

1. What is Programming Language?

A programming language is basically a vocabulary set of grammatical rules for instructing a computer or computing device to perform specific tasks.

There are three category of Programming language:

Machine level Language

Assembly Language

High level Language

2. Why do you need a Programming Language?

The major need of the programming language is to communicate with the computers and also the programming languages are used to develop an application for performing a specific task, automating things and many more. Programming Language is important in our day to day life to enhance and increase the power of computers, mobile solutions, and the internet. The actual power of the language is when the right programmer uses it with the right features to solve a problem or for any of the specific purpose.

3. What are the features of Java?

a)Simple: Java is simple programming language and easy to understand because it does not contain complexities that exists in the prior programming languages. Java contains the same syntax as C and C++ so the programmers not face any problem in case of the syntax and also the concept of pointers have been completely removed from it.

b)Object-Oriented: In Java everything is written in terms of classes and objects. Object is nothing but a real world entity that can represent any person, place or thing. A collection of objects that exhibits the same state and behavior will come under the same group called class.

c)Platform Independent: Java can work on any platform, here platform means a type of operating system and hardware technology. Java allows programmers to write their program on any machine with any configuration and to execute on any other machine having different configurations. Java source code is compiled to bytecode and this bytecode is not bound to any platform. This bytecode is only understandable by the java virtual machine which is not the system independent.

d)Robust: It means that it is capable of handling unexpected termination of program. If an exception occurs in the java code then no harm will happen and also it has good memory management system.

e)Secure: Security problems like virus, threat, tampering, eavesdropping, impersonation can be handled or minimized using Java. Encryption and Decryption features to secure your data.

4. What is an Object?

Object is basically defined as the instance of class or you can say that it is the basic unit of object oriented programming language and it represents real life entities.

State: It is represented by attributes of an object. It also reflects the properties of an obj.

Behavior: It is represented by methods of an object. It also reflects the response of an

Object with other objects.

Identity:It gives a unique name to an object and enables one object to interact with other Objects.

5. What is a Class?

Class is a set of objects which share common characteristics and common properties.It is not a real world entity,it is just a template or blueprint from which the objects are created and also the class does not occupy memory.Class is a group of variables of different types and groups of methods.

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

Main method is the entry point for executing a Java Program.The main method can contain code to execute or call other methods.The access modifier of the main method needs to be public so that the JRE can execute this method.When the java program starts there is no object of the class present,the main method is to be static so that the JVM can load the class into memory and call the main method without creating an instance of the class first.Now finally the java method must provide a return type.The java main method return type is void because it doesn't return anything.