

# 23.12.20[Java]

🕒 작성 일시	@2023년 12월 20일 오전 10:34
🏷 태그	

The screenshot shows an IDE with two panels of Java code. The left panel shows the original code, and the right panel shows the code after adding a no-argument constructor to the Product class. A red box highlights the new constructor in the right panel, with the text "빈 배열 생성" (Create empty array) next to it. Below the code panels, a "Build Output" window shows a build failure. The error message is: "constructor Product in class Product cannot be applied to: (int) no arguments". The console output window shows the command: "C:\Program Files\Java\jdk-17\bin\java.exe" and the message: "Process finished with exit code 0".

```
no usages
class Product
{
    no usages
    int price;
    no usages
    int bonusPoint;

    no usages
    Product(int price){
        this.price = price;
        bonusPoint = (int)(price/10.0);
    }
}

no usages
class Tv extends Product{
    no usages
    Tv() {}
    public String toString() {
        return "Tv";
    }
}

class main {
    public static void main(String[] args){
        Tv t = new Tv();
    }
}
```

```
class Product
{
    no usages
    int price;
    no usages
    int bonusPoint;

    no usages
    Product(); 빈 배열 생성
    no usages
    Product(int price){
        this.price = price;
        bonusPoint = (int)(price/10.0);
    }
}

no usages
class Tv extends Product{
    no usages
    Tv() {}
    public String toString() {
        return "Tv";
    }
}

class main {
    public static void main(String[] args){
        Tv t = new Tv();
    }
}
```

Build Output x

java\_exe: build failed At 2023-12-20 10:34:40 ms

main.java src/String 1 error

constructor Product in class Product cannot be applied to: (int) no arguments

Process finished with exit code 0

VOL/CHA

```

1 package Class.JavaExm12_20;
2
3 class MyTv {
4     private boolean isPowerOn;
5     private int isVol;
6     private int channel;
7
8     final int MAX_VOL = 100; // 상수의 값이 더이상 변하지 않는다.
9     final int MIN_VOL = 0; //
10
11     final int MAX_CHA = 100;
12     final int MIN_CHA = 0;
13
14     void : return 값 X
15     public void setVol(int vol){
16         if (vol > MAX_VOL || vol < MIN_VOL){
17             return;
18         }this.isVol = vol;
19     }
20
21     public int getVol(){
22         return isVol;
23     }
24
25     public void setCha(int cha){
26         if (cha > MAX_CHA || cha < MIN_CHA){
27             return;
28         }this.channel = cha;
29     }
30
31     public int getCha(){
32         return channel;
33     }
34 }
35
36
37 public class YouTv{
38     public static void main(String[] args) {
39         MyTv t = new MyTv();
40
41         t.setVol(100);
42         System.out.println(t.getVol());
43         t.setCha(10);
44         System.out.println(t.getCha());
45     }
46 }
47
48
49 100
50 10

```

return 값을 안주기 위해

boolean





## boolean (true/false)

```
class Calcultor{
```

2 usages

```
    boolean isOdd(int sum) {  
        return sum % 2 == 1;  
    }
```

```
}
```

 Extract Surround   

```
public class sample12_20_04 {  
    public static void main(String[] args) {
```

```
        Calcultor cal = new Calcultor();  
        System.out.println(cal.isOdd(sum: 3)); true  
        System.out.println(cal.isOdd(sum: 4)); false
```

```
    }
```

```
}
```

```

32
33 import java.util.*;
no usages
34 class Calculator{
no usages
35     int total;
배열
36     @ int avg(int[] data){
37
38         for(int i=0; i<data.length; i++){
39             total += data[i];
40         }
41         return total/ data.length; return 넣어줄것
42     }
ArrayList
43     @ int avg(ArrayList<Integer> data){
44         int total = 0;
45         for(int i=0; i<data.size(); i++){
46             total += data.get(i);
47         }
48         return total/ data.size();
49
50     }
51
52
53 }
54
55 public class sample12_20_05 {
56     public static void main(String[] args) {
57
58         int[] data1 = {1, 3, 5, 7, 9};
59         Calculator cal = new Calculator();
60         int result1 = cal.avg(data1);
61         System.out.println(result1);    5
62
63         ArrayList<Integer> data2 = new ArrayList<>(Arrays.asList(2, 4, 6, 8, 10));
64         int result2 = cal.avg(data2);
65         System.out.println(result2);    6
66     }
67 }

```

ArrayList

```

package Class.JavaExm12_20;

import java.util.ArrayList;
import java.util.Arrays;

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

        ArrayList<Integer> a = new ArrayList<>(Arrays.asList(1, 2, 3));
        //ArrayList<Integer> b = a;      //동일 취급
        ArrayList<Integer> b = new ArrayList<>(a); //b에 a를 집어 넣음

        a.add(4);
        System.out.println(a); [1, 2, 3, 4]
        System.out.println(b); [1, 2, 3]
    }
}

```

Error: NullPointerException 발생 시

```
no usages
class Calculator {
    no usages
    Integer value;

    no usages
    Calculator(){
        this.value=0;
    }

    no usages
    void add(int val) {
        this.value += val;
    }

    1 usage
    public Integer getValue() {
        return this.value;
    }
}

public class Sample {
    public static void main(String[] args) {
        Calculator cal = new Calculator();
        cal.add(3); // Integer 에 자로형 값이 입력 되지 않았을때 NullPointerException 이 발 생 한 다 .
        System.out.println(cal.getValue());
    }
}

Sample x
⋮
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Co
3
```

interface → implements

## interface

no usages

```
interface Mineral{  
    1 usage  
    int getValue();  
}
```

no usages

```
class Gold implements Mineral{  
    1 usage  
    public int getValue(){    통과 생성  
    |     return 100;  
    |  
    }  
}
```

no usages

```
class Silver implements Mineral{  
    1 usage  
    public int getValue(){  
    |     return 90;  
    |  
    }  
}
```

no usages

```
class Bronze implements Mineral{  
    1 usage  
    public int getValue(){  
    |     return 80;  
    |  
    }  
}
```

no usages

```
class MineralCalculator {  
    no usages  
    int value = 0;  
    3 usages  
    public void add(Mineral mineral) {  
    |     this.value += mineral.getValue();  
    |  
    }  
    1 usage  
    public int getValue() {  
    |     return this.value;  
    |  
    }  
}  
  
public class Sample {  
    public static void main(String[] args) {  
        MineralCalculator cal = new MineralCalculator();  
        cal.add(new Gold());  
        cal.add(new Silver());  
        cal.add(new Bronze());  
        System.out.println(cal.getValue()); // 270 줄 려  
    }  
}
```

