

A Short History of Java

- It's all started with making modern software technology to consumer electronics.
- The priority was reliability, cost, standards and simplicity. Workstations were wanted lots of power and can tolerate high prices. By observing these things project referred to as "Green Project."
- To make development a more platform-neutral process, Gosling began by extending C++ compiler. but realized it will not be sufficient. This way Oak came in mid 1991. by Sun Microsystems.
- In the fall of 1992, the project engineer Patrick Naughton ^{after} characterizes as massive work Oak, the Green OS, UI and hardware, the green project delineated "X7", the PDA like device "handheld remote control".
- ^{failure of X7} But Time-Warner denied settop box OS and videon demand technology.
- In 1994, Naughton and fellow Sun engineer Jonathan Payne finished writing WebRunner a web browser. In 1994, it is also renamed to Java due to trademark issues.
- In 1996, Java 1.0 came in for first public ^{on} implementation.
- In 2010, Oracle acquired Sun Microsystems.
- Java slogan is: "Write Once, Run Anywhere".

Java Language features

Although primary objective of Java is simple, portable and security. But apart from it has multiple features—

Pl. Platform Independent

- Simple
- Object Oriented
- Secured
- Simple
- Robust
- High performance
- Dynamic
- Distributed
- Multithreaded

→ Which version of Java should I use?

We always use version of Java which provides long term support. to make product. so this way many problems can be avoided.

If you want to use latest feature, you can use latest version. But it is always a stick with LTS.

eg, Java 8, Java 11, Java 17, Java 21 these are all come with LTS.

JDK Installation Directory Structure

Here we are looking at 1.8 Java directories.

/jdk-1.8 — Root directory of JDK software installation. Contains copyright, README, licence files. Also contains src.zip, the archive of source code of Java platform.

/jdk-1.8/bin — Executables for all the development tools contained in the JDK. The PATH environment variable should contain an entry for this directory.

/jdk-1.8/lib — files used by the development tools. It includes tools.jar, which contains non-core classes for support of the tools and utilities in the JDK.

/jdk-1.8/jre — Root directory of the Java Runtime Environment used by the JDK development tools. It is implementation of the Java platform. It refers to java.home system property.

/jdk-1.8/jre/bin — Executable files for tools and libraries used by Java platform.

/jdk-1.8/jre/lib — Code libraries, property setting and resource files used by the JRE.

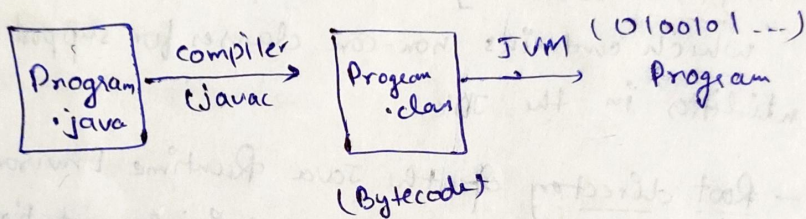
About Java Technology

Java technology is both a programming language and a platform.

The Java Programming Language

— It is a high-level language that can be characterized by all of the buzzwords.

- Simple
- Distributed
- Portable
- Robust
- Object Oriented
- Multithreaded
- Dynamic
- Secure
- High Performance
- Architecture neutral



java launcher tool runs your application with an instance of the JVM.

The Java Platform — A platform is the hardware or software environment in which a program runs.

It is different for all OS. (~~consist~~ combination of OS and underlying hardware)

It has two components —

- JVM — It is base for the Java platform
- Java API — It is large collection of ready-made software components that provide many useful capabilities.

It is grouped into libraries of related classes & interfaces, known as packages.

Coding Assignments

Hello World Program -

```
1. public class Main {  
    public static void main(String[] args) {  
        System.out.println("Hello World!");  
    }  
}
```

=