Java Variables and Data types

Assignment Questions

Assignment:

1. What is statically typed and dynamically typed programming language?

Ans → In statically typed programming languages, type checking occurs at[compile time](https://www.baeldung.com/cs/compile-load-execution-time#compile-time). At compile time, source code in a specific programming language is converted to a machine-readable format. This means that before source code is compiled, the type associated with each and every single variable must be known.

Some common examples of programming languages that belong to this category are Java, Haskell, C, C++, C#, Scala, Kotlin, Fortran, Go, Pascal, and Swift.

In dynamically typed languages, type checking takes place at [runtime](https://www.baeldung.com/cs/runtime-vs-compile-time#runtime) or execution time. This means that variables are checked against types only when the program is executing. Some examples of programming languages that belong to this category are Python, JavaScript, Lisp, PHP, Ruby, Perl, Lua, and Tcl.

1. What is the variable in java?

Ans → A variable is a container that holds the value while the [Java program](https://www.javatpoint.com/simple-program-of-java) is executed. A variable is assigned with a data type.

The variable is a name of a memory location. There are three types of variables in java: local, instance, and static.

1. How to assign a value To Variable?

Ans → class Test {

public static void main(String args[]){

int k; // variable declaration

k = 10; // value assigned to the variable ‘k’

System.out.println (k);

}

}

1. What are primitive data types in java?

Ans → Primitive data types in Java are predefined by the Java language and named as the reserved keywords. A primitive data type does not share a state with other primitive values. [Java programming language](https://www.javatpoint.com/java-tutorial) supports the following eight primitive data types.

1. What are the Identifiers in java?

Ans → Identifiers in Java are symbolic names used for identification. They can be a class name, variable name, method name, package name, constant name, and more. However, In [Java](https://www.javatpoint.com/java-tutorial), There are some reserved words that can not be used as an identifier.

1. List the Operators in java.

Ans → Unary Operator, Arithmetic Operator, Shift Operator, Relational Operator, Bitwise Operator, Logical Operator, Ternary Operator, and Assignment Operator.

1. Explain about increment and decrement operator and give an example.

Ans → Increment Operators are the unary operators used to increment or add 1 to the operand value. The Increment operand is denoted by the double plus symbol (++). It has two types, Pre Increment and Post Increment Operators.

Example:

class Increment {

public static void main(String[] args) {

int x = 10;

int y = x++;

System.out.println("y value is: " + y);

}

}

Decrement Operator is the unary operator, which is used to decrease the original value of the operand by 1. The decrement operator is represented as the double minus symbol (--). It has two types, Pre Decrement, and Post Decrement operators.

Example:

class Decrement {

public static void main(String[] args) {

int x = 10;

int y = x--;

System.out.println("y value is: " + y);

}

}