6월 1일 복습&퀴즈

이태양


```java
class A {
    int a = 10;
    void b() {
        System.out.println("A");
    }
}
class AA extends A {
    int a = 20;
    void b () {
        System.out.println("AA");
    }
    void c () {
        System.out.println("c");
    }
}

public class ExtendTest {
    public static void main(String[] args) {

        A a = new A();
        a.b();
        System.out.println("A a : "+a.a);

        AA aa = new AA();
        aa.b();
        aa.c();
        System.out.println("AA aa: "+aa.a);

        A a1 = new AA();
        a1.b();
        System.out.println("A a1 : "+a1.a);
    }
```

```
A
A a : 10
AA
c
AA aa: 20
AA
A a1 : 10
```

객체는 AA지만 데이터 값은 A에서 가져온다

Car에서 상속받아 변수들을 사용할 수 있다

```
class Car{
    private float rpm;
    private float fuel;
    private float pressure;
    private String color;

    public float getRpm() { return rpm; }

    public void setRpm(float rpm) { this.rpm = rpm; }

    public float getFuel() { return fuel; }

    public void setFuel(float fuel) { this.fuel = fuel; }

    public float getPressure() { return pressure; }

    public void setPressure(float pressure) { this.pressure = pressure; }

    public String getColor() { return color; }

    public void setColor(String color) { this.color = color; }
}
class SportsCar extends Car{
    private  Boolean booster;

    public Boolean getBooster() { return booster; }

    public void setBooster(Boolean booster) { this.booster = booster; }

    @Override
    public String toString() {
        return "SportsCar{" +
                "rpm =" + super.getRpm() +
                "fuel =" + super.getFuel() +
                "pressure =" + super.getPressure() +
                "color =" + super.getColor() +
                "booster=" + booster +
                '}';
    }
}



public class CarTest {
    public static void main(String[] args) {
        SportsCar sc = new SportsCar();
        sc.setRpm(100);
        sc.setFuel(2.5f);
        sc.setPressure(1.0f);
        sc.setColor("Dark Gray");
        sc.setBooster(false);

        System.out.println(sc);

    }
}
```


```java
class Vehicle {
    private float rpm;
    private float fuel;
    private float pressure;
    private String color;

    public Vehicle(float rpm, float fuel, float pressure, String color) {
        this.rpm = rpm;
        this.fuel = fuel;
        this.pressure = pressure;
        this.color = color;
    }

    @Override
    public String toString() {
        return "Vehicle{" +
                "rpm=" + rpm +
                ", fuel=" + fuel +
                ", pressure=" + pressure +
                ", color='" + color + '\'' +
                '}';
    }
}
```

```java
class Airplane extends Vehicle {
    private float aileron;
    private float pitch;
    private float rudder;

    public Airplane(float rpm, float fuel, float pressure, String color,
                    float aileron, float pitch, float rudder) {
        super(rpm, fuel, pressure, color);

        this.aileron = aileron;
        this.pitch = pitch;
        this.rudder = rudder;
    }


    @Override
    public String toString() {
        return "Airplane{" + super.toString()+
                "aileron=" + aileron +
                ", pitch=" + pitch +
                ", rudder=" + rudder +
                '}';
    }
}

public class InheritanceWithSuperTest {
    public static void main(String[] args) {
        Vehicle v = new Vehicle( rpm: 200, fuel: 1.2f, pressure: 1.0f, color: "red");
        System.out.println(v);
        Airplane a = new Airplane( rpm: 1000, fuel: 112.5f, pressure: 12.3f, color: "White", aileron: 77.3f, pitch: 0.02f, rudder: 33.9f);
        System.out.println(a);
    }
```


```java
class GunHee {
    private String name;
    private int age;
    private String rank;

    public GunHee(String name, int age, String rank) {
        this.name = name;
        this.age = age;
        this.rank = rank;
    }
    @Override
    public String toString() {
        return "GunHee{" +
                "name='" + name + '\'' +
                ", age=" + age +
                ", rank='" + rank + '\'' +
                '}';
    }
}
class JaeYong extends GunHee {

    public JaeYong(String name, int age, String rank) {
        super(name, age, rank);
    }
}
public class Samsung {
    public static void main(String[] args) {
        GunHee g = new GunHee( name: "이건희", age: 88, rank: "회장");
        System.out.println(g);
        JaeYong j = new JaeYong( name: "이재용", age: 50, rank: "부회장");
        System.out.println(j);
```

혼자 한번 간단하게 안보고 만들어보았습니다,,


```java
interface Light {
    public void LightOn();
    public void LightOff();

}

class Lamp {
    Light lamp = new Light() {
        @Override
        public void LightOn() {
            System.out.println("불 킨다");
        }
        @Override
        public void LightOff() {
            System.out.println("불좀 꺼줄래?");
        }

    };
}
class StreetLamp {
    Light Streetlamp = new Light() {
        @Override
        public void LightOn() {
            System.out.println("가로등 불 킨다");
        }
        @Override
        public void LightOff() {
            System.out.println("가로등 불좀 꺼줄래?");
        }
    };

}
```

```java
class Led {
    Light led = new Light() {
        @Override
        public void LightOn() {
            System.out.println("LED 킨다");
        }
        @Override
        public void LightOff() {
            System.out.println("LED OFF");
        }
    };
}


public class Prob54 {
    public static void main(String[] args) {
        Lamp lamp = new Lamp();

        lamp.lamp.LightOn();
        lamp.lamp.LightOff();

        StreetLamp streetLamp = new StreetLamp();
        streetLamp.Streetlamp.LightOn();
        streetLamp.Streetlamp.LightOff();

        Led led = new Led();
        led.led.LightOn();
        led.led.LightOff();
    }
}
```

진짜 하나 잘만들면 떼돈 벌거같은,,,