



It's Your Life

with





# Variable







Orange Caramel  
까탈레나





자이언트 팽  
평수, 필요로 하는 (10)

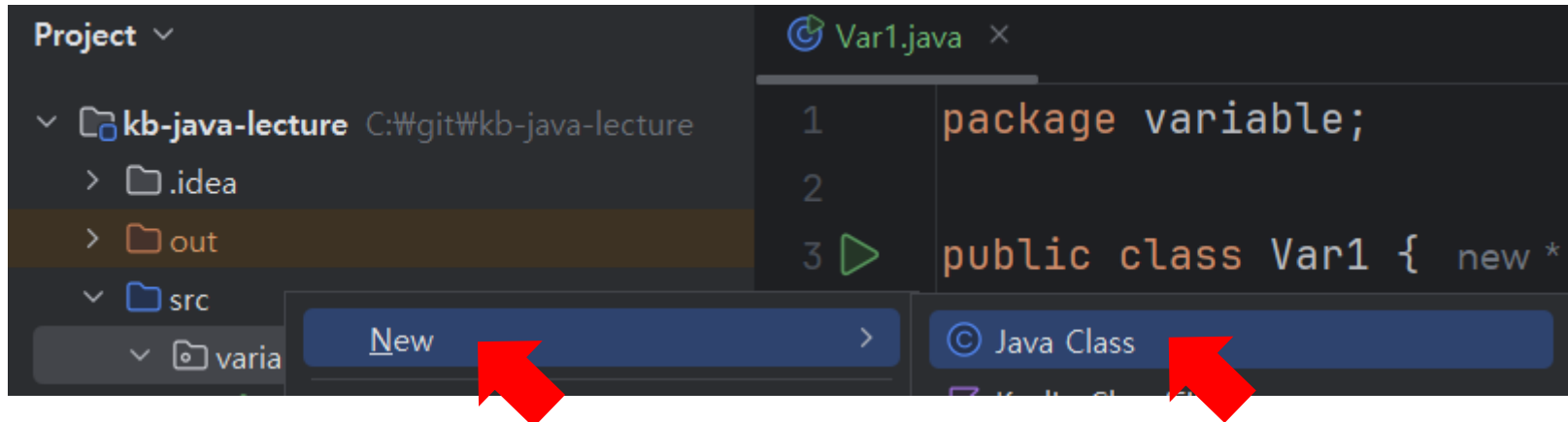
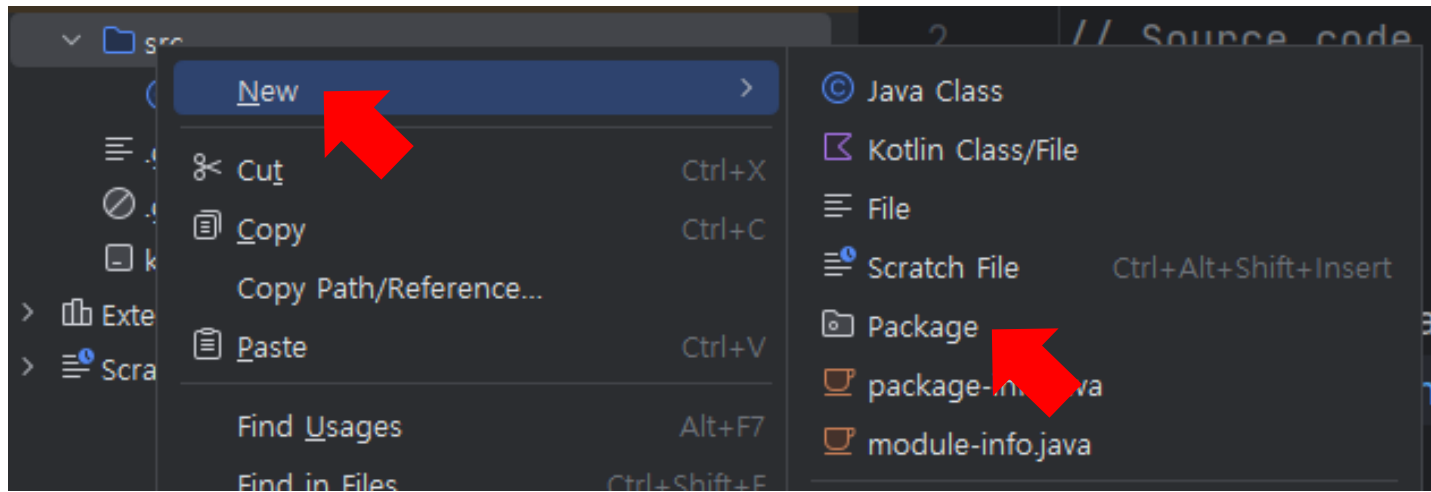
EBS

