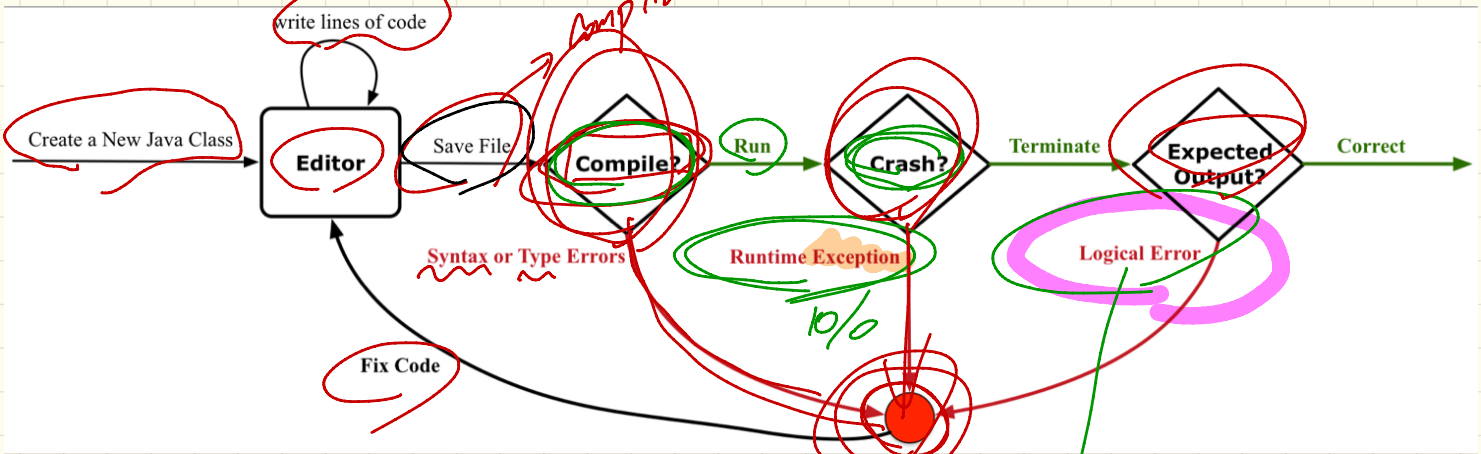
Wednesday January 9

Lecture 2

- Office Hours 3pm ~ 5pm
  W / F
- Lab 0 Part I
  W 6pm
  F 5:30pm
- More exercises : codingbat.com

