# What is an IDE?

- IDE stands for Integrated Development Er
- Software for building applications that co
  tools into a single GUI
- It consists of:
  - Source code editor to write code in different language
  - Debugging tools to inspect code
  - Automated build processes for languages including co
  - Syntax Highlighting
  - Autocomplete


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# Exploring IntellijIdea

- Creating a New Project
- Basics
  - Navigation Pane – To navigate different files in project
  - .idea – Holds project metadata
  - Source Folder – Contains program code
  - External Library – Contains jars and libraries
- Install Plugins
- Change Appearance

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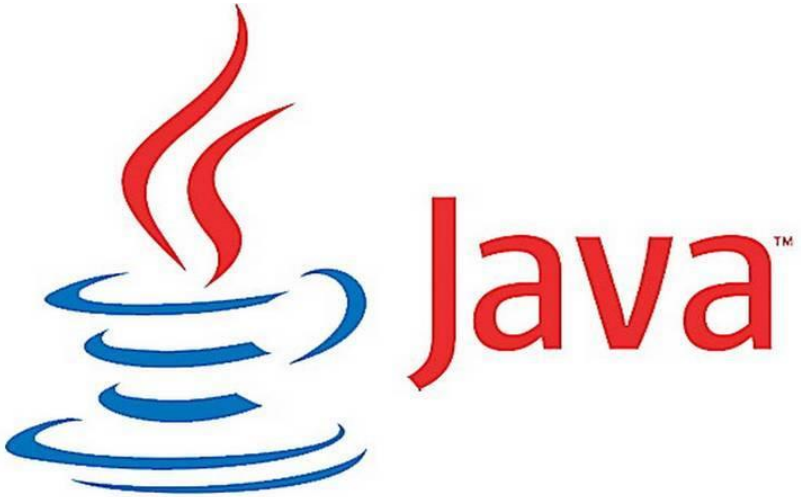
# What is Java?

- Java is a Programming Language
- Programming language is a set of instructions for specific tasks.
- We can create different types of applications with
  - ✓WEB APPLICATIONS
  - ✓ DESKTOP APPLICATIONS
  - ✓ WEB SERVERS
  - ✓ EMBEDDED SYSTEMS
  - ✓ MOBILE APPLICATIONS

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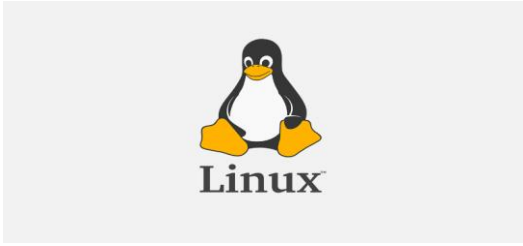
# What is Java?

- Java is a platform independent language
- Java is a strongly typed language and case sensitive
- We can run Java programs on all operating systems:
  - ✓Windows
  - ✓Mac OS
  - ✓Linux



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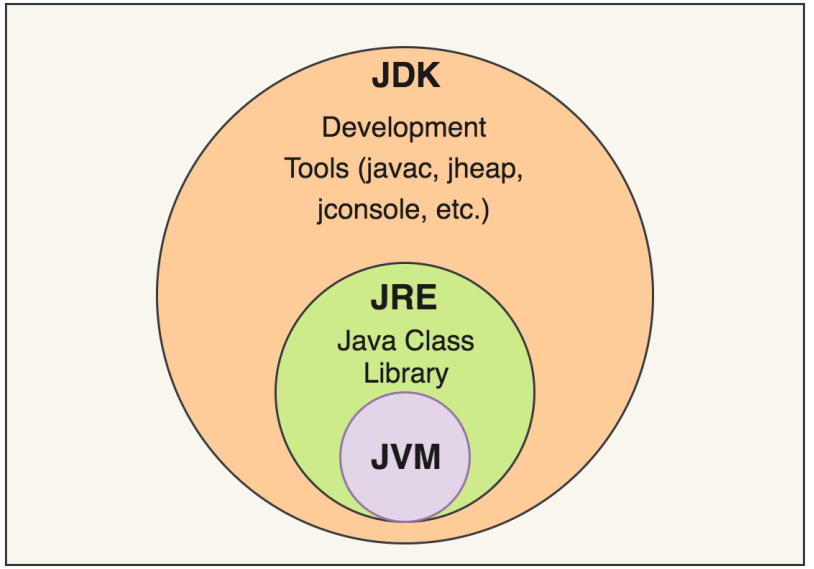
# Java Components

- We need JDK to start development in Java
- JDK stands for Java Development Kit
- JDK allows us to create Java Programs
- JDK also contains JRE (Java Runtime Environment)
- JRE enables us to run our Java programs
- JVM (Java Virtual Machine) is a subset of JRE. It is a run-time engine which runs the java applications. It calls the main method present in a java program.

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# Data Types In Java

- Data is information which is stored and processed by a computer
- Pieces of Data:
  - Name
  - Age
  - Gender
  - Percentage of marks

  Pieces of data can be represented in code using data types


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# Data Types In Java

Java classifies different pieces of data with data type based on their value.

Primitive Data Types:

- boolean – true or false value ( for example, light is on or off)
- int – whole number ( for example, your age)
- double – decimal number (for example, percentage of marks)
- char – single letter (for example, initials or gender)

Reference Data Types (Non-Primitive):

- class, interface, String, Arrays

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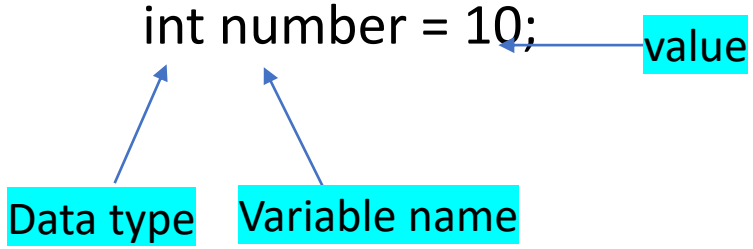
# Variables In Java

Variables are used to store data values

To create a variable, we have to specify the data type




double marks = 99.99;

boolean value = true;

Types of variables:

Local variables – Can be used in the same method where it is declared

Static variables – Can be used without creating an object of the class where it is declared

Instance variables – Can be used by creating an object of the class where it is declared

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# Variables In Java

Let’s write Java code to represent a car

Program will have following data:

Name of the car - String

Car price - int

Car weight - double

Car Logo first initial - char

Whether the car is available in India - boolean

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