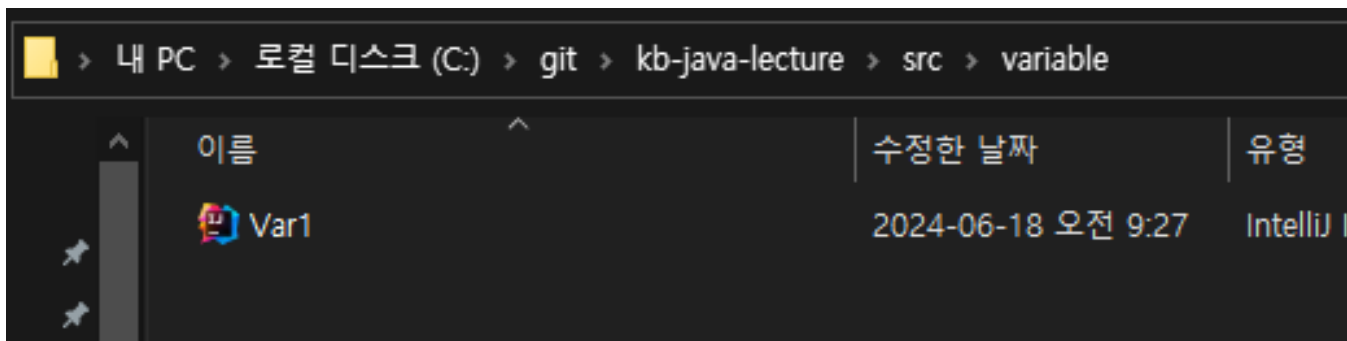
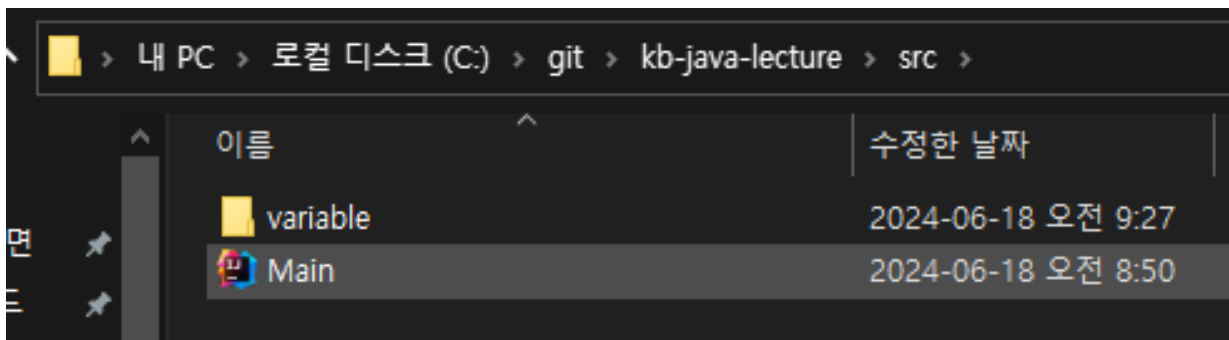
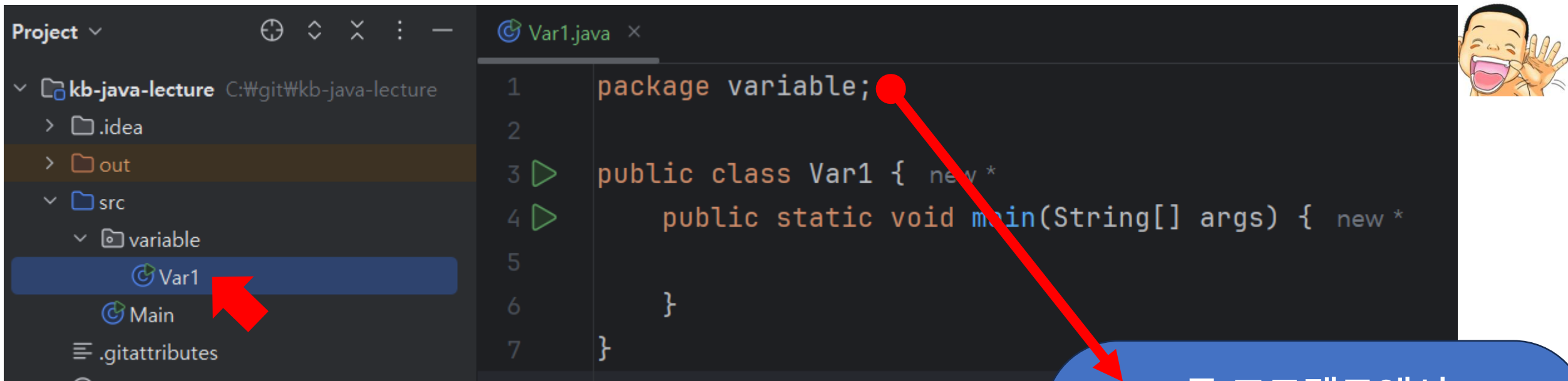
잠

