**BASICS**

OOP is a programming methodology that helps organize Complex programs through the use of   
Inheritance, Encapsulation, Polymorphism,   
Abstraction, Information passing and Message passing.  
(All definitions written later)

* 1. FIRST PROGRAM (Hello World! ) HelloWorld.java

Note:   
For Java to recognize this as a public class   
*(and not throw a compile-time error)*, the filename must be the same as the class name *(HelloWorld in this example)* with a **‘.java’** extension.   
There should also be a public access modifier before it.

Recommend Naming conventions in JAVA -

1. Classes *PascalNamingConvention*  
2. Methods/Variables/etc *camelCasingConvention*

The conventions recommend against underscores (\_) and dollar signs ($).

* 2. Keywords in Java

abstract continue for new switch   
assert default goto package synchronized   
boolean do if private this   
break double implements protected throw   
byte else import public throws   
case enum instanceof return transient   
catch extends int short try   
char final interface static void   
class finally long strictfp volatile   
const float native super while

* 3. VARIABLES

Instance Variable:   
A variable declared inside the class but outside the body of the method is

called an instance variable.

Local Variable:   
A local variable in Java is a variable that's declared within the body of a method

Static Variable:   
Static variables are stored in the static memory.   
  
Variables are created when the program starts and destroyed when the program stops.

* 4. DATA TYPES

PRIMITIVE   
{a basic type provided by the programming language as a basic building block}

1. Integer types

(1byte) 8bits - byte,

(2bytes) 16bits - short,

(4bytes) 32bits - int,

(8bytes) 64bits - long,

1. Floating Point

(4) 32 bits- float,

(8) 64 bits- double

1. Chars & Booleans

1 bit - boolean

16 bits- char

Non-primitive data types - such as Strings, Arrays, Interface, Object, and Classes

unsigned right shift operator, expressions, branching and looping.