

Fundamentals of Java Assignment 2 :

1. Statically typed languages :

A language is statically typed if the type of a variable is known at compile time.

Examples: C, C++, Java, Rust, Go, Scala.

Dynamically typed languages :

A language is dynamically typed if the type is associated with run-time values, and not named variables/fields/etc.

Examples: Perl, Ruby, Python, PHP, JavaScript, Erlang

2. Variable in Java is a data container that stores the data values during Java program execution.
3. "type variableName = value" Where type is one of Java's types (such as int or String), and variableName is the name of the variable (such as a or name). The equal sign is used to assign values to the variable.
4. In Java, the primitive data types are the predefined data types of Java. They specify the size and type of any standard values. Java has 8 primitive data types namely byte, short, int, long, float, double, char and boolean.
5. All Java variables must be identified with unique names. These unique names are called identifiers. Identifiers can be short names (like x and y) or more descriptive names (age, sum, totalVolume).
6. Arithmetic Operators.
Assignment Operators.
Logical Operators.
Relational Operators.
Unary Operators.
Bitwise Operators.
Ternary Operators.
Shift Operators.
7. The increment operator ++ increases the value of a variable by 1. Similarly, the decrement operator -- decreases the value of a variable by 1.

Example :

```
a = 5
++a;
// a becomes 6
a++;
// a becomes 7
--a;
```

```
// a becomes 6  
a--;  
// a becomes 5.
```