

1) If we remove the static keyword from the main method then our code will execute or not, if yes then how?

:- In any Java program, the main method is the starting point from where compiler starts program execution. So, the compiler needs to call the main method. If we keep the main method as non static then JVM tries to create object or instantiate its class. Static method of a class can be called by using the class name only without creating an object of a class. Hence, if we do not declare main as static the program wouldn't be able to call it even before the object for the class is created. Hence, the compiler will give an error stating run-time error saying main() is not declared static.

2) Why is java a general purpose language?

:- Java is a very powerful general-purpose programming language. It is a general-purpose programming language intended to let programmers write once, run anywhere meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer hardware.

3) Rules for creating / executing Java programs?

- ❖ We can declare number of class in java program and can declare only **AT MOST** one public class in a program.
- ❖ If we are declaring the class as public then the file name should be of public class name only otherwise we will get error saying "class 'Hello' is public, should be declared in a file named Hello.java public class Hello"
- ❖ If a Java program having the n class then the n ".class" file will generate.
- ❖ For compilation and execution the most important thing is to set the build path
- ❖ We can save the program using ".java" extension and compile the java program using the `javac class_name.java` after compiling .class file will get generated.
- ❖ For execution we need to use command : `java Class_name`
- ❖ Note:- that for compilation "public class name" is important and for Execution "main()" class.