

Tender Heart High School

Class IX

Computer Application

Topic: Unit II - Introduction to Java

Teacher: Prabhdeep kaur

Java Programming - History of Java

The history of Java Starts from Green Team.

Java team members, initiated a revolutionary task to develop a language for digital devices such as set-top boxes television etc. Currently Java is used in internet programming, mobile devices etc.

James Gosling, Mike Sheridan and patrick initiated the Java language project in June 1991. The small team of Sun engineers called Green Team.

Originally designed for small, embedded systems in electronic appliances like set-top boxes.

Firstly, it was called "Greentalk" by James Gosling and file extension was .gt.

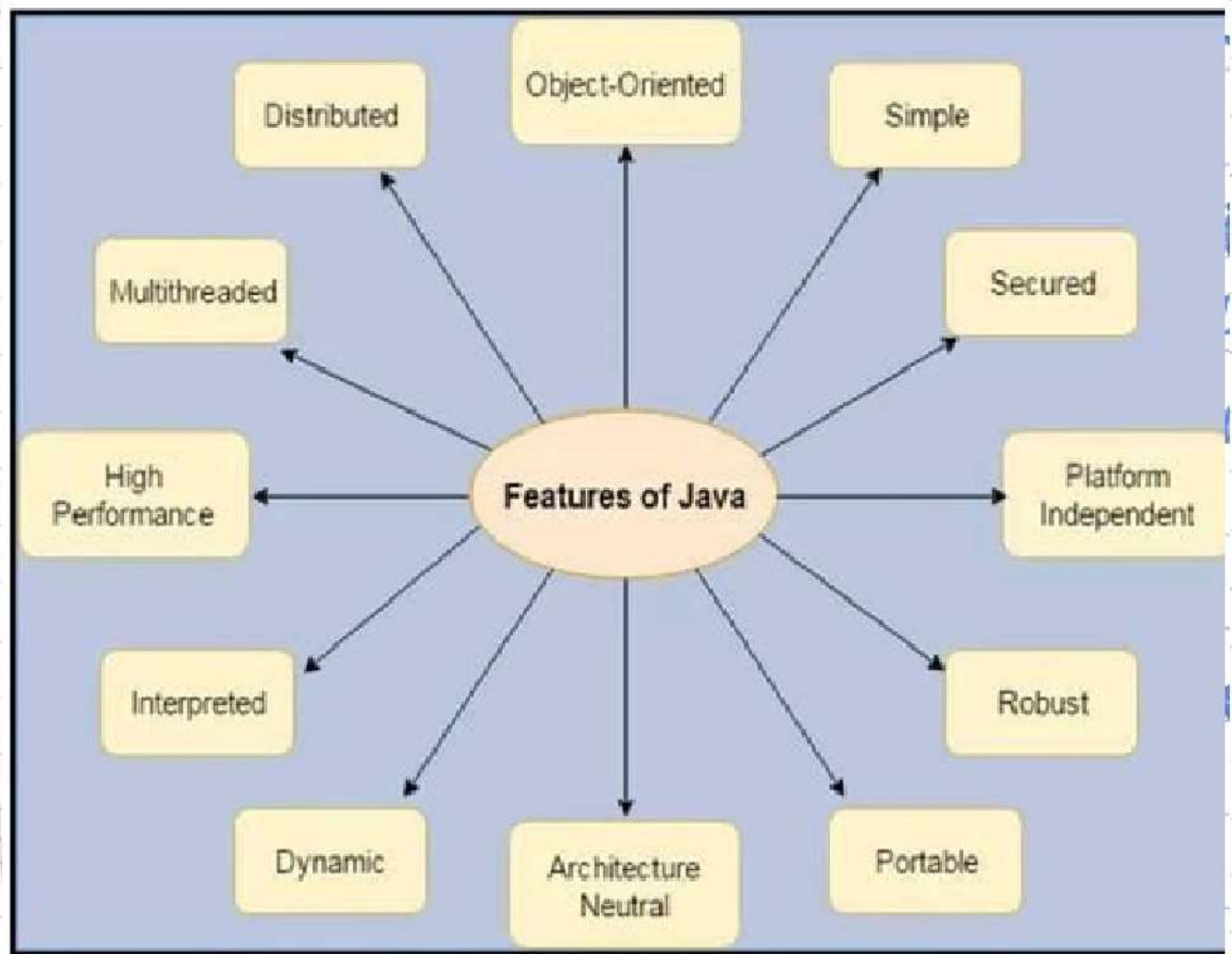
After that, it was called Oak and was developed as a part of the Green project.

