CSE341

05/02/2026

2 Questions will be easy = 10 Marks
1/2 Questions will be complex but DO able
No theory

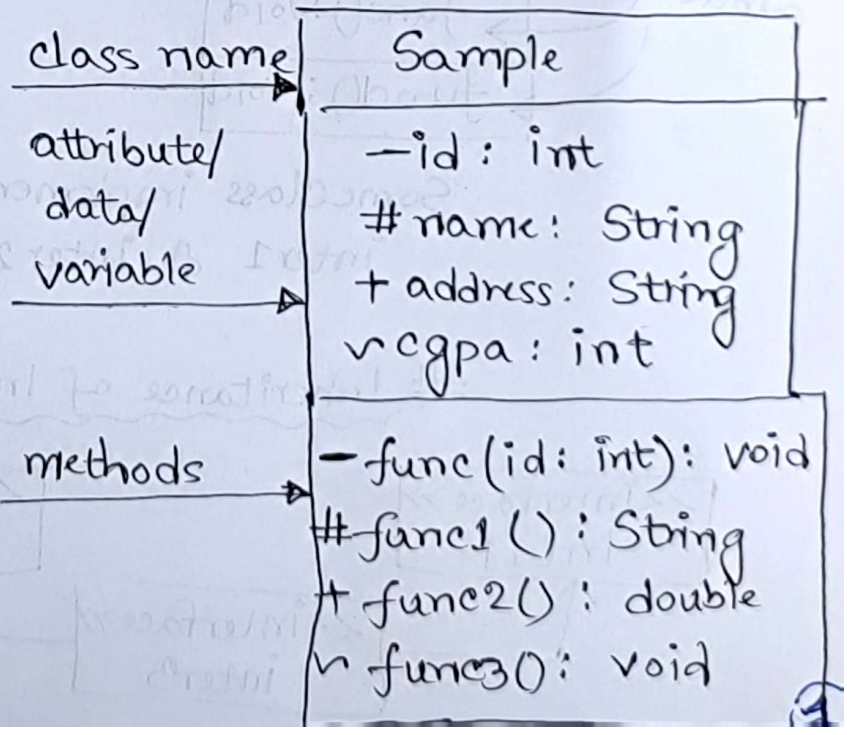
UML Diagram
↓
Unified Modeling Language

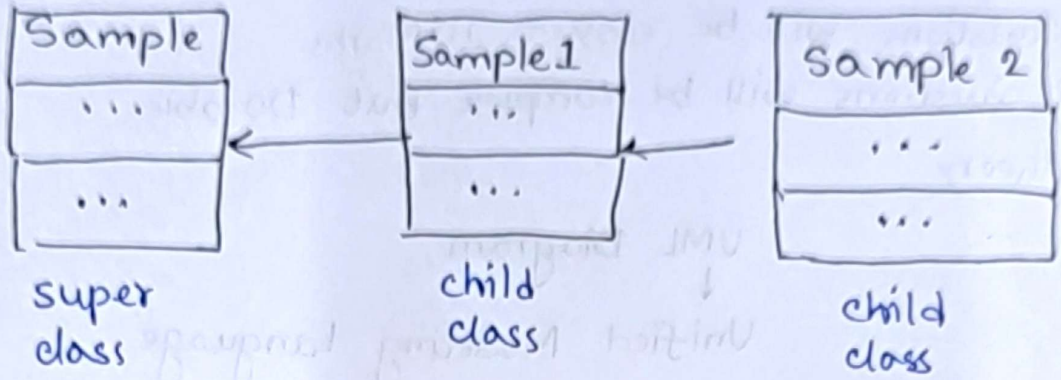
```
class Sample{
    private int id;
    protected String name;
    public String address;
           int cgpa;

    private void func(int id){ }
    protected String func1 (){ }
    public double func2 (){ }
    void func3(){ }
```

