400001", "VJIT");
        Stud.study("Physics");
        Stud.eat();

        Customer Cust = new Customer("Madhavrao Chavan", "Pune - 400220", 200020);
        Cust.purchase("Sugar");
        Cust.eat();

    }
}

```

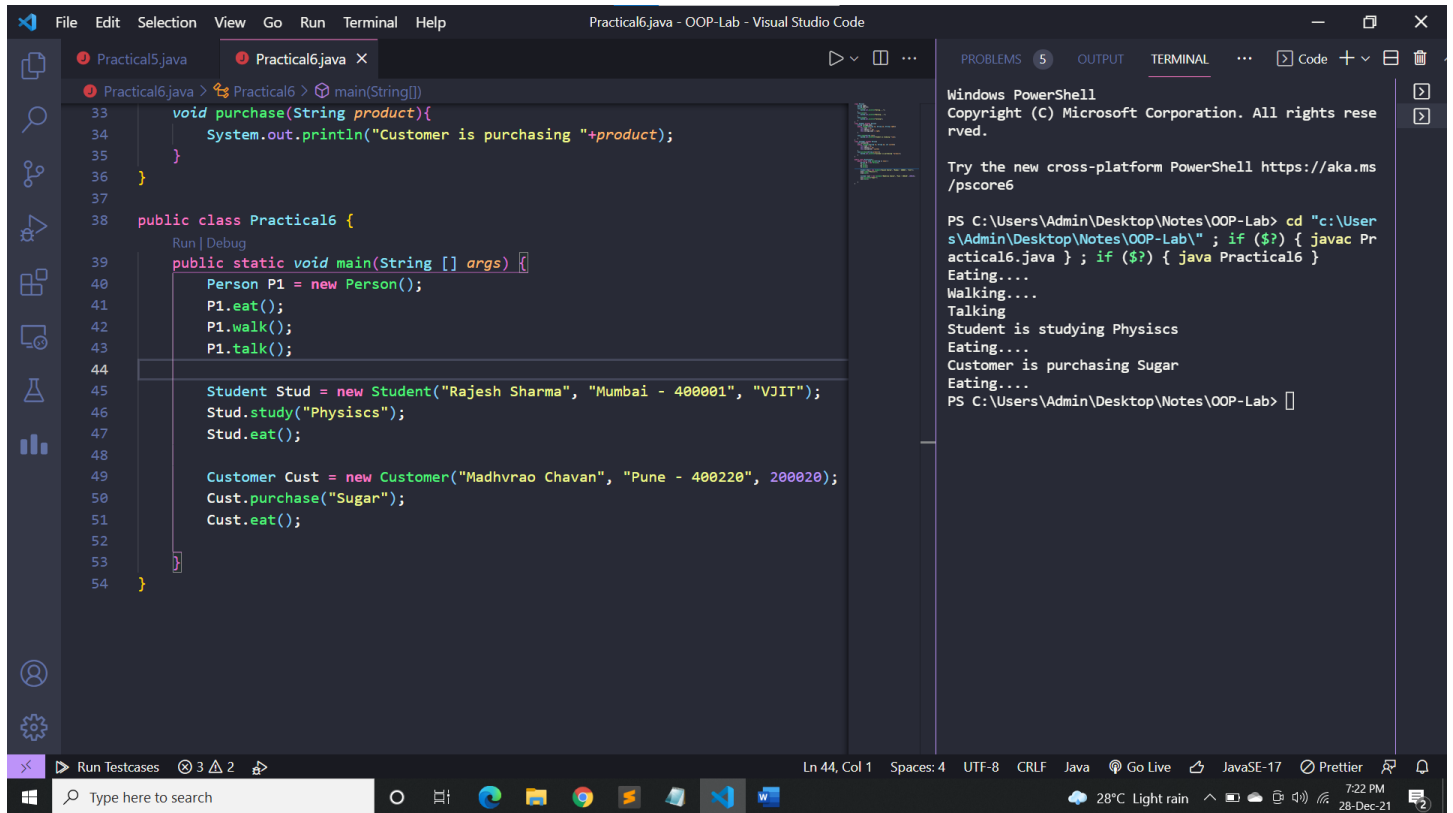
- **Output:**

```

Eating....
Walking....
Talking
Student is studying Physics
Eating....
Customer is purchasing Sugar
Eating....

```

- **Screenshot:**



The screenshot displays the Visual Studio Code editor with a Java file named `Practical6.java` open. The code defines a `Person` class with methods `eat()`, `walk()`, and `talk()`. It also defines a `Student` class that inherits from `Person` and adds a `study()` method, and a `Customer` class that inherits from `Person` and adds a `purchase()` method. The `main` method creates instances of these classes and calls their methods.

```
33 void purchase(String product){
34     System.out.println("Customer is purchasing "+product);
35 }
36 }
37
38 public class Practical6 {
39     Run | Debug
40     public static void main(String [] args) {
41         Person P1 = new Person();
42         P1.eat();
43         P1.walk();
44         P1.talk();
45
46         Student Stud = new Student("Rajesh Sharma", "Mumbai - 400001", "VJIT");
47         Stud.study("Physics");
48         Stud.eat();
49
50         Customer Cust = new Customer("Madhvrao Chavan", "Pune - 400220", 200020);
51         Cust.purchase("Sugar");
52         Cust.eat();
53     }
54 }
```

The terminal on the right shows the output of the program:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/powershell

PS C:\Users\Admin\Desktop\Notes\OOP-Lab> cd "c:\Users\Admin\Desktop\Notes\OOP-Lab\" ; if ($?) { javac Practical6.java } ; if ($?) { java Practical6 }
Eating....
Walking....
Talking
Student is studying Physics
Eating....
Customer is purchasing Sugar
Eating....
PS C:\Users\Admin\Desktop\Notes\OOP-Lab>
```

- **Result:**

By studying implementation of concept Inheritance in Java, I have successfully completed Practical-6.