

# Datatype

**Date: 14<sup>th</sup> Feb 2024**

Datatype are used to represent type of data or information which we are going to use in our java program.

In java programming it is mandatory to declare datatype before declaration of variable.

In java datatypes are classified into two types:

1. Primitive datatype.
2. non-Primitive datatype.

## 1.Primitive datatype:

There are 8 type of primitive datatypes(byte,short,int,long,float,double,char,boolean).

All the primitive datatypes are keywords.

\* Memory size of primitive datatype is fix.

The types of primitive datatype are:

**Note:-** keyword starts with lower case

Primitive datatype starts with lower case

**syntax:** datatype VariableName;

### 1.(Numeric + Non-decimal):-

Ex: 80,85,10,5, 10000 ..etc

	Data Type	Size	range
1.	byte	1 byte	-128 to 127
2.	short	2 bytes	
3.	int(imp)	4 bytes	
4.	long	8 bytes	l

1GB=1024MB

1MB=1024KB

1KB=1024Byte

1Byte= 8bit

**2. (Numeric + decimal):-** Ex: 22.5,22.8,6.4....

5. float(imp)            4 byte            f

6. double                8 byte            d

**3. Single Character: -** Ex: A,B,X,Z.

7. char                    2 byte

**4. Conditional:-** Ex: true,false.

8. boolean                1 bit

---

## 2. non-Primitive datatype:

There are 3 types of non primitive datatypes .

All the Non primitive datatypes are identifiers.

\*Memory size of non primitive datatype is not defined or not fix.

**Note:** Identifier starts with capital letter.

Non-primitive datatype starts with capital letter.

e.g. String, ClassName, InterfaceName