관



package









# Variable

(변수)



Var1.java x

```
1 package variable;
2
3 public class Var1 { new *
4     public static void main(String[] args) { new *
5         int a;
6         System.out.println(a);
7     }
8 }
9
```

JS에서는  
let a; 는 undefined 로 지정

하지만 우리의 까다로운  
JAVA 에서는  
컴파일 에러가 발생합니다!

오전 9:32 with 1 ei 1 sec, 743 ms

[C:\git\kb-java-lecture\src\variable\Var1.java:6:28](#)

java: variable a might not have been initialized

zed :6



```
5D E9 7A FF FF FF 66 2E 0F 1F 84 00 00 00 00 00 55 48 89 E5 ].z...f.....UH..  
48 83 EC 30 F2 0F 11 45 E0 F2 0F 11 4D E8 F2 0F 11 55 D0 F2 H..0...E....M....U..  
0F 11 5D D8 F2 0F 10 45 E0 F2 0F 10 4D E8 F2 0F 10 55 D0 F2 ..]....E....M....U..  
0F 10 5D D8 F2 0F 58 C2 F2 0F 58 CB 48 8D 7D F0 E8 3F 7F 48 ..]...X...X.H.}  
00 F2 0F 10 45 F0 F2 0F 10 4D F8 48 83 C4 30 5D C3 66 66 66 ....f  
55 48 89 E5 48 83 EC 40 fff..  
11 55 D0 F2 0F 11 5D D8 ...E  
10 55 D0 F2 0F 10 5D D8 ...E  
59 EB F2 0F 5C E5 F2 0F .(...  
7D F0 F2 0F 11 45 C8 0F Y...Y  
F2 0F 10 45 F0 F2 0F 10 (...  
0F 1F 84 00 00 00 00 00 M.H..  
0F 11 45 E0 F2 0F 11 4D UH..
```



Project ▾

- kb-java-lecture C:\git\kb-java-lecture
  - .idea
  - out
  - src
    - variable
      - Var1
      - Main
    - .gitattributes
    - gitignore

Run ▾ Var1 ×

```
1 package variable;
2
3 public class Var1 { new *
4     public static void main(String[] args) { new *
5         int a = 10;
6         System.out.println(a);
7     }
8 }
```

C:\Users\student\.jdk\corretto-17.0.11\bin\java.exe "-jav  
10







# Variable Type



123

"형 바보야?"

