

Emulator is a software that allows to execute programs which were not originally dedicated for that platform. It is a program, that copies behaviour of other systems or old gaming consoles and allow to run program and games, which has been made for those other platform.

JVM software are simple to use, yet widely adaptable. There is no installation as the emulator is portable and can even be run from removable USB drive. Just downloading the package, extract it somewhere in computer and use it.

Java is an object-oriented programming language, so we need to deal with objects many times like in collections, serialization, synchronisation etc. Let us see the different scenarios where we need to use the wrapper class.

Change the values in method: Java support only call by value. So if we pass a primitive value, it will not change the original value. But if we convert the primitive value in an object it will change the original value.

Serialization: We need to convert the objects into stream to perform the serialization. If we have a primitive class. We can convert it into obj through the wrapper class.

- Synchronization: Java synchronisation works with objects in multithreading.
- Java.util package: The java.util package provides the util classes to deal with the objects.
- Collection Framework: Java collection framework work with objects only. All collection framework (ArrayList, LinkedList, Vector, HashSet, TreeSet, PriorityQueue) deals with obj only.

3. String objects are considered as an immutable because their normal variable are treated with their reference and one can pass them around, between methods and across threads without worrying about whether the actual string objects its pointing to will change.

Starting features that immutability provides such as caching, security easy reuse without replications etc.

4. The main() method is declared as static because it helps to ensure JVM can invoke the entry point (main method) without creating instance of the class.

5. Default: When no access modifiers is specified for a class, method or data member. It is said to be having the default access modifier by default.

→ Private:-

The private access modifier is specified using the keyword private.

- The methods or data members declared as private are accessible only within the class in which they are declared.
- Any other class of the same package will not be able to access these members.

→ Protected:-

The protected access modifier is specified using the keyword protected.

The methods or data members declared as protected are accessible within the same package or subclass in different package.

→ Public:-

The public access modifier is specified using the keyword public.

The public access modifier has the widest scope among all other access modifiers.

6. Java primitives types are not implemented as objects. Rather they are implemented as normal variables.

7 (i) Hello World

(ii) $1 < 2 < 3$ is 1

$1 > 2 > 3$ is 0

(iii) Inside Sinit of C

C.mem = 1