There are many java versions that has been released. Current stable release of Java is Java SE 8.

Basic Features of Java:

1. Java is an Object Oriented programming language.
2. Java program are both compiled as well as interpreted.

3. It can access data from local system as well as from Internet.
4. Java program is written within a class. The variables and functions are declared which are defined within the class.
5. Java programs can create Applets (the programs executed inside the Java based web browser) and Applications (the programs developed by the users) like any other programming language.
6. Java is a case sensitive. The upper case and lower case letters are distinguished by the language.



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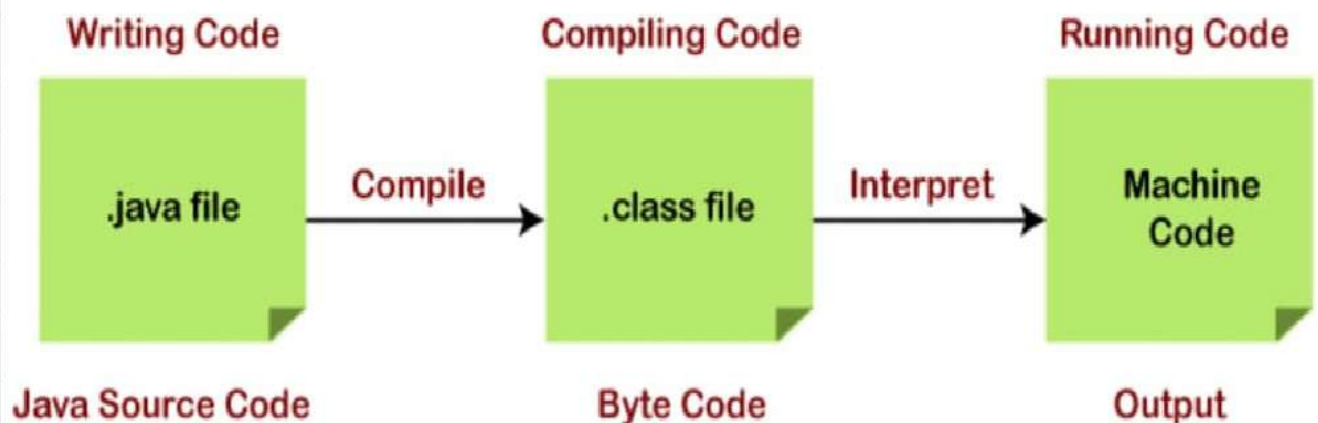
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Java Compiler and Interpreter

Each computer language uses either the Compiler or Interpreter to convert Source Code into object code. Java language treats compiler and interpreter in different ways.

Java Compiler is a software that converts the source code into an intermediate binary form called the byte code. The byte code is the common binary form of the program and work irrespective of the machine on which it is to be executed. Further Java interpreter accepts the byte code and converts it into machine code suitable to the specific platform.



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Java Interpreter AS VIRTUAL Machine

Java interpreter is a program that implements the JVM. It is responsible for reading and executing the program.

To convert the byte code into machine code. We deploy the .class file on the Java Virtual Machine (JVM). The JVM converts that code into machine code using the Java interpreter. The JVM uses the interpreter at runtime, after that it execute the code on the host machine.

Java Libraries in JDK 1.3

Java package is a collection of various classes. Each class contains different functions. When you want to use a specific function of a class within your program, then the package containing the function needs to be included in your program.