true

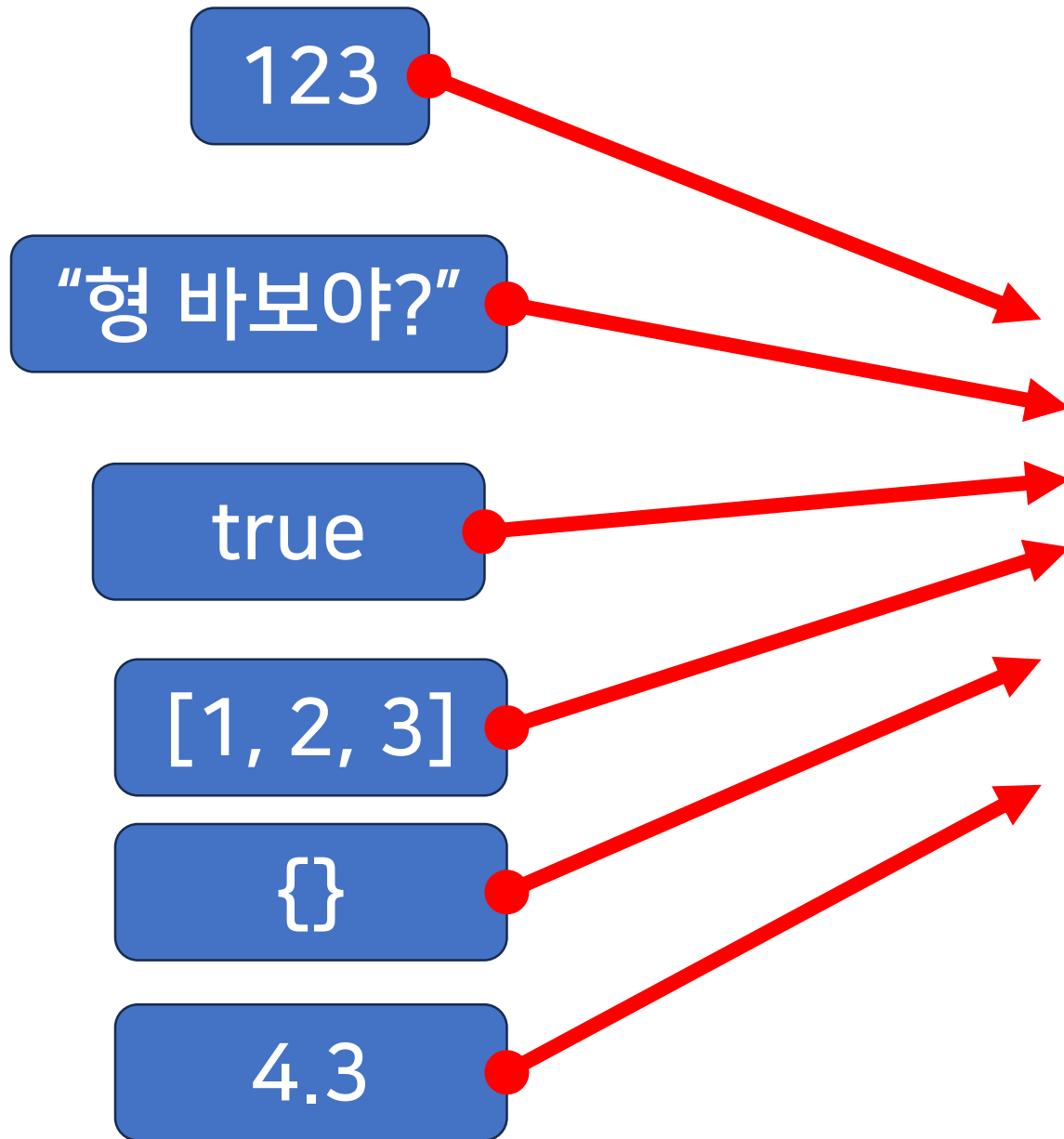
[1, 2, 3]

{ }

4.3

JS

참... 좋다!





```
3 ▶ public class Var1 { new *
4 ▶ ∨     public static void main(String[] args) { new *
5         int a = 7;
6         double b = 4.3;
7         boolean c = true;
8         char d = 'c';    // 반드시 단 따옴표 ' 사용, 한 글자만 가능!
9         ⚡ String e = "Hello, Java world!";    // 반드시 쌍 따옴표 " 사용, 여러 글자 가능!
10
11         System.out.println(a);
12         System.out.println(b);
13         System.out.println(c);
14         System.out.println(d);
15         System.out.println(e);
16
17     }
18 }
```

7

4.3

true

c

Hello, Java world!





