

# Java Programming

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# Course Objective


- Explain the Java programming environment
- Describe the concepts of programming elements using Java and object-oriented
- programming concepts
- Apply the exception handling and input/output in Java programming
- Apply the event handling, GUI programming using swing, and Java database connectivity

# Unit 1: Introduction to Java

- Java Programming Platform
- The Java “White Paper” Buzzwords
- A Short History of Java
- Writing Simple Java Programs

# Learning Outcome (Unit 1)

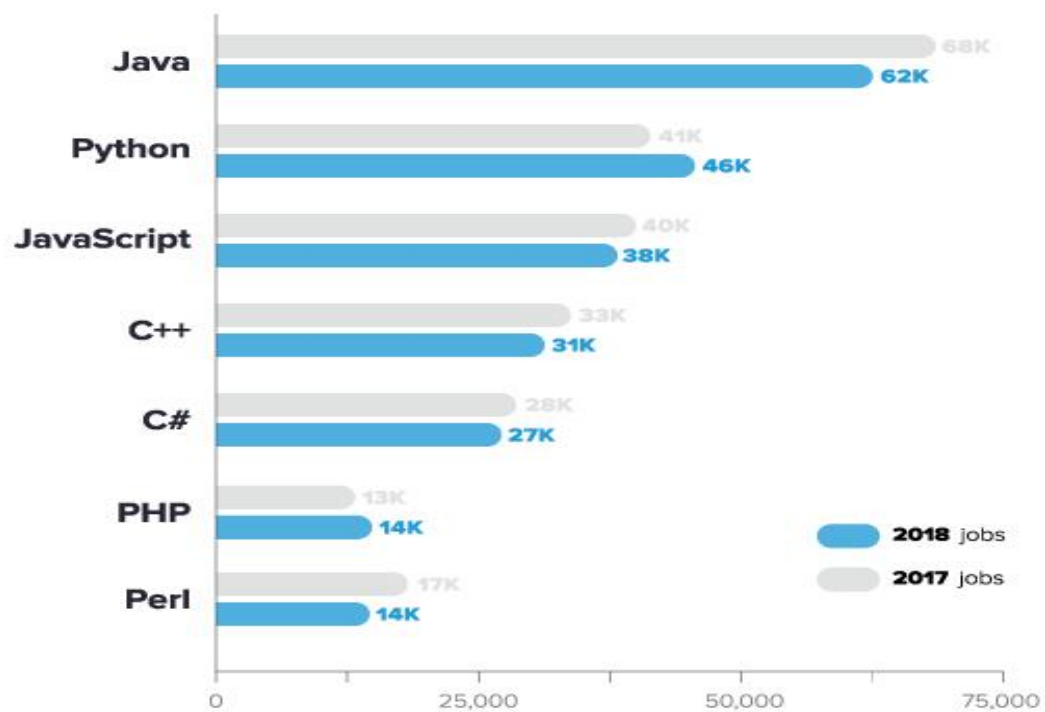
- Develop understanding on java and its programming environment
- Ability to explain characteristics of java
- Develop understanding about program execution in java
- Ability to set up the environment for programming
- Ability to write and execute simple java program



Why learn Java?

