



FUNDAMENTALS OF JAVA ASSIGNMENT



Assignment Question

1. What is Programming Language?

Answer → Programming Language is a computer language that is used by programmers (developers) to communicate with computers. It is set of instructions written in any specific language (C , C++ , Java , Python) to perform a specific task.

2. Why do we need a Programming Language?

Answer → A prominent purpose of programming languages is to provide instructions or communicate with a computer and are used to develop an application for performing a specific task , automating things and etc. There are some example you may come to know when you are going to learn a programming language.

- ❖ Not just for academics, but for the real world as well, all programming is done.
- ❖ Due to programmers developed by computer programming, you can conduct online banking and purchase your ticket while travelling by train or aeroplane. It's true that your washing machine has a few different kinds of computer programmes. Programming makes it possible for all of these things and many more.

3. What are the features of Java?

Answer → Java is a high – level and purely object oriented programming language , here are some important features of java programming language are given below :-

- ❖ Object-Oriented → Java is an object oriented programming language, which means in java everything is written in terms of classes and objects. Now, what is an object ? The object is nothing but a real-world entity that can represent any person , place or Thing and can be distinguished from others. Its object model is straight forward and flexible.
- ❖ Simple → Java is a simple programming language and easy to understand because it does not contain complexities that exist prior programming languages examples such as (C / C++).
- ❖ Platform Independent → Because Java are platform independent, application programs created in one operating system can run on any other operating system. C and C++ , however ,are platform dependent languages, making it impossible for application programs created in one operating system to run in any other Operating System.
- ❖ Secure → Java offers a variety of defences against malware and viruses. It guarantees That neither damage nor security will be compromised.



- ❖ **Portable** → We have the idea of portability in Java. Java allows the same software to run on various platforms.
- ❖ **Multi-threaded** → Java's multithreading programming capability enables you to create a program that executes multiple tasks concurrently.

4. What is a Class?

Answer → A Class in Java is a logical template is group of objects which have common properties and methods. It is a user defined blueprint from which objects are created. Hence, all objects in a given class will have the same methods or properties. It is a logical entity. It can't be physical.

5. What is an Object?

Answer → An Object is a real-world entity. An Object is a runtime entity. The Object is an entity which has state and behavior. Each Object is an instance of a particular class or subclass with the class's own methods or procedures and data variables. An Object is what actually runs in the computer.

6. Explain about the main() method in Java?

Answer → The main () is the starting point for JVM to start execution of a Java program.

Without the main () method, JVM will not execute the program. The syntax of the main () method is :-

“ public static void main(strings[] args); “

Where,

Public :- Public is a Access Specifier. We need to use the public keyword to let the JVM know where the programme is actually being executed.

Static :- By using static keyword. We should call the main () method without creating an object. Static methods are the method which is invoked without creating the objects, so we do not need any object to call the main() method.

Void :- Void is a return type. Void keyword acknowledges the compiler that the main() method does not return any value.

Main:- It is a default method name which is predefined in the JVM. It is called by JVM to execute a program line by line and end the execution after completion of this method.

Strings[] args :- It is a Command Line Arguments. The main() method also accepts some data from the user. It accepts a group of strings, which is called a string array. It is use to hold the command line arguments in the form of string values.