Development Process

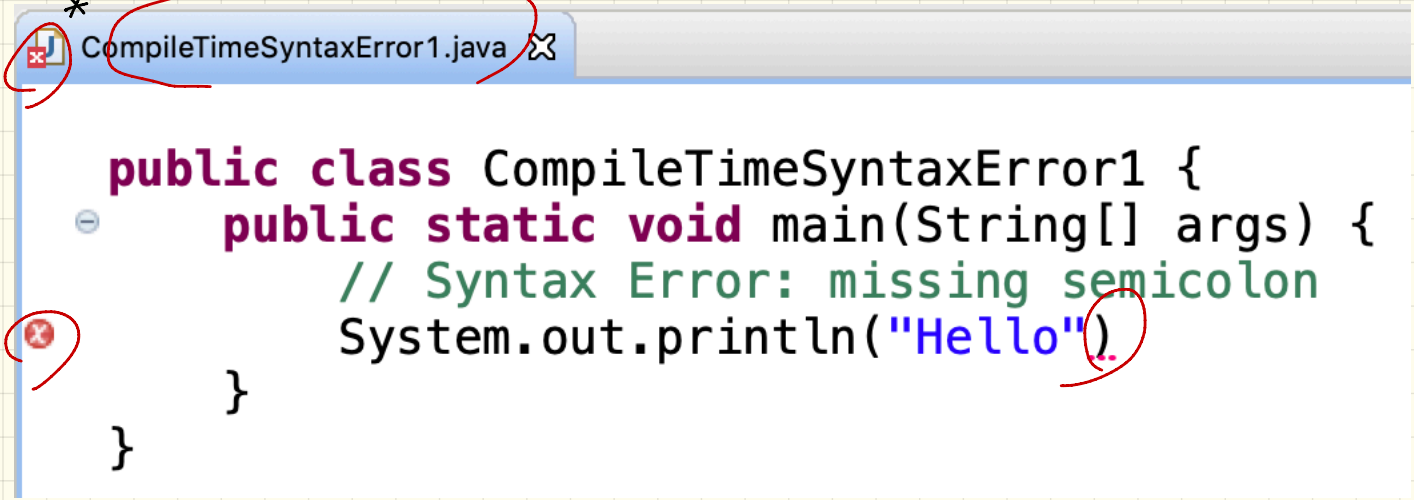


↓ ① Test

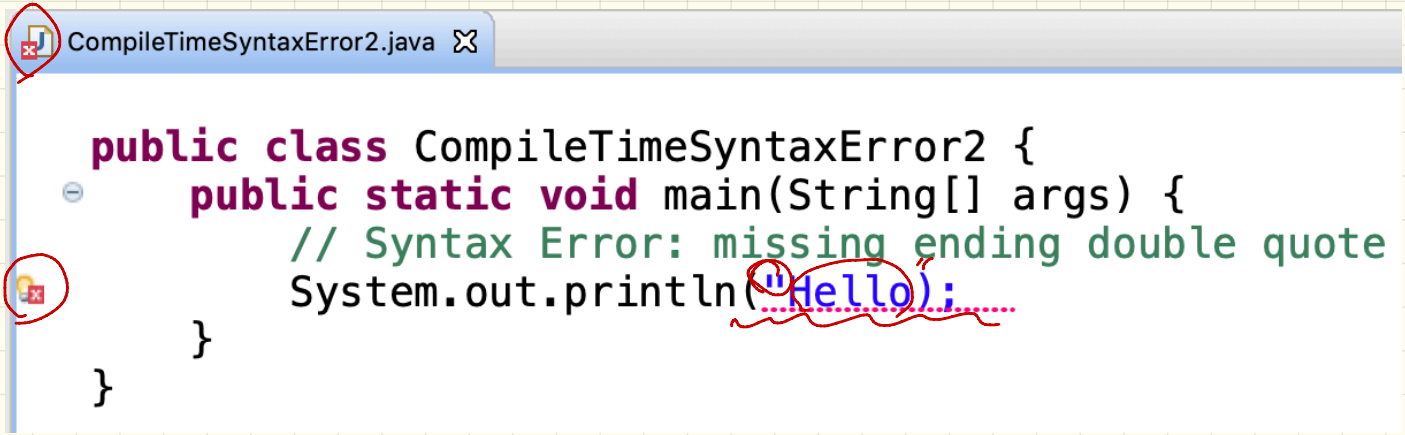
② debugger.

Error at the Compile Time : Syntax Error (I)

