What is Java?

Java is a **programming language** and a **platform**. Java is a high level, robust, object-oriented and secure programming language.

Java was developed by *Sun Microsystems* (which is now the subsidiary of Oracle) in the year 1995. *James Gosling* is known as the father of Java. Before Java, its name was *Oak*. Since Oak was already a registered company, so James Gosling and his team changed the name from Oak to Java.

Platform: Any hardware or software environment in which a program runs, is known as a platform. Since Java has a runtime environment (JRE) and API, it is called a platform.

Java Example

Let's have a quick look at Java programming example. A detailed description of Hello Java example is available in next page.

Simple.java

```
class Simple{
public static void main(String args[]){
System.out.println("Hello Java");
}
}
```

Application

Test it Now

According to Sun, 3 billion devices run Java. There are many devices where Java is currently used. Some of them are as follows:

- 1. Desktop Applications such as acrobat reader, media player, antivirus, etc.
- 2. Web Applications such as irctc.co.in, javatpoint.com, etc.
- 3. Enterprise Applications such as banking applications.
- 4. Mobile
- 5. Embedded System

- 6. Smart Card
- 7. Robotics
- 8. Games, etc.

Types of Java Applications

There are mainly 4 types of applications that can be created using Java programming:

1) Standalone Application

Standalone applications are also known as desktop applications or window-based applications. These are traditional software that we need to install on every machine. Examples of standalone application are Media player, antivirus, etc. AWT and Swing are used in Java for creating standalone applications.

2) Web Application

An application that runs on the server side and creates a dynamic page is called a web application. Currently, <u>Servlet</u>, <u>JSP</u>, <u>Struts</u>, <u>Spring</u>, <u>Hibernate</u>, <u>JSF</u>, etc. technologies are used for creating web applications in Java.

3) Enterprise Application

An application that is distributed in nature, such as banking applications, etc. is called an enterprise application. It has advantages like high-level security, load balancing, and clustering. In Java, <u>EJB</u> is used for creating enterprise applications.

4) Mobile Application

An application which is created for mobile devices is called a mobile application. Currently, Android and Java ME are used for creating mobile applications.