

## Helpful Java Programming Cheat Sheet

Cheat sheets are particularly important when it comes to mastering a new concept. And in Java, it makes no difference. The complexities in Java at times need to be simplified to make students and learners understand exactly what is going on in the field.

The Java programming cheat sheet we have compiled here can be used as a repeat reference for any assignments you might have. They not only serve as an easy reference but are also used to ensure that you do not miss any vital steps when writing code for a given program. So, without further ado, have a look at our comprehensive [java cheat sheet](#) below!

### The Basics of Our Java Programming Cheat Sheet

Here are some of the common terminologies and symbols used in Java that is basically the foundation of Java programming:

#### Java Comments

Java comments are important pieces of information that help the users of your code understand exactly what you are attempting to do as they go over your code. The comments do not affect the flow of code in any way whatsoever!

Here are some of the most common java comment symbols used:

- `//` - This is used while commenting on a single line
- `/* ..... */` - Used to comment when referring to a block of code
- `** ..... */` - Used for commenting when also referring to a block of code. However, this is used specifically by the Javadoc tool while producing Java documentation.

#### Primitive Data Types

Before we move onto more complex code, here are some other primitive data types that you need to be aware of in Java.

Some of these include:

- **Byte** - a byte is a denominator in Java that consists of 8 bits. The minimum value is -128 while its maximum value is +127
- **Short (Signed integer)** - consists of 16 bits and has a minimum value of -32,768 and maximum value of +32,767
- **Int (Signed Integer)** - consists of 32 bits and has a min value of  $-2.147^9$  and a max value of  $2.147^9$

- **Long (Signed integer)** - consists of 64 bits and has a minimum value of  $-9.223^{18}$  and a max value of  $9.223^{18}$

## Common Java Name Conventions in Our Java Programming Cheat Sheet



Here are some common naming conventions that you need to consider and have a look at Java codes or creating codes on your own:

- **Variable names** - these can begin with a letter, a dollar sign \$, or an underscore `_`. However, they cannot begin with a number or a reserved word
- **Constant names** - these usually appear in Java coding as capitals. For example” `Font.ITALIC`, `Font.BOLD`
- **Method names** - these refer to verbs or in some cases verb phrases that have the first letter in lowercase, while the subsequent letters of following words are capitalized. A good example is `setColor` e.t.c.
- **Class and interface names** - these are descriptive names that normally begin with a capital letter, and cannot be a reserved word.

## Basic Java Operations in Our Java Programming Sheet

In this java coding cheat sheet, we have prepared some basic operations that you can familiarize yourself with as you proceed in your growth and stabilization in java programming.

**Some of these basic operations include the following:**

### Array Declaration

An array can be described as any datatype, that is usually created in two main steps.

**One is array declaration while the other is memory allocation:**

- **Array declaration**

```
[] ;
```

**Example:** `int[] louisarray1;`

`double[] louisarray2;`

- **Memory allocation**

'New' allocates memory to a specific array as shown:

`= new [];`

**Example:**

`myarray1 = new int[10];`

`Myarray2 = new double[15];`

### Variable Declaration

**Declaring a variable within Java is as follows:**

**Example:** `int num1;`

- **Variable initialization** - to initialize a variable with a value, you do the following:

`= value`

**Example:** `double num2 = 3.1419;`

### Class Declaration

**To declare a class, you must first begin with the word class then followed by the class name:**

`class`

`{`

\_\_\_\_\_ Body of the class

**Example:**

`class extends`

`implements`

```
{  
  _____Member variable declarations;  
  _____Method declarations and definitions  
}
```

### Statements

As you are aware by now after attending a couple of Java classes or course, that statements form the core of java programming.

**In the early stages, some of the statements you have to master as you advance in your programming skills include the following:**

**If....else** - this expression in Java is used to introduce a proceeding sequence if it suits a given condition.

```
if(condition)
```

```
{  
  
statements;  
  
}
```

```
else
```

```
{  
  
statements;  
  
}
```

**For loop** - used to create a loop whenever a condition is met or not.

```
for(initialization; condition; increment)
```

```
{  
  
statements;  
  
}
```

```
}
```

**While loop** - used to create a loop while a given condition is being satisfied.

```
while(condition)
```

```
{
```

```
statements;
```

```
}
```

**Do...while loop** - this refers to commanding a given action to take place while a given condition has been met.

```
do
```

```
{
```

```
statements;
```

```
}
```

```
while(condition);
```

**Switch statement** - you can have quite a number of cases in a given code. In simple terms, the switch statement is used to move from case to another.

```
switch(variable)
```

```
{
```

```
case(value1):
```

```
statements;
```

```
break;
```

```
case(value2):
```

statements;

break;

default:

statements;

break;

}

## How to Use Java Compiler to Run Your Codes and Create Programs

Now that you have seen some important sections of Java that result in the smooth running of your code, here are some ways to begin with Java coding efficiently. For example, a process of running a standalone application in Java:

**Here is a step by step process of how to run a given code or application in Java:**

- **Type the program** - say, for example. you have typed in the following code. You can type it in the DOS editor or notepad, then proceed to save it as a file with a .java extension.

class

{

public static void main(String args[])

{

statements;

\_\_\_\_\_;

\_\_\_\_\_;

}

- **Ensure that the file name is identical to that of the class**, which has a similar main method.
- **After saving, you need to compile the program** - you can do this by typing the following on the command line.

### **By doing this, you will be compiling using the javac compiler:**

javac for example, javac louishero.java

- **Run the program using the Java interpreter** - after compilation, you can proceed to do the following to run the program.  
java (without the .java extension)

So that would amount to the same as java Louis here

- **Observe the program output display** - after running the program, the output of the program will be displayed on the command line.

And on that note, you now have the basics to conveniently improve your skills as you go through your course in Java programming. You can always have a look at this cheat sheet and other java cheat sheets we will consistently be providing to help you build and develop your Java skills!

**Use our java programming cheat sheet in order to get inspired and achieve the best!**