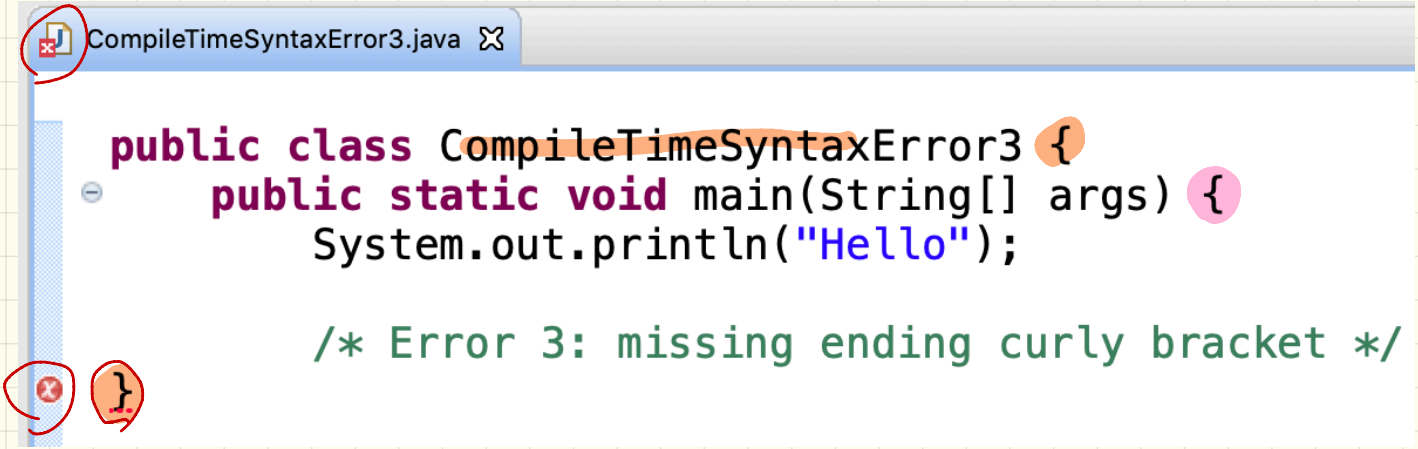
* ← unsaved



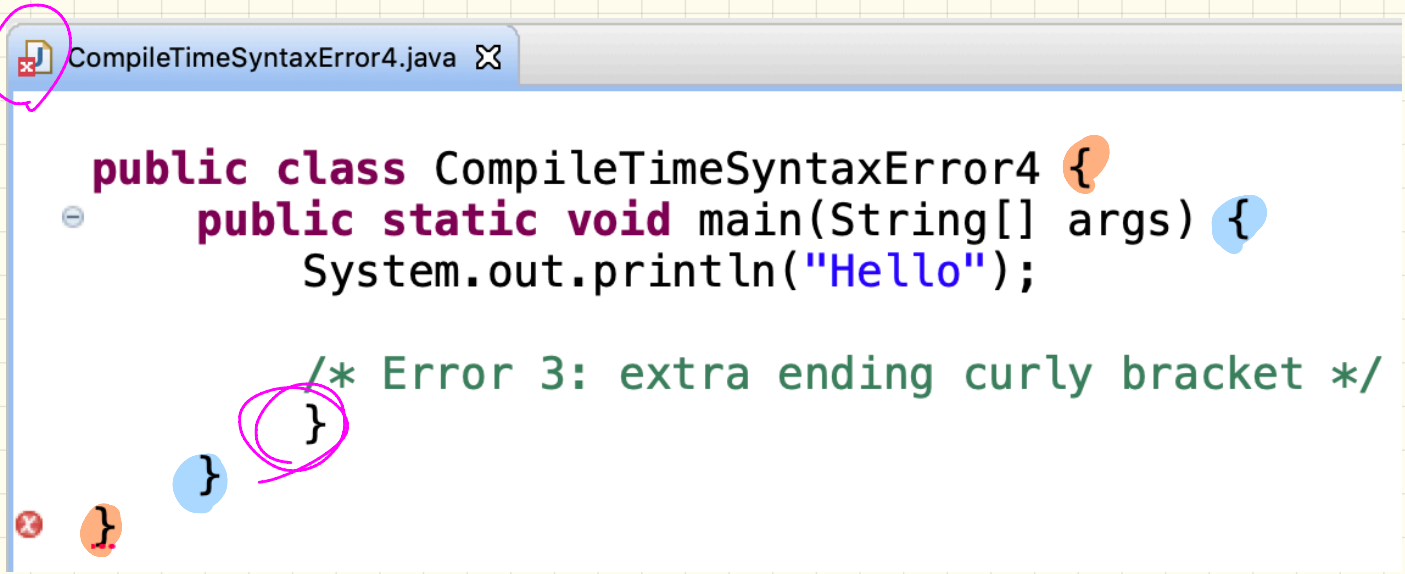
Error at the Compile Time : Syntax Error (2)



Error at the Compile Time : Syntax Error (3)



Error at the Compile Time : Syntax Error (4)



Error at the Compile Time : Type Error (I)

CompileTimeTypeError1.java

```
public class CompileTimeTypeError1 {
    public static void main(String[] args) {
        /* Type error: Apply operator to the wrong values */
        System.out.println("York" * 23);
    }
}
```

type error

Error at the Compile Time : Type Error (2)