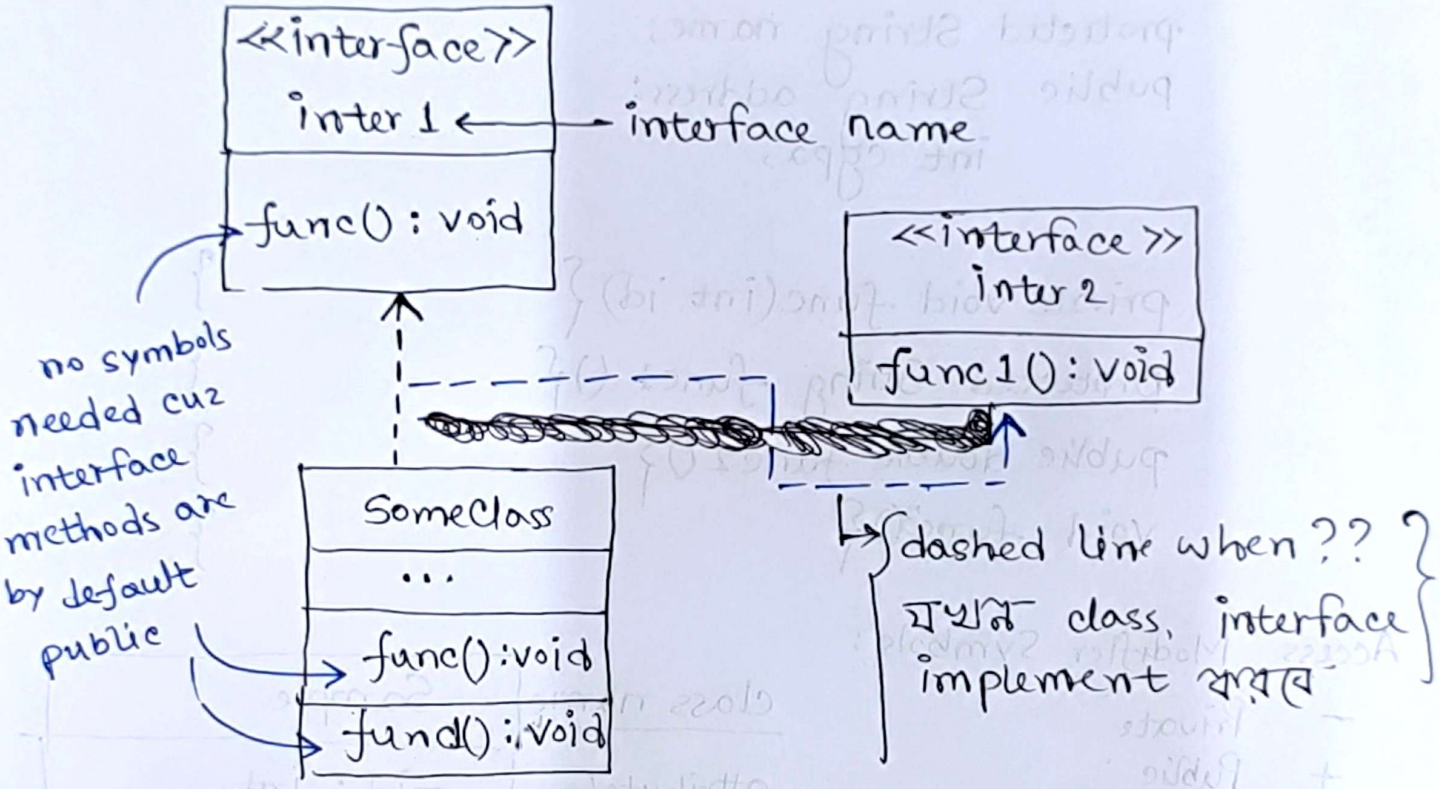
Access Modifier Symbols:

