<http://www.tutorialspoint.com/java/java_basic_syntax.htm>

Java - Basic Syntax

**Class Names -**For all class names the first letter should be in Upper Case.   
  
If several words are used to form a name of the class, each inner word's first letter should be in Upper Case.

**Method Names -**All method names should start with a Lower Case letter.   
  
If several words are used to form the name of the method, then each inner word's first letter should be in Upper Case.

**Program File Name -**Name of the program file should exactly match the class name.

**public static void main(String args[]) -** Java program processing starts from the main() method which is a mandatory part of every Java program.

## Java Identifiers:

All Java components require names. Names used for classes, variables and methods are called identifiers.

In Java, there are several points to remember about identifiers. They are as follows:

* All identifiers should begin with a letter (A to Z or a to z), currency character ($) or an underscore (\_).

# Java - Object & Classes

## Constructors:

Every class has a constructor. If we do not explicitly write a constructor for a class the Java compiler builds a default constructor for that class.

## Source file declaration rules:

* There can be only one public class per source file.
* A source file can have multiple non public classes.
* The public class name should be the name of the source file as well which should be appended by **.java** at the end. For example: the class name is *public class Employee{}* then the source file should be as Employee.java.
* If the class is defined inside a package, then the package statement should be the first statement in the source file.
* If import statements are present then they must be written between the package statement and the class declaration. If there are no package statements then the import statement should be the first line in the source file.
* Import and package statements will imply to all the classes present in the source file. It is not possible to declare different import and/or package statements to different classes in the source file.

## Java Package:

In simple, it is a way of categorizing the classes and interfaces.

## Import statements:

In Java if a fully qualified name, which includes the package and the class name, is given then the compiler can easily locate the source code or classes. Import statement is a way of giving the proper location for the compiler to find that particular class.

For example, the following line would ask compiler to load all the classes available in directory java\_installation/java/io :

import java.io.\*;

# Java - Basic Datatypes

## Primitive Data Types:

There are eight primitive data types supported by Java. Primitive data types are predefined by the language and named by a keyword.

## byte:

* Byte data type is an 8-bit signed two's complement integer.

## short:

* Short data type is a 16-bit signed two's complement integer.
* Minimum value is -32,768 (-2^15)

## int:

* Int data type is a 32-bit signed two's complement integer.

## long:

* Long data type is a 64-bit signed two's complement integer.

## float:

* Float data type is a single-precision 32-bit IEEE 754 floating point.

## double:

* double data type is a double-precision 64-bit IEEE 754 floating point.

## boolean

## char:

* char data type is a single 16-bit Unicode character.
* Minimum value is '\u0000' (or 0).
* Maximum value is '\uffff' (or 65,535 inclusive).

## Reference Data Types:

* Class objects, and various type of array variables come under reference data type.
* Default value of any reference variable is null.