SNSCOLLEGEOFTECHNOLOGY

(AN AUTONOMOUS INSTITUTION)

COIMBATORE–35

DEPARTMENTOFCOMPUTERSIENCEANDENGINEERING

UNITI-INTRODUCTIONTOOOP

ObjectOrientedProgrammingconcepts Evolution
of java
Java Architecture
DataTypes
VariablesandOperators Environment
setup
CommandLineArguments,Comments

DataTypes

Java is statically typed and also a strongly typed language because, in Java, each type of data (such as integer, character, hexadecimal, packed decimal, and so forth) is predefined as part of the programming language and all constants or variables defined for a given program must be described with one of the Java data types.

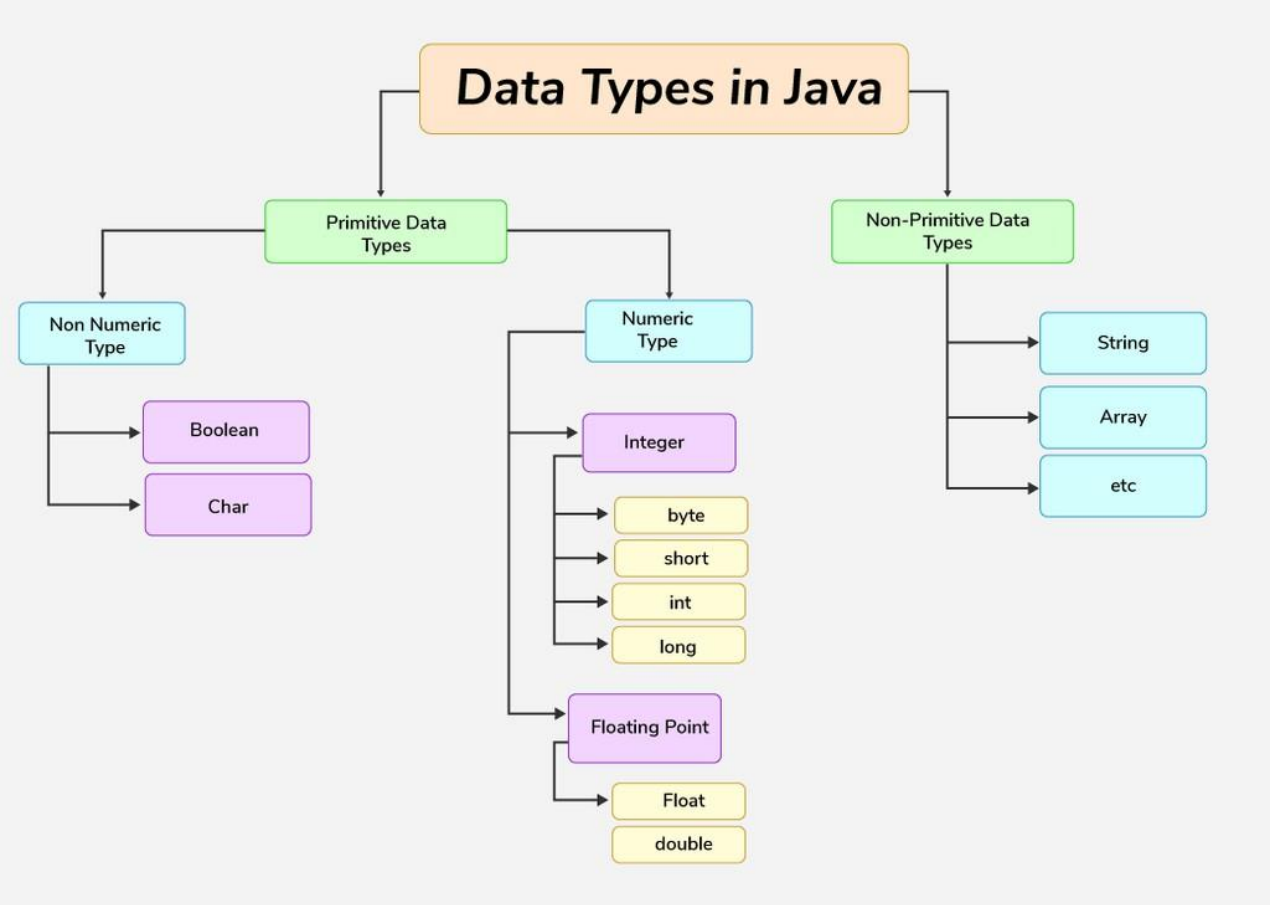
DataTypesinJava

Data types in Java are of different sizes and values that can be stored in the variable that is made as per convenience and circumstances to cover up all test cases.

Javahastwocategoriesinwhichdatatypesaresegregated

Primitive Data Type: such as boolean, char, int, short, byte, long, float, and double

Non-PrimitiveDataTypeorObjectDatatype:suchasString,Array,etc.



PrimitiveDataTypesinJava

Primitive dataare only single values and have no special capabilities.There are 8 primitive data types. They are depicted below in tabular format below as follows:

Type	Description	Default	Size	Example Literals	Rangeofvalues
boolean	trueorfalse	false	8 bits	true,false	true,false
byte	twos-complement integer	0	8 bits	(none)	-128to127
char	Unicode character	\u0000	16 bits	‘a’, ‘\u0041’, ‘\101’,‘\\’,‘\’,	characters representation of ASCII values

Type	Description	Default	Size	Example Literals	Rangeofvalues
				‘\n’,‘β’	0to255
short	twos-complement integer	0	16 bits	(none)	-32,768to32,767
int	twos-complement intger	0	32 bits	-2,-1,0,1,2	-2,147,483,648 to 2,147,483,647
long	twos-complement integer	0	64 bits	-2L,-1L,0L,1L,2L	-9,223,372,036,854,775,808 to 9,223,372,036,854,775,807
float	IEEE754 floatingpoint	0.0	32 bits	1.23e100f,-1.23e-100f, .3f,3.14F	upto7decimaldigits
double	IEEE754 floatingpoint	0.0	64 bits	1.23456e300d ,-123456e-300d,1e1d	upto16decima

Non-PrimitiveDataTypeorReferenceData Types

The**Reference Data Types**will contain a memory address of variable values because the reference types won’t store the variable value directly in memory. They are strings, objects, arrays, etc.

Additionalreferencelink:

https://www.geeksforgeeks.org/data-types-in-java/