

INTRODUCTION TO JAVA

Nonika Sharma, Rashika Kaul
IT Department, Dronacharya College Of Engg.
Gurgaon, Haryana.

Abstract- In our research paper we are going to discuss about what is java , features of java , its history , various principles of it ,its latest versions and how it has made programming secure and easy

I. INTRODUCTION

It is basically an object oriented computer programming language which is concurrent and designed specifically to have few implementations as possible. Its code can run on all platforms that support Java. It is one of the most popular and most used programming language and that to particularly for client server web applications. It reportedly has 9 million developers.

II. PRINCIPLES

1. It must be secure to use
2. It must be portable
3. It must be threaded
4. It must execute with high performance
5. It must be simple to use

III. HISTORY

It was originally developed by James Gosling at Sun Microsystems (which is now a part of Oracle Corporation). It was released in 1995. Syntax are derived basically from C and C++. Java was originally designed for interactive television, but it was to advanced for the digital cable industry at the time.

Initially it was called 'Oak'. Later to make it easy for the application programmers java with a C/C++ style syntax was designed.

IV. VERSIONS

Major release versions of Java

1. JDK 1.0 (January 21, 1996)

2. JDK 1.1 (February 19, 1997)
3. J2SE 1.2 (December 8, 1998)
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)

V. IMPLEMENTATIONS

Oracle Corporation is the current owner of the official implementation of the Java SE platform . The Oracle implementation is available for Microsoft Windows, Mac OS X, Linux and Solaris .The Oracle implementation is packaged into two different distributions: The Java Runtime Environment (JRE) which contains the parts of the Java SE platform required to run Java programs and is intended for end users and the Java Development Kit (JDK), which is intended for software developers and includes development tools such as the Java compiler, Jar, and a debugger. The goal of Java is to make all implementations of Java compatible. Historically, Sun's trademark license for usage of the Java brand insists that all implementations be "compatible". This resulted in a legal dispute with Microsoft after Sun claimed that the Microsoft implementation did not support RMI or JNI and had added platform-specific features of their own

WAP in java to display Hello World

```
class HelloWorldApp {  
    public static void main(String[] args) {  
        System.out.println("Hello World!"); // Prints the  
        string to the console.  
    }  
}
```

```
}  
}
```

VI. PERFORMANCE

Programs written in Java had a reputation for being slower and requiring more memory than those written in C++. However, Java programs' execution speed improved significantly with the introduction of Just-in-time compilation in 1997/1998 for Java 1.1, the addition of language features supporting better code analysis and optimizations in the Java virtual machine became the default for Sun's JVM in 2000. Some platforms offer direct hardware support for Java, there are microcontrollers that can run Java in hardware instead of a software Java virtual machine.