# Number Type

```
public class Var2Number { new *
    public static void main(String[] args) { new *
        // 정수
        byte b = 127; // -128 ~ 127
        short s = 32767; // -32,768 ~ 32,767
        int i = 2147483647; // -2,147,483,648 ~ 2,147,483,647 *기본

        long l = 9223372036854775807L; // -9,223,372,036,854,775,808 ~ 9,223,372,036,854,775,807

        // 실수
        float f = 4.3f; // float 이라는 것을 표현하기 위해 f 사용, 소수점 7자리 까지
        double d = 4.3; // 소수점 15자리 까지 *기본
    }
}
```



# 형 변환!







float

double









```
public class Var4 { new *  
    public static void main(String[] args) { new *  
        double a = 2.3;  
        int b = a;  
  
        System.out.println(b);  
    }  
}
```

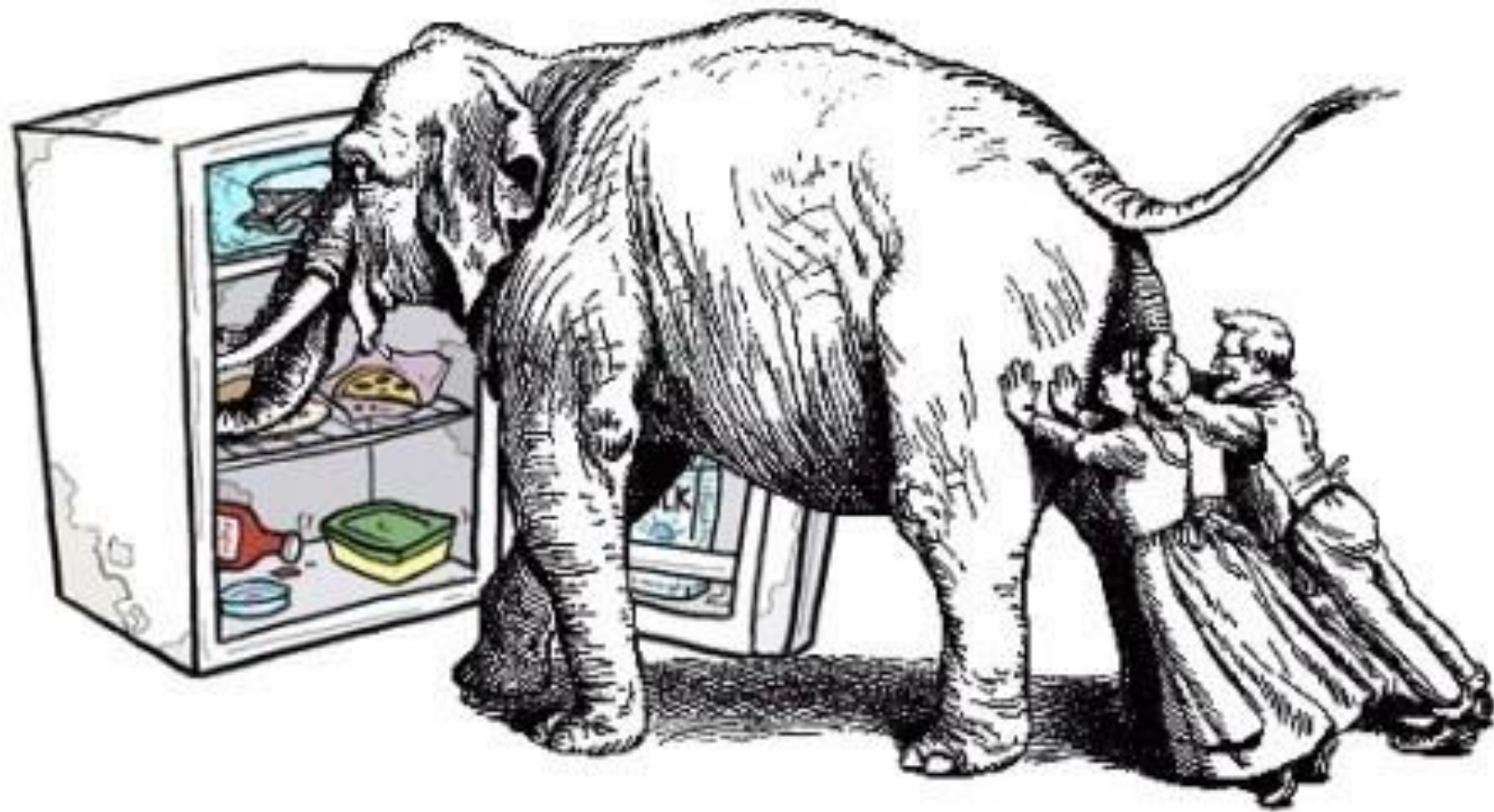
h 1 error 744 ms

[C:\git\kb-java-lecture\src\variable\Var4.java:6:17](#)

java: incompatible types: possible lossy conversion from double to int

double to int :6

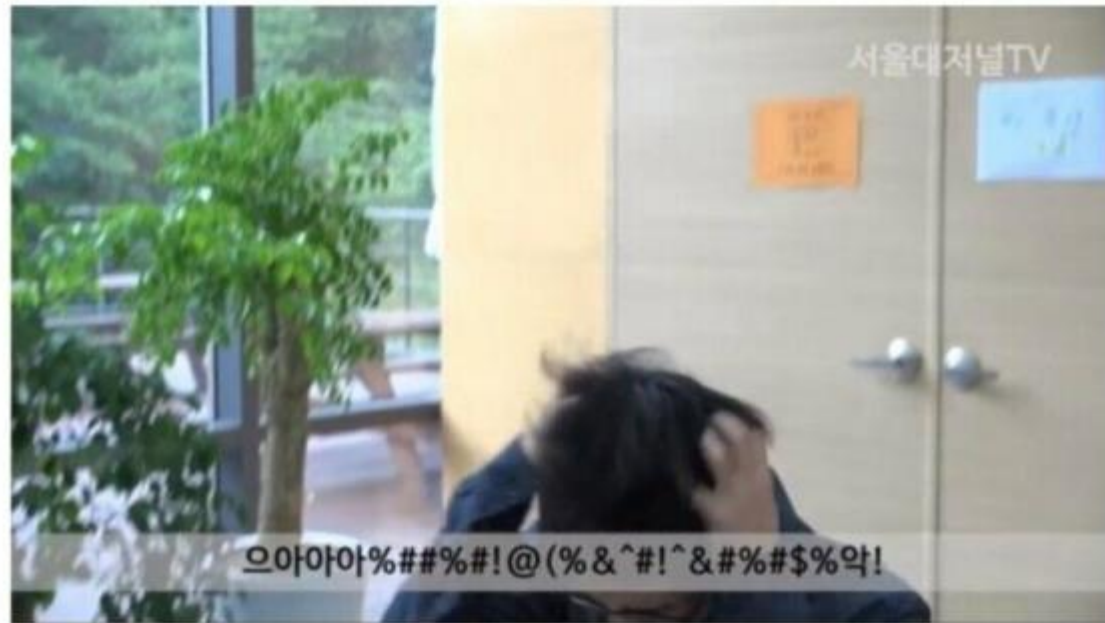






```
public class Var4 { new *  
    public static void main(String[] args) { new *  
        double a = 2.3;  
        int b = (int) a;  
  
        System.out.println(b);  
    }  
}
```

2





```
public class Var4 { new *  
    public static void main(String[] args) { new *  
        double a = 2.3;  
        int b = (int) a;  
  
        System.out.println(b);  
    }  
}
```