## Job postings containing top languages

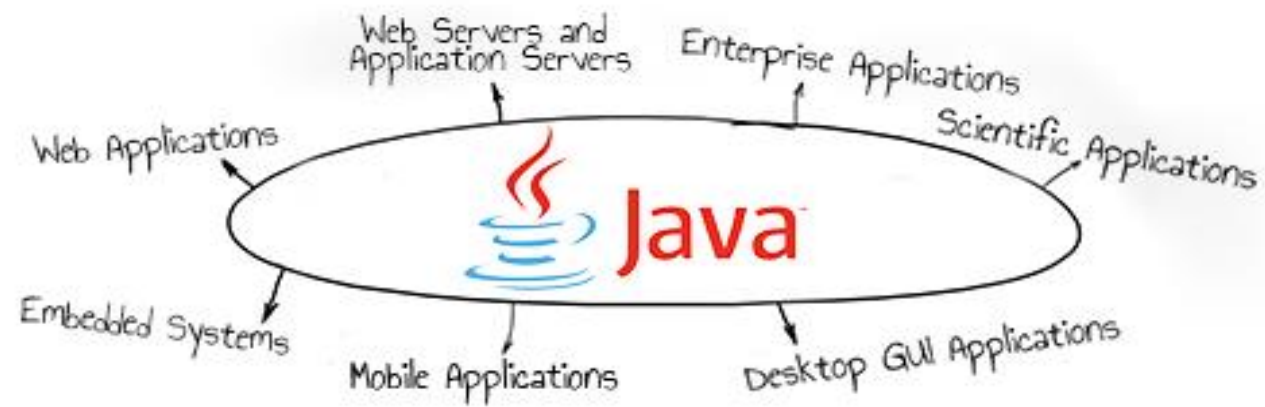
Indeed.com - November, 17th 2017





The background is a dark blue gradient. On the left side, there are several bright, curved light streaks that fan out from the bottom left towards the top left, creating a sense of motion or energy. The rest of the background is a solid, dark blue.

Is it Just because of demand?





# Let's get Started

- “Most Popular” language
- Runs on a “Virtual Machine” (JVM) – runs everywhere
- Object oriented

# Java Buzzwords

- Simple
- Secure
- Portable
- Object Oriented
  - Encapsulation, Inheritance, Polymorphism
- Robust
- Multithreaded
- Architecture Neutral

# Java Buzzwords

- High Performance
- Distributed
- Dynamic

# History

- James Gosling and Sun Microsystems
- Oak
- Java, May 20, 1995, Sun World
- HotJava
  - The first Java-enabled Web browser
- JDK Evolutions



Before you Begin

- Install Java Software Development Kit
  - <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
- Set the class path
  - <https://docs.oracle.com/javase/tutorial/essential/environment/paths.html>
- And an Editor or an IDE



# Writing Simple Java Program

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

O/p:

