

Fundamentals of Java Assignment

1. What is Programming language?

Ans1. A Programming language used to instruct a computer or other machine to perform a specific set of tasks. It is essentially a set of rules and syntax that allow programmers to write instructions or code that the computer can understand and execute.

2. Why do we need a programming language?

Ans2. Programming languages are used to instruct computers to perform specific tasks. They enable humans to communicate with machines, allowing us to develop complex software, automate processes, and solve real-world problems efficiently.

3. What are features of Java?

Ans3. Java is a high- level programming language that was first released in 1995. It is designed to be platform-independent, object-oriented, and highly secure. Some of the key features of Java are:

- Platform independency
- Object-oriented programming
- Automatic memory management
- Security
- Rich API
- Multithreading
- Performance
- Wide range of tools and IDEs

4. What is an object?

Ans4. An object is a self-contained unit of code that contains properties(variables) and methods(functions) and can interact with other objects. It is an instance of a class and can be created and manipulated in object-oriented programming languages such as Java and Python.

5. What is a class?

Ans5. In object-oriented programming, a class is a blueprint or a template for creating objects that contain data and functions. It defines a set of attributes and methods that are common to all objects of that class. Objects are instances of a class, created using the class definition. The class encapsulates the data and behavior of the objects it creates, providing a modular and reusable way of organizing code. Classes are a fundamental concept in object-oriented programming and are used to create complex systems that can be easily maintained, extended, and reused.

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

Ans6. The main() method is a mandatory method in a Java program and serves as the entry point for the program's execution. It is the first method that is executed when a Java program starts running. The main() method must be declared as public,static,and void,and it takes an array of strings in the array represent the command-line arguments passed to the program. The main() method typically calls other methods and controls the flow of the program's execution. It is an essential part of the Java programming language and is used to execute standalone applications,applets, and servlets.