CompileTimeTypeError2.java

```
public class CompileTimeTypeError2 {
    public static void main(String[] args) {
        /* Type error: Refer to undeclared variable */
        int i = 23;
        System.out.println(j / 3);
    }
}
```

undeclared variable

Error at the Run Time : Exception

RunTimeException.java

```java
public class RunTimeException {
    public static void main(String[] args) {
        /* Runtime exception: code compiles but crashes at runtime */
        System.out.println(10 / 0);
    }
}
```

Error at the Run Time : Logical Error

RunTimeLogicalError.java

```
import java.util.Scanner;

public class RunTimeLogicalError {
    public static void main(String[] args) {
        /* Runtime logical error: code compiles, does not crash at runtime,
         * but does not behave as expected.
         */
        Scanner input = new Scanner(System.in);

        System.out.println("Enter the integer radius of a circle:");
        int radius = input.nextInt();

        System.out.println("Area of circle is: " + (2 * 3.14 * radius));
        input.close();
    }
}
```

Document Your Code

- **Single-Lined** Comments:

```
// This is Comment 1.
... // Some code
// This is Comment 2.
```

- **Multiple-Lined** Comments:

```
/* This is Line 1 of Comment 1.
 */
... // Some code
/* This is Line 1 of Comment 2.
 * This is Line 2 of Comment 2.
 * This is Line 3 of Comment 2.
 */
```

character

X

'' ✓

'a'

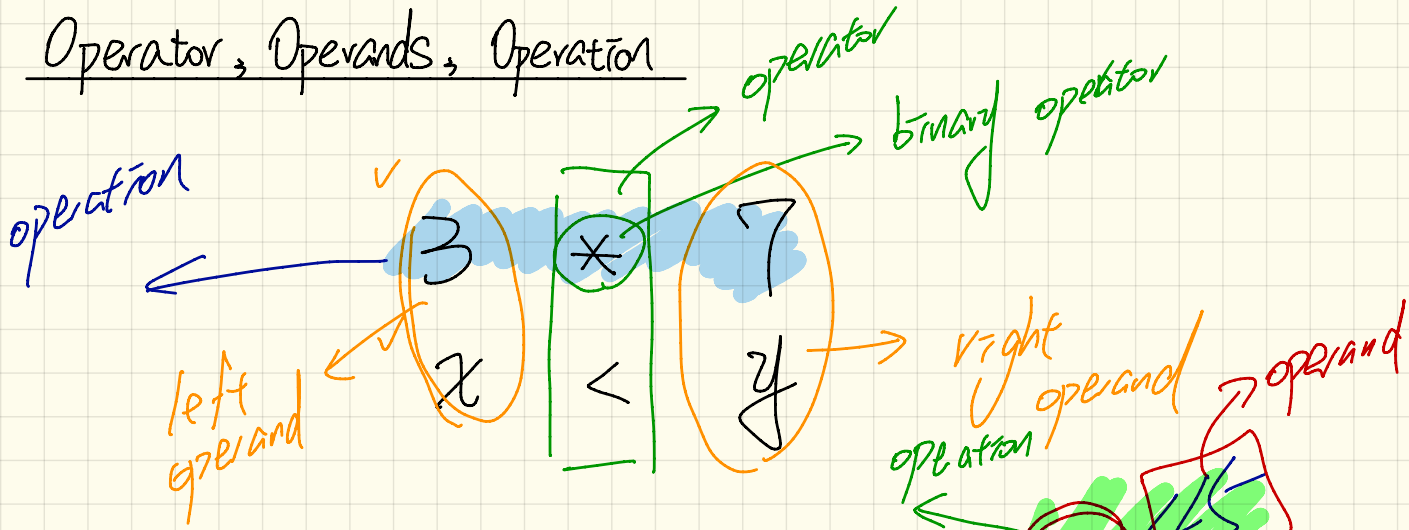
String : seq. of char.

"" ✓ empty string

"a"

"abcd"

Operator, Operands, Operation



✓ – An operation consists of an operator and one or more operands.

✓ – An operator has one or more applicable operands.