

## \* History of Java :→

- The very first name of Java is "Green".
- Java is general purpose programming language that is class-based, object-oriented and design to have as few implementation dependencies as possible.
- Java was originally developed by James Gosling's at sun microsystems (which has since been acquired by oracle) and released in 1995 as a core component of sun microsystems Java platform.
- James Gosling's, Mike Sheridan and Patrick Naughton initiated the Java language project in June 1991.
- The language was initially called Oak after an oak tree that stood outside Gosling's office.
- Why had they chosen Java Name for Java language the team gathered to choose a new Name. The suggested words were "dynamic".
- James Gosling's is a father of Java, "revolutionary", "silk", "Jolt", "DNA" etc. They wanted something that reflected the essence of the technology: Revolutionary, dynamic, lively, cool, unique and easy to spell and fun to say.
- Why oak? Oak is a symbol of strength and chosen as a national tree of many countries like the U.S.A, France, Germany, Romania etc.
- In 1995, oak was renamed as "Java" because it was already a trademark by Oak Technologies.
- Java is an island of Indonesia where the first coffee was produced (called Java coffee). It is a kind of espresso bean. Java Name was chosen by James Gosling's while having coffee near his office.
- Later the project went by the name Green and was finally renamed Java, from Java coffee, the coffee from Indonesia.
- Gosling's design Java with a C/C++ style syntax that system and application programmers would find familiar.



- Sun Microsystems released the first public implementation of Java 1.0 in 1996.
- JDK 1.0 released in (January 23, 1996). After the first release of Java, there have been many additional features added to the language. Now Java is being used in windows applications, web applications, enterprise applications, mobile applications, etc. Each new version adds the new features in Java.
- It promised "Write once, Run anywhere" (WORA)

Version

Date

Version	Date
1) JDK 1.0	January 23, 1996
2) JDK 1.1	February 19, 1997
3) J2SE 1.2	December 8, 1996
4) J2SE 1.3	May 8, 2000
5) J2SE 1.4	February 6, 2002
6) J2SE 5.0	September 30, 2004
7) Java SE 6	December 11, 2006
8) Java SE 7	July 28, 2011
9) Java SE 8	March 18, 2014
10) Java SE 9	September 21, 2017
11) Java SE 10	March 20, 2018
12) Java SE 11	September 25, 2018
13) Java SE 12	March 19, 2019
14) Java SE 13	September 17, 2019
15) Java SE 14	March 17, 2020



- The principles for creating Java programming were "simple, Robust, portable, platform Independent, secured, high performance, multithreaded, Architecture Neutral, object-oriented, Interpreted and dynamic".
- Java was developed by James Gosling, who is known as the father of Java, in 1995. James Gosling and his team members started the project in the early 90's.
- "James Gosling's" - founder of Java  
currently, Java is used in internet programming, mobile devices, games, e-business solutions etc. There are given significant points that describe the history of Java.
- Java is a high-level programming language originally developed by Sun Microsystems and released in 1995. Java runs on a variety of platforms, such as windows, Mac OS, and the various versions of UNIX.

### ⇒ Why to learn Java programming?

- 1) Java is a must for students and working professionals to become a great software Engineer specially when they are working in software development Domain. I will list down some of the key advantages of learning Java programming.
- 2) object oriented - In Java, everything is an object. Java can be easily extended since it is based on the object model.
- 3) platform Independent - Unlike many other programming languages including C and C++, when Java is compiled, it is not compiled into platform specific machine, rather into platform independent byte code. This byte code is distributed over the web and interpreted by the virtual machine (JVM) on whichever platform it is being run on.



4) **secure** - with Java secure features it enable to develop virus-free, tamper-free system. Authentication techniques are based on public-key encryption.

5) **Architecture-Neutral** - Java compiler generates an Architecture-Neutral object file format, which make the compile code execution on many processors, with the presence of Java runtime system.

6) **portable** - Being architecture-Neutral and having no implementation dependant aspect of the specification make Java portable. Compiler in Java is written in ANSI C with a clean portability boundary.

7) **Robust** - Java makes an effort to eliminate error prone situation by emphasizing mainly on compile time error checking and runtime checking.

Q. **Tell me something about Java or brief about Java? (Ans by me)**

- firstly Java is discovered by James Gosling's at sun Microsystems and released in 1995. The first Name of Java was Green.
- The first Name of Java language is "oak" a Name tree which is popular for or we can say that it is a symbol of strength and choosen as a national tree of many countries.
- Java is a general purpose programming language or we can call it as object-oriented language.
- Java is the language we can use it on many platform, it is a platform independent language.
- Java is used in software as ~~hardware~~ as well as in hardware.
- Java is used in various application like enterprise application, mobile application, windows application, web application etc.



- James Gosling's promises one thing to the world that is "Write once and run anywhere".
- Java is object-oriented, platform independent, secure, portable, Architecture-Neutral and Robust language.

Q. Explain something about Java? (Ans by sir)

- 1) Java is a computer programming language
- 2) Java is general purpose language it means it does not used for single purpose so it is used for multiple purpose.
- 3) Java promises WORA - Write once Run anywhere.
- 4) Java programming language is used in software as well as in Hardware.
- 5) In software it is used to design and develop of the applications and in hardware it is used to run the application.
- 6) Java is object oriented programming language.
- 7) Java is more secure than other programming language.
- 8) Java is Robust in Nature
- 9) Java platform Independent
- 10) Java is portable
- 11) Java has its own garbage collector.
- 12) Java requires less memory

\* Where Java is used? :->

- There are many devices where Java is currently used. Some of them are as follows:-

- 1) Desktop applications
- 2) Web applications
- 3) Mobile - Androide (ADB)
- 4) Embedded system
- 5) Robotics
- 6) Big Data
- 7) Games etc.

## \* Classification of Java programming language :-

- 1) J2ME :- Java to micro edition
- 2) J2EE :- Java to Enterprise edition
- 3) J2SE :- Java to standard edition

- Example of Desktop Application :- Microsoft office, Excel, powerpoint
- J2SE & J2EE both are Web application
- J2EE example :- Banking Application, E-commerce, Telecom, etc.
- J2SE example :- Laptop, mobile etc.
- J2SE example :- calculator, games etc.

## \* Types of Java application :-

- 1) Standalone application :- (Desktop based / Window based App)  
An application we need to install in an every machine.  
ex: media player, Antivirus, paint, Microsoft office etc.

### 2) Web-Based applications :-

An application that runs on server side and create dynamic pages.

ex: Facebook, Amazon, paytm, zee5, banking application, telecom application, health care application etc.

### 3) Enterprise Application :-

An application that is distributed in nature. i.e (Enterprise means it is a mixture) in which multiple activity is done.

### 4) Mobile Application :-

An application that created for device such as an Android, iOS.