In 1996, January 23rd the first version of Java was introduced.

In 1991, sun micro systems want to prepare software’s for simple electronics consumer devices using a simple programming language (like Cable TV switch boxes, remote controllers). The development of Java originally was started by a team of 30 people led by James gosling and Patrick Naughton. They named this project as Green which was later changed to Java in course of time.

The main aim behind the implementation of Java is to build a programming language which can be used in electronic items, and also which has less execution time, less memory and power consumption.

James Gosling, Mike Sheridan, and Patrick Naughton initiated the Java language project in June 1991. Sun Microsystems released the first public implementation as Java 1.0 in 1995. It promised “Write Once, Run Anywhere” (WORA), providing no-cost run-times on popular platforms.

<https://tech-insider.org/java/research/1998/05-a.html>

Sun micro systems wants below features of the programming language (initially it’s a paper plan)

1. Simple programming language
2. Tight coded programming language
3. Architectural neutral programming language

**Simple programming language means below**

Less execution times (means more performance)

Less memory consumption (low cost for the product)

Less power consumption (less maintenance cost)

**Simple:** Java is designed to be easy, simple and robust programming language which uses less memory and gives high performance.

**Tight coded programming language**

Let’s consider that we want to implement stack operations using C language, basically stack has three operations PUSH, POP and PEEK. PUSH is used to insert the data into the stack, POP is used to delete the data from the stack and PEEK is used to read the data present in the stack.  
  
To complete this we require some 30-40 lines of code in C language. Let’s see how many lines of code we require to perform same operation using java.

**java.util.Stack<String> s = new java.util.Stack<String>();**

**s.push("AAA");**

**s.pop();**

**s.peek();**

That’s all we are done with the stack operations with only four lines of code.  
  
So, here with we can define a PL as a Tight coded programming language if it takes a smaller number of instructions to execute the complex requirements.

If number of lines is more then it is called loose coded programming language.

**Architectural neutral programming language**

Java is an Architecture neutral programming language because, java allows its application to compile on one hardware architecture and to execute on another hardware architecture.

Java is architecture neutral because there are no implementation dependent features, for example, the size of primitive types is fixed.

In C programming, int data type occupies 2 bytes of memory for 32-bit architecture and 4 bytes of memory for 64-bit architecture. However, it occupies 4 bytes of memory for both 32 and 64-bit architectures in Java.

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.

Thus, when you write a piece of Java code in a particular platform and generated an executable code .class file. You can execute/run this .class file on any system the only condition is that the target system should have JVM (JRE) installed in it.

In short, Java compiler generates an architecture-neutral object file format, which makes the compiled code executable on many processors, with the presence of Java runtime system.

Pascal is an imperative and procedural programming language, designed by Niklaus Wirth as a small, efficient language intended to encourage good programming practices using structured programming and data structuring. It is named in honor of the French mathematician, philosopher and physicist Blaise Pascal.

Niklaus Wirth understood the requirements of sun microsystems new programming language and submitted his paper work in virtual machine to sun micro systems, but sun microsystems haven’t accepted the concept, because Niklaus Wirth presented his R&D in procedural programming language.

At the end of 1992, James Gosling prepared programming language and named as OAK (Oak I tree). Oak name is rejected by Sun microsystems, because at that time, there is already a programming language by name Oak.

And finally, the programing language was name as Java (a coffee type).

1993, and till mid of 1994 no one showed interest in Java.

Mid of 1994, www started. Java people started Hot Java browser

