

# Java Datatypes

```
graph TD; A[Java Datatypes] --> B[Primitive Data types]; A --> C[Non Primitive Data types]; B --> D[Boolean]; B --> E[Numeric]; D --> F[ ]; E --> G[ ]; E --> H[ ]
```

## Primitive Data types

Boolean

Numeric

## Non Primitive Data types

strings  
arrays  