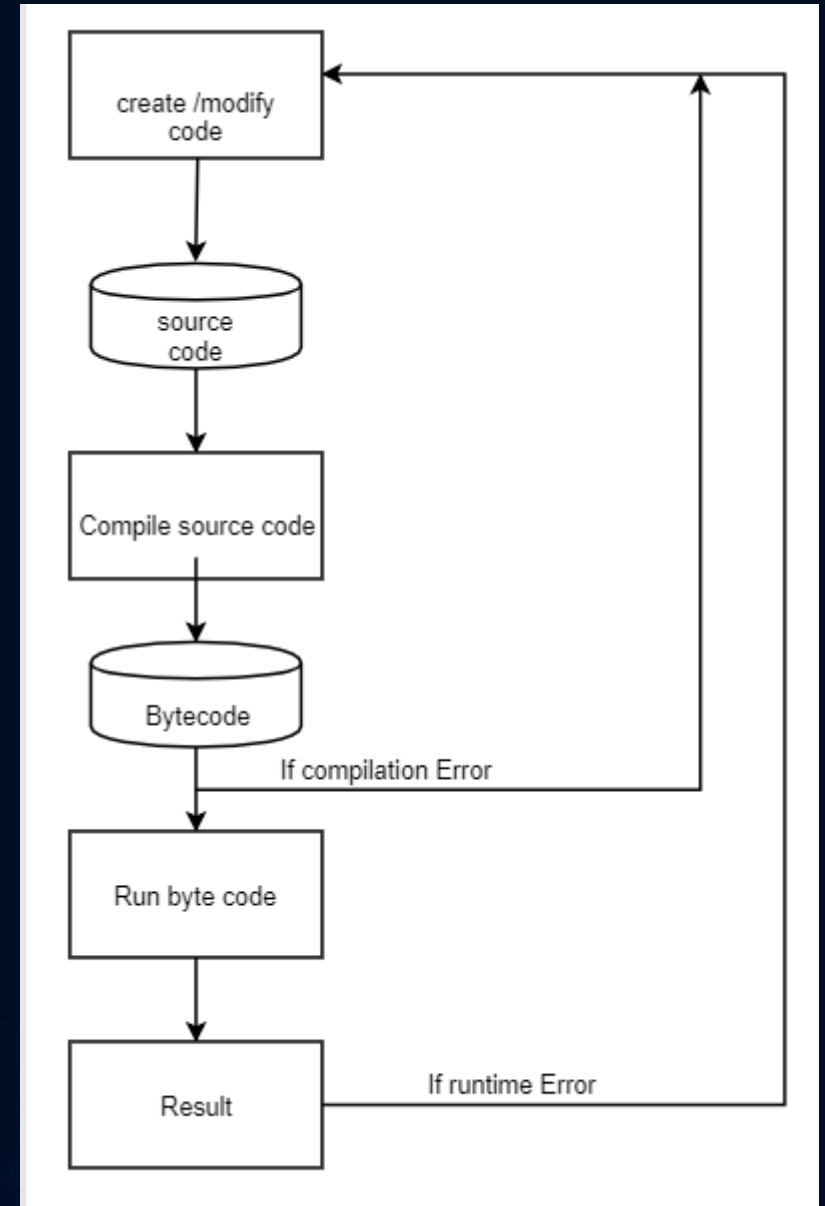
Hello

# Writing Simple Java Program

```
class ClassName{  
    public static void main(String [] arguments){  
        STATEMENTS  
    }  
}
```

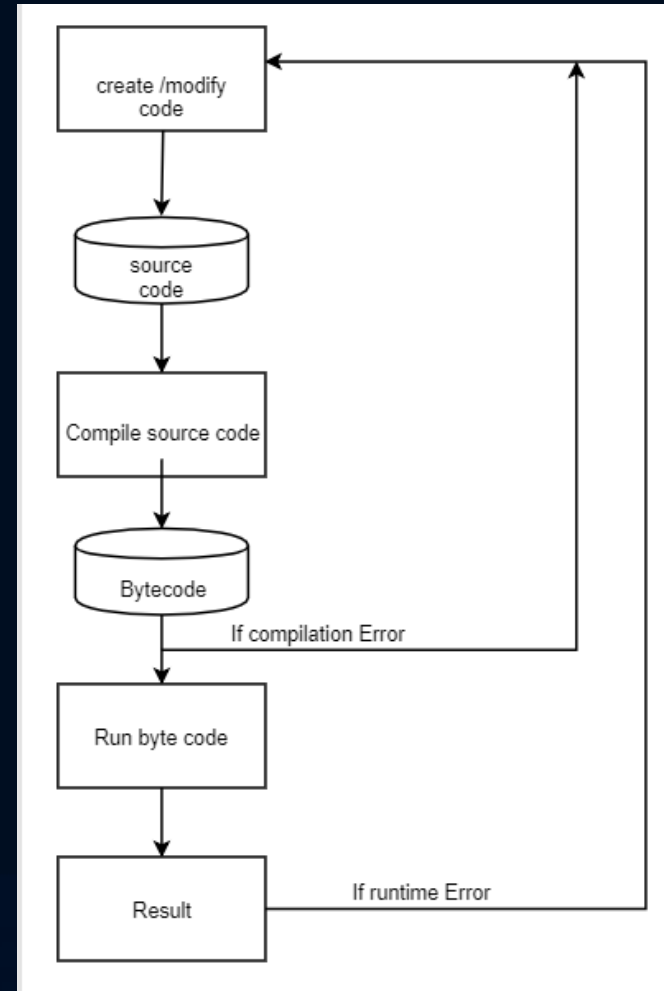
# Compiling Java Program

- In Command Line
  - `javac Class_Name.java`



# Running Java Program

- In Command Line
  - `java Class_Name`



# Suggested Readings

- The complete Reference Java 7 by Hebert Schildt (P 6 –P23)
- <https://docs.oracle.com/javase/tutorial/essential/environment/paths.html>



# References

- The complete Reference Java 7 by Hebert Schildt
- Java 8 in Action by Dreamtech press.
- Mit Opencourseware
- <https://docs.oracle.com/javase/tutorial/?sess=16e492aba13789410194of7f88d9f51f>
- <https://images.google.com> for Images