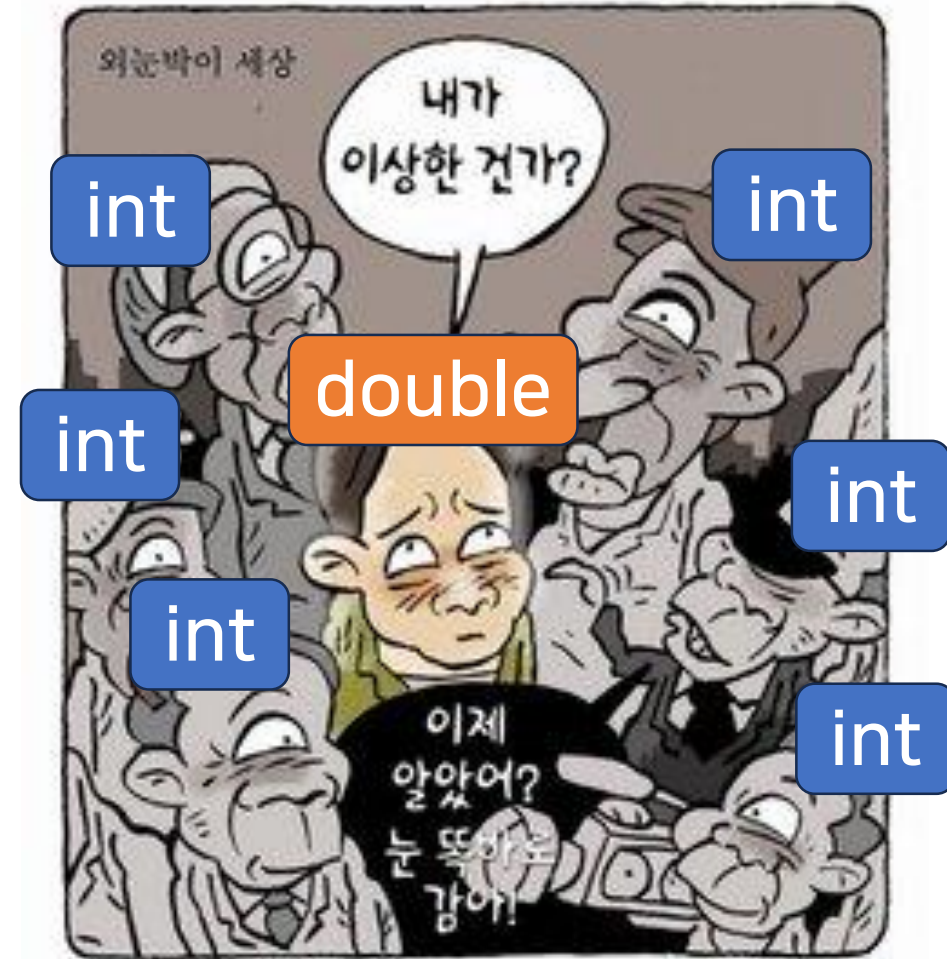


2



```
int c = 3;  
int d = 2;  
double div = c / d;  
System.out.println(div); // 결과 값은!?
```

1.0







```
int c = 3;  
int d = 2;  
double div = (double) c / d;  
System.out.println(div); // 결과 값은!?
```

