# ASSIGNMENT-1

1. What is Abstraction?

Ans) Abstraction is a process of hiding the implementation details from the user. Only functionality will be provided to the user. It hides details at the design level.

1. What is Encapsulation?

Ans) Encapsulation in java is a mechanism to wrap up the data and methods together as a single unit. It is a process of hiding the information details and protecting the data and behavior of the object. It hides the details at the implementation level.

1. What is JDK?

Ans) Java Development Kit (JDK) is a software development environment used for developing java applications and applets. It includes the Java runtime environment (JRE), an interpreter(java), a Compiler(javac), an archiver (jar), a documentation generator (Javadoc) and also the other tools needed in java development.

1. What is JVM?

Ans) Java Virtual Machine is an abstract machine. It is a specification that provides runtime environment in which java bytecode can be executed. JVMs are available for many hardware and software platforms so JVM is platform dependent.

1. What is Inheritance?

Ans) It is the process of creating the new classes from the existing classes by this we can reuse the code and the sub class is inherit the from the super class. There are five types of inheritance they are single inheritance, multiple inheritance, multilevel inheritance, hierarchal inheritance, hybrid inheritance.

1. How java achieved platform independence?

Ans) Platform independent language means once compiled you can execute the program on any platform (OS). Java is platform independent. Because the Java compiler converts the source code to bytecode, which is Intermediate Language. Bytecode can be executed on any platform (OS) using JVM (Java Virtual Machine).

1. Write the syntax of main function?

Ans) public static void main (String args [])

* Public: This is the access modifier of the main method. It has to be public.
* Static: Java Main method should be static and a static method can be accessed without Instantiation.
* Void: It has no return type.
* Main: It is the name of the java main method.
* String args []: Java main method accepts a single argument of type String array. This is also called as java command line arguments

1. What is a Conditional operator?

Ans) Conditional operators are used to evaluate a condition that's applied to one or two Boolean expressions. They are Logical And (&&), Logical OR (||), and the ternary operator (? :).

1. How many data types in java?

Ans) There are 8 data types in java. They are

|  |  |  |
| --- | --- | --- |
| **Data Type** | **Size of Data Type** | **Range** |
| Boolean | 1-bit | True or False |
| Byte | 8-bits | -128 to 127 |
| Char | 16-bits | 0 to 255 (Ascii values) |
| Short | 16-bits | -32768 to 32767 |
| Int | 32-bits | -2147483648 to 2147483647 |
| Long | 64-bits | -9223372036854775808 to 9223372036854775807 |
| Float | 32-bits | Upto 7 decimal digits |
| Double | 64-bits | Upo 16 decimal digits |

1. What is a constant? How it is declared?

Ans) Constants in Java are used when a [static](https://www.edureka.co/blog/variables-in-java/) value or a permanent value for a variable has to be implemented. Java doesn’t directly support constants. To make any variable a constant, we must use ‘static’ and ‘final’ modifiers.

Eg: static final int MIN\_AGE = 18;

static int days\_in\_week = 7;