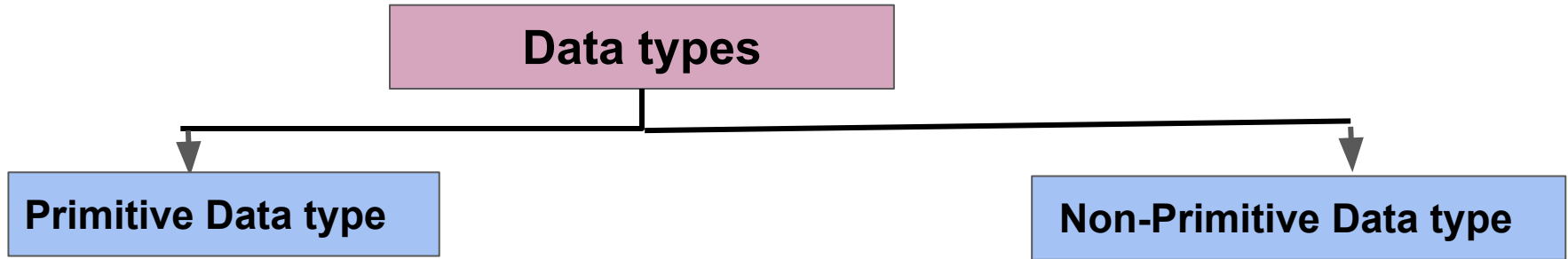


# DATA TYPES

- ❖ Data type refers to the type of data, a memory location can hold.
- ❖ Data type are used to create variables of specific type.

## Classification of data type



# Primitive Data type

```
graph TD; A[Primitive Data type] --> B[Numeric Types]; A --> C[Non-Numeric Types]; B --> D[Integers]; B --> E[Floating Numbers]; C --> F[Characters]; C --> G[Boolean];
```

## Numeric Types

- Integers
- Floating Numbers

## Non-Numeric Types

- Characters
- Boolean

# Primitive Data Types

- ❑ Primitive Data Types are the basic or fundamental types used to declare variable to store primitive value .

example:-Numbers, Boolean,Character

- ❑ All Primitive data types are Keyword in Java.

They are further classified into 2 categories:-

1. Numeric data type
2. Non-numeric data type

## 1.Numeric Data Type:-

- The numeric data types are used to declare variables that can store numbers.
- Numeric data types are further classified as below:-
  - Integer Type: A integer type variable contains an integer literal(whole number).

Eg. byte b=23;

short s=55,

int n= 786;

long b=5678;

- Floating values: A floating type variable contains floating point data(fractional number).

Eg. float g=0.67;

double x=67.9088;

## 2. Non-Numeric Data Types:-

- The non-numeric data types are used to declare a character or boolean values.
- Non Numeric Data types are further classified below:-
  - \* Character type:- A variable is declared to be a character type when it holds a character literals.

Eg. `char c='s';`

- \* Boolean Type:- Boolean literals are true or false.

Eg. `boolean b=false;`

Primitive Values		Primitive Data Types	Default Values	Size
N U M E R I C	Integers (whole numbers) -ve to 0 to+ve	byte	0	1 byte
		short	0	2 byte
		int	0	4 byte
		long	0 l / L	8 byte
	Floating Values	float	0.0 f / F	4 byte
		double	0.0 d / D	8 byte
Non Numeric	Character	char	/u0000	2 byte
	Boolean	boolean	false	1 bit

## Non-primitive Data Types

```
graph TD; A[Non-primitive Data Types] --> B[Class]; A --> C[Arrays]; A --> D[Interface];
```

**Class**

**Arrays**

**Interface**

## NON PRIMITIVE DATA TYPE

- The data type which is used to create a non-primitive variable to store the reference is known as non-primitive data type.
- Every class in Java is a non-primitive data type.