# **JAVA Variables And Data Type**

**Q1. What is statically typed and dynamically typed programming language?**

Ans. **Statically typed :-** A programming language means where we have to declare the data type even before the compilation of programme known as statically typed programming language.

Example :- C , C++ , Java all are statically typed language.

Int age = 18;

String name = “Rahul”;

Float temp = 98.3\*;

Where we have to declare the data type even before compilation.

**Dynamically typed** : In this the memory for the variable is provided at the time of execution . In this we don’t have to declare the data type as compare to statically type before compilation.

Example:- Python , Java Script , PHP all are dynamically typed language.

age = 18;

name = Rahul ;

temp = 98.3\*

**Q2. What is the variable in java ?**

Ans. Variable in java are :-

* A variable is the memory allocated reserved area , it may be thought of as the name of a memory location.
* While the java programme running value held in a container.
* To identify the storage location , each variable needs to specify through a special name.
* A data type is assigned to a variable.

**Q3. How to assign the value to a variable?**

Ans. Some points needs to know when assign a variable :-

* A variable should not be reserved word or not a any keyword of java.

Example :- int marks = 90 ;

Int float = 90 ; ( Because float is keyword of java , which have fixed meaning)

* Apart from **\_** and **$** no other special character is allowed for assigning variable.
* A variable should not be start with number.

Example :- int num1 = 20;

Int 1num = 20;

* No white space allowed between variable name also camel case is used.

Example :- string nameOfStudent = “Abc”;

string name of student = “Abc”;

**Q4. What are primitive data types in java ?**

Ans. The data types which cannot be customised according to developer used which have its fixed meaning and work are.

Total 8 types of Primitive data types are :-

* Byte
* Short
* Int
* Long
* Float
* Double
* Boolean
* Char

**Q5. What are identifiers in java ?**

Ans. An identifiers is a name given to a package, class , interface , method or variable.

All identifiers must have different names.

Example :- class Student;

Int age; All are identifiers

void school;

**Q6. List the operators in java ?**

Ans. Operators in java are classified into 6 category:-

* Arithmetic Operators
* Relational Operators
* Logical Operators
* Assignment Operators
* Unary Operators
* Bitwise Operators

**Q7. Explain about increment and decrement operators and give an example?**

Ans. The operators are basically used for reduce the complexity , length of a code and become easy for understand as well.

Increment means to add (+) value from a code.

Decrement means to sub (-) value from a code.

Increment operators example :-

**Int a = 5; int a = 5;**

If we want to increase the value of “a” by 1 then **a = a+1; a = a – 1 (for decrement)**

So in place of above equation we can write as **a++ ;** **a -- ;**

The increment & decrement operator has two types:

* Post increment (variable name **++**)
* Pre increment ( **++** variable name)
* Post decrement (variable name **--**)
* Pre decrement ( **--** variable name)

When we using these increment or decrement pre – post and if we store the variable value into same variable we can use any of this increment/decrement type result will not vary, but if we store the variable value into other variable then the result of both variable will be different.

Example :- class Operator{

public static void main (String[]args){

int a = 5;

Int b ;

b = a++ + ++a + a-- + --a + a++ + ++a;

system.out.println(a);

system.out.println(b);

}

}

Ans . The value of a will be :- 7

The value of b will be :- 36