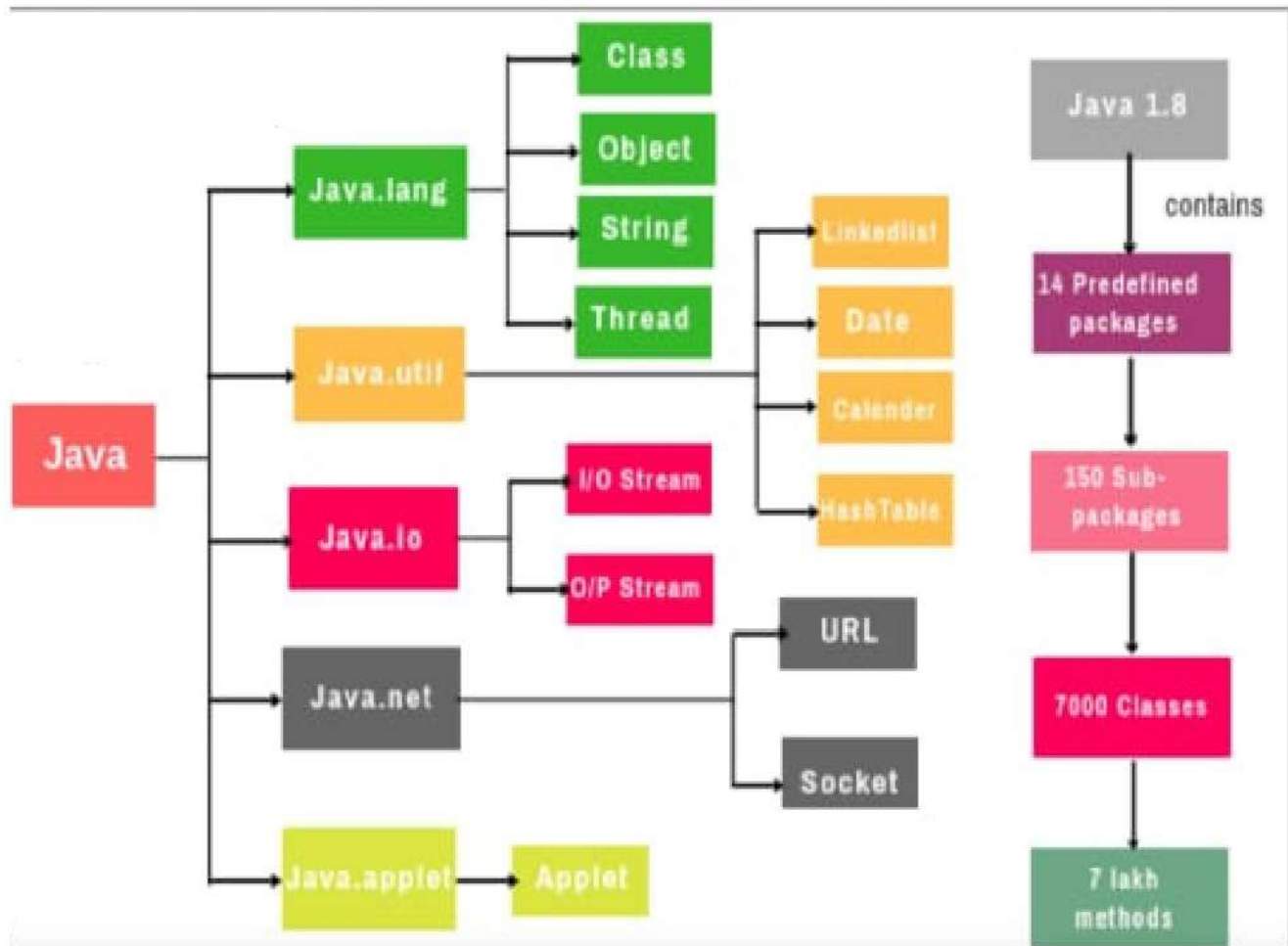
The package can be included by using program keyword 'import'. Syntax is

```
import java.io.*;  
import java.util.*;
```


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Java Reserved WORDS

Java reserved words or the keywords are the words which carry special meaning to the System compiler. Such words are used for writing a java statements and cannot be used for naming a variable in the program. Some are:



Different types of Java programming:

Basically two different platforms for writing java programs:

- * Java Application
- * Java Applet

Java Application (stand alone program) is developed by the users, that run, stand alone in a server or client. Java application have complete access to all the resources in the computer as a development technology for 'Stand Alone' desktop application.

Java Applets (Internet Applets) is a program written in the java programming language that can be include in HTML page and when you use a java technology-enabled browser to view a page that contain applet. It was first introduced in 1995.