

# Juniorprogrammierer.de

Java 1: Comments & Variables

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# Agenda

- Comments I + II
- Variables I + II + III
- Homework

# Comments I

- What are comments for
  - Explain code
  - Debug
  - Improve readability
- This is how you comment
  - 1 Line => `//This is one line of comment`
  - Multible Lines => `/*This is a multible  
line comment */`

# Comments II

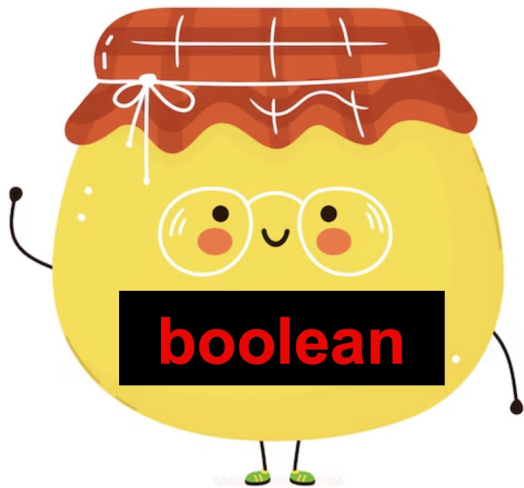
- What do you think about this code example? Do the comments help here?

```
/*This class is the main class and is supposed to be compiled into a Bytecode class-data to  
be executed*/  
//the class name "Main" needs to be equivalent to the file name "Main.java"  
public class Main {  
    //these 4 words i do not understand yet  
    public static void main(String[] args) {  
        //System is a class and "out" as well as "println" are methods  
        //Hello World is going to be printed out  
        System.out.println("Hello World!");  
    }  
}
```

- Look forward to principles of clean coding ;)

# Variables I

- Variables are a kind of data container for values or a jar ;)
- Variables = Type + Identifier + Value



# Variables II

- Different types of variables exist:
  - Boolean => “true” or “false”
  - Int or Integer => 1 ... 1000000000000000...
  - Float => 1,5677
  - String => “Java is cool”
  - Char => “J”
- Identifier
  - String x = “Sascha” //bad naming
  - String meinVorname = “Sascha” //better
  - Look forward for clean coding
  - Casesensitive => myVar <> myvar
  - You can use letters, digits, \_, small and big letters
  - Reserved words are excluded like ”String”...

# Variables III

## Summary:

```
public class Main {
    public static void main(String[] args) {
        String name = "John";
        final int numberInt = 2; //not changable
        double valueDouble = 2.45;
        float valuefloat = 2.45f;
        System.out.println(name);
        System.out.println(numberInt);
        System.out.println(valueDouble);
        System.out.println(valuefloat);

        //Overwrite variables
        name = "Henry";
        System.out.println(name);

        //Cant change final variables
        //numberInt = 3;
        //System.out.println(numberInt);

        //Combine text and variables
        System.out.println("Hello" + name);

        //Fuse two variables to a new variable
        String lastName = " Doe";
        String fullName = name + lastName;
        System.out.println(fullName);

        //different way of writing variables
        int x = 6, y = 7, z = 8;
        System.out.println(x + y + z);
    }
}
```

# Homework

- Change your main.java – file so you get the following outcome using String, int, float and char types:

```
Student Name: John Doe  
Student ID: 15  
Student Age: 23  
Student Fee: 75.25  
Student Grade: B
```

- After you finished comment you solution out. Now change your file in a way that you get this outcome (Rectangle area is length \* width and only use int types):

```
Length is: 4  
Width is : 6  
Rectangle area is: 24
```