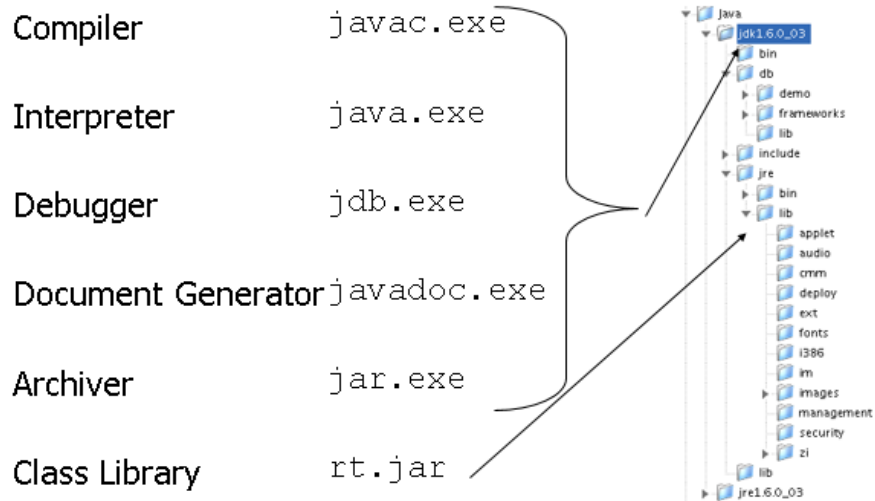


Object-Oriented Language and Theory

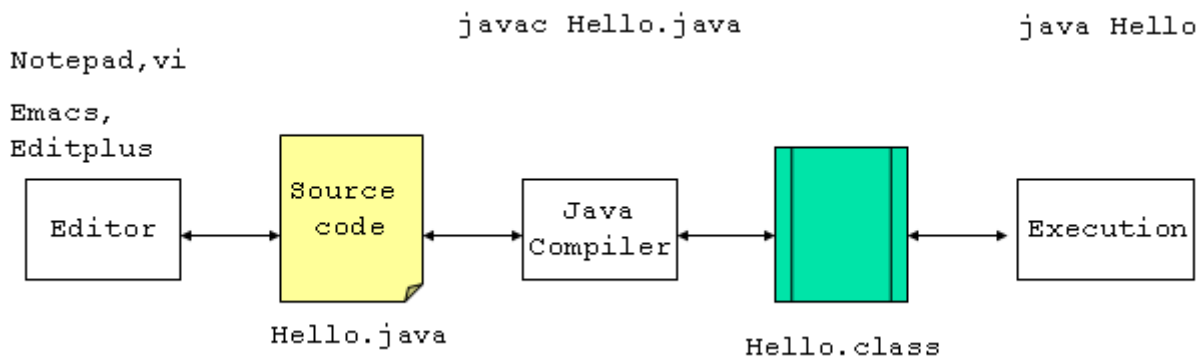
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Lab 1: Environment Preparation and First Applications

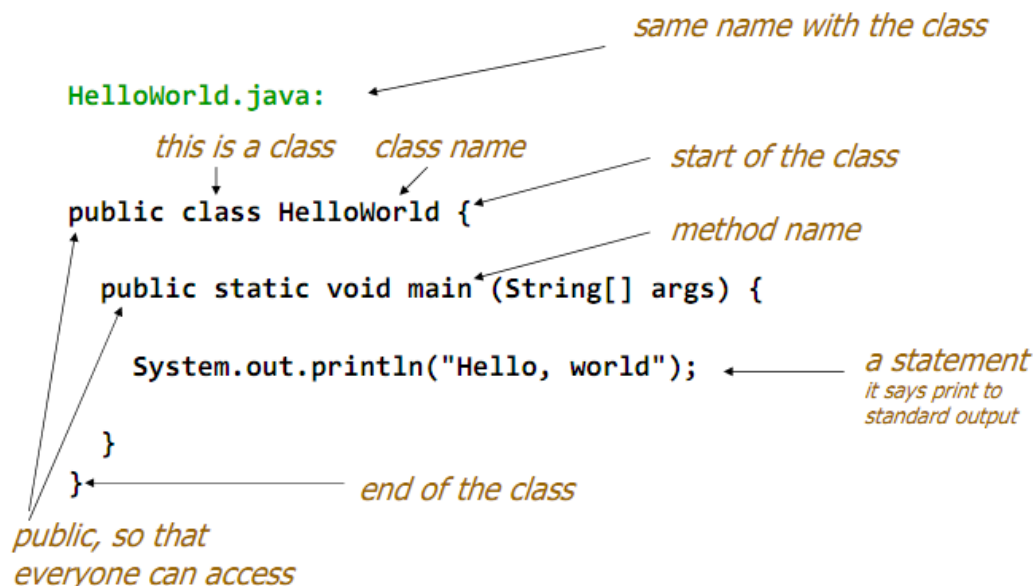
* Development Environment



* Compile a Java application by command line



* The first Java application



- Compile HelloWorld.java
javac HelloWorld.java
- Run
java HelloWorld
- Result

```
%> javac HelloWorld.java
%> java HelloWorld
Hello, world
```

Video demo:

<https://www.youtube.com/watch?v=G1ubVOI9IBw>

https://www.youtube.com/watch?v=2Xa3Y4xz8_s

1. Write, compile the first Java application:

```
1 //Example 1: HelloWorld.java
2 //Text-printing program
3 public class HelloWorld {
4
5     public static void main(String args[]){
6         System.out.println("Xin chao \n cac ban!");
7         System.out.println("Hello \t world!");
8
9     } // end of method main
10 }
```

2. Write, compile the first dialog Java application

```
1 // Example 2: FirstDialog.java
2 import javax.swing.JOptionPane;
3 public class FirstDialog{
4     public static void main(String[] args){
5         JOptionPane.showMessageDialog(null,"Hello world! How are you?");
6         System.exit(0);
7     }
8 }
```

3. Write, compile the first input dialog Java

```

1 // Example 3: HelloNameDialog.java
2 import javax.swing.JOptionPane;
3 public class HelloNameDialog{
4     public static void main(String[] args){
5         String result;
6         result = JOptionPane.showInputDialog("Please enter your name:");
7         JOptionPane.showMessageDialog(null, "Hi " + result + "!");
8         System.exit(0);
9     }
10 }

```

4. Write, compile and run the following example:

```

1 // Example 5: ShowTwoNumbers.java
2 import javax.swing.JOptionPane;
3 public class ShowTwoNumbers {
4     public static void main(String[] args){
5         String strNum1, strNum2;
6         String strNotification = "You've just entered: ";
7
8         strNum1 = JOptionPane.showInputDialog(null,
9             "Please input the first number: ", "Input the first number",
10            JOptionPane.INFORMATION_MESSAGE);
11         strNotification += strNum1 + " and ";
12
13         strNum2 = JOptionPane.showInputDialog(null,
14             "Please input the second number: ", "Input the second number",
15            JOptionPane.INFORMATION_MESSAGE);
16         strNotification += strNum2;
17
18         JOptionPane.showMessageDialog(null, strNotification,
19             "Show two numbers", JOptionPane.INFORMATION_MESSAGE);
20         System.exit(0);
21     }
22 }

```

5. Write a program to calculate sum, difference, product, and quotient of 2 double numbers which are entered by users.

Notes:

- To convert from String to double, you can use
`double num1 = Double.parseDouble(strNum1)`
- Check the divisor of the division.

6. Write a program to solve:

- The first degree equation (linear equation) with one variable
- The first degree equation (linear equation) with two variables
- The second degree equation with one variable