1.5



천송이 ✓  
@star1000song

피곤한 오후엔 역시 달달한 모카라떼가 짱. 문익점 선생님이 왜 모카씨를 숨겨 들어왔는지 알 것 같다. 문익점 선생님 땡큐~♡





# Operator

# (연산자)



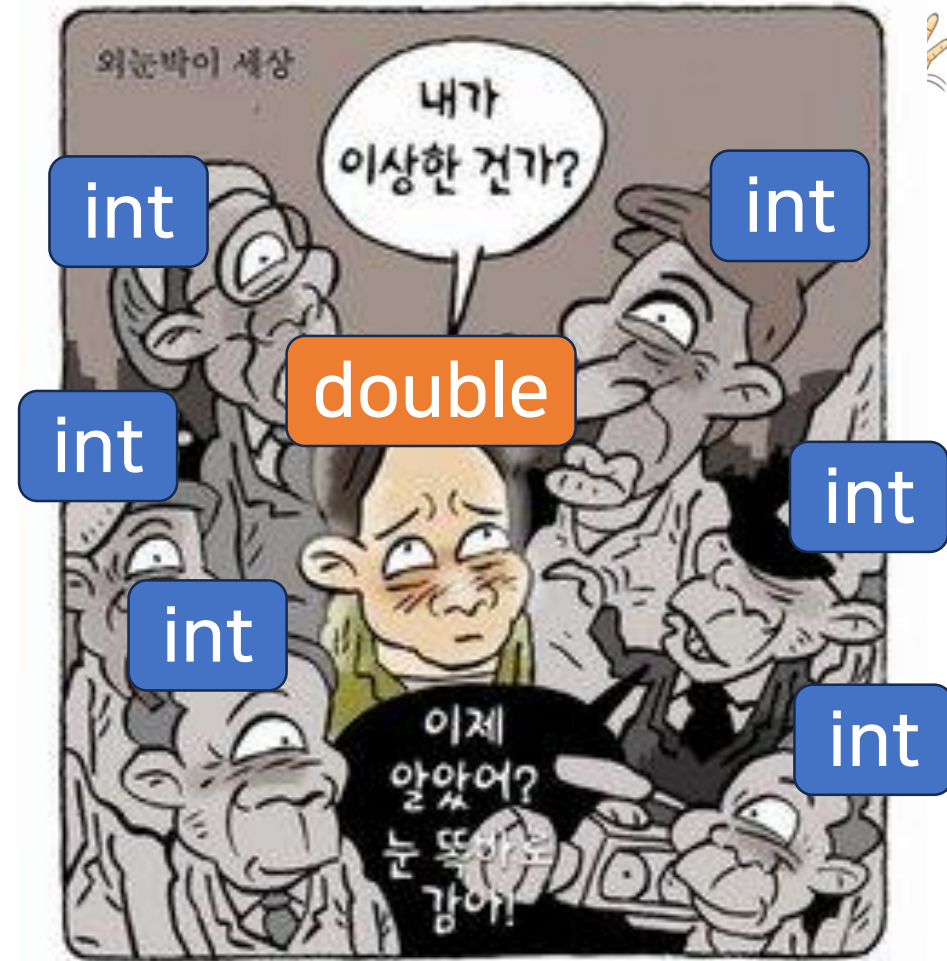
// 산술 연산의 특이점

```
int a = 3;
```

```
int b = 2;
```

```
System.out.println(a / b); // 결과는?
```

1



// 문자 연산의 특이점

```
String str = "a + b = ";
```

```
int c = 10;
```

```
System.out.println(str + c); // 결과는?
```

a + b = 10





// 문자 연산의 특이점 2

```
int d = 10;
```

```
char e = 'e';
```

```
System.out.println(d + e); // 결과는?
```



A	97	0x61	a
B	98	0x62	b
C	99	0x63	c
D	100	0x64	d
E	101	0x65	e





# 연산자 우선순위



$\wedge 0 \wedge$



# 증감 연산자

// 증감 연산의 특이점

```
int f = 1;
```

```
int g = 0;
```

```
g = f++;
```

```
System.out.println("f = " + f + ", g = " + g); // 결과는?
```



f = 2, g = 1







# 비교 연산자



```
// 문자열 비교
```

```
String str1 = "abc";
```

```
String str2 = "def";
```

```
boolean result1 = "abc".equals("def");
```

```
boolean result2 = str1.equals("def");
```

```
boolean result3 = str1.equals(str2);
```

```
System.out.println(result1);
```

```
System.out.println(result2);
```

```
System.out.println(result3);
```

false

false

false



// 문자열 비교

```
String str1 = "abc";
```

```
String str2 = "def";
```

```
boolean result1 = !"abc".equals("def");
```

```
boolean result2 = !str1.equals("def");
```

```
boolean result3 = !str1.equals(str2);
```

```
System.out.println(result1);
```

```
System.out.println(result2);
```

```
System.out.println(result3);
```

true

true

true

// 문자 비교의 특이점

```
System.out.println("abc" == "abc"); // 결과는!?
```

```
System.out.println("abc" == "def"); // 결과는!?
```

```
System.out.println("abc" == new String(original: "abc")); // 결과는!?
```

true

false

false



JAVA

# 객체, 클래스, 인스턴스

**Class** vs **Object**  
vs **Instance**







# 논리 연산자



```
// 논리연산 실전
```

```
int score = 90;
```

```
boolean result = score >= 80 && score <= 100;
```

```
System.out.println(result);
```

```
true
```