- `-` Private
- `+` Public
- `#` Protected
- `~` Default <Tilde>



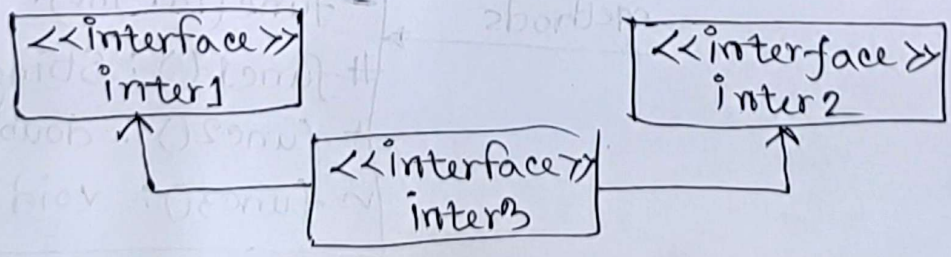


Interface in UML



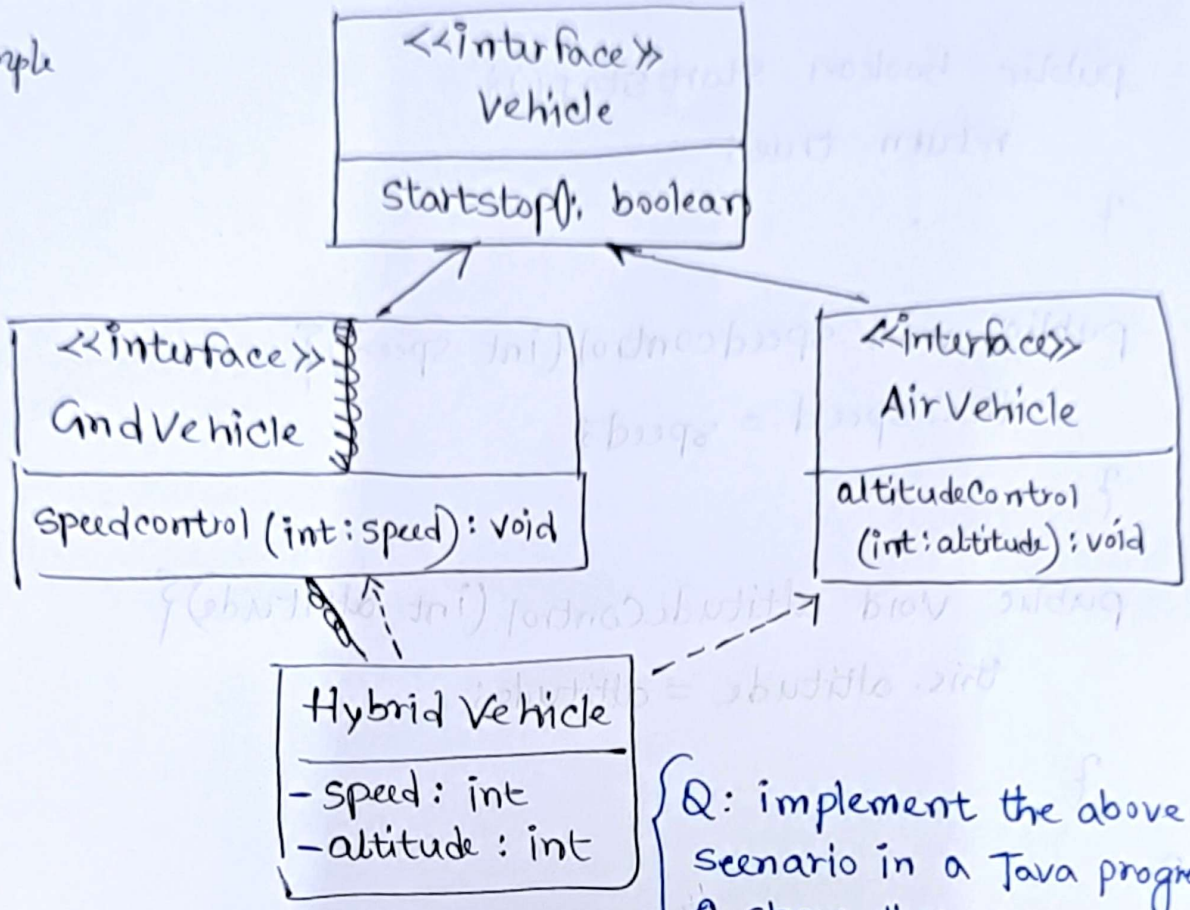
SomeClass implements inter1 & inter2

Inheritance of Interfaces



<<abstract class>>

Example



Q: implement the above scenario in a Java program & show that a HybridVehicle work on both land & air

```
interface Vehicle {
    boolean Startstop();
}

interface GndVehicle extends Vehicle {
    void speedcontrol(int speed);
}

interface AirVehicle extends Vehicle {
    void altitudeControl(int altitude);
}

class HybridVehicle implements GndVehicle, AirVehicle {
private int speed, altitude;
    HybridVehicle(int s, int a) {
        speed = s; altitude = a;
    }
```

```
    public boolean startstop(){
        return true;
    }

    public void speedcontrol(int speed){
        this.speed = speed;
    }

    public void altitudeControl(int altitude){
        this.altitude = altitude;
    }
}

public class Main{
    public static void main(String[] args){
        HybridVehicle hv = new HybridVehicle(10, 20);
        System.out.println(hv.startstop());
        System.ou
        hv.speedcontrol(40);
        hv.altitudeControl(25);
    }
}
```