

ASSIGNMENT - 1

1.what is java?

- Java is an object oriented programming language used for coding web applications.
- It is used for creating software that makes it compatible with many different operating environments.

2.Explain all the java features in one or two lines.

- Simple : It is easy to understand and it doesn't have complex features like operator loading and multiple inheritance.
- Object Oriented : Object oriented programming is a way of organizing programs as collection of objects, each of which represents an instance of a class.
- Platform independent : A program that is compiled on windows can run on Linux and vice versa.
- Portable : Java code that is written on one machine can run on another machine.
- Distributed : It can be distributed on more than one systems that are connected to each other using internet connection.
- Secure : It is secure because it has automatic garbage collection system.
- Robust: Java is robust because it utilizes strong memory management.
- Multithreading : It allows concurrent execution of two or more parts of a program for maximum utilisation of CPU.

3.In which folder can we find the javac, java, javah, javarmi commands?

- Java is placed in the same directory as Server and RMI Interface.
- By default, javah places the new .h file
- In the same directory as the .class file.
- You can tell javah to place the header files in a different directory with the -d option.

4.what all the environment variables to set to run the java programs through command prompt?

- C:\Users\91709>e:
- E:\>cd programs
- E:\programs>javac HelloWorld.java
- E:\programs>java HelloWorld

5.what are the rules of naming the class

- The first letter of class name should always be in uppercase.

6.which is the main entry point of java program

- The main() function is considered as the entry point of java program.

7.components of java program are?

- Java Virtual Machine, Java Runtime Environment and Java Development Kit .

8.what is jvm ,jre, jdk?

- JVM runs the program by using class, libraries and files provided by JRE.
- JRE is the environment within which the java virtual machine runs.
- JDK is a superset of JRE, it contains everything that JRE has along with development tools such as compiler, debugger etc.

9.Explain the components of compile time environments and run time environments.

- Components of compile time:
Source file, compiler, class file.
- Components of run time:
Os ,JVM(execution engine, JIT compiler,class loader, bytecode verifier), Java API.

10.what is JIT?

- The Just-In-Time (JIT) compiler is a component of the Java Runtime Environment that improves the performance of Java applications at run time.

11.Different types of memory in jvm.

- Heap memory.
- Non-heap memory.

12.In which area .class is stored?

- .class files are stored in the method area.

13.In which area object are stored?

- Objects are getting stored in the heap memory.

14.Why do we call as java simple?

- Java is easy to learn and understand.
- It doesn't contain complex contents like pointer.

15. Why java is platform independent explain?

- Java is called Platform Independent because programs written in Java can be run on multiple platforms without re-writing them individually for a particular platform.

16. Is JVM platform dependent??

- Yes, JVM is platform-independent.

17. Is Java case sensitive?

- Yes, Java is case sensitive.

18. Is Java a complete object-oriented programming language?

- No, Java is not completely Object Oriented programming language.
- Java is not completely OOP language due to two reasons-

1. The primitive data types. These include int, char, etc. These can be used without the use of any object.
2. The static keyword. When we declare a class as 'static' then it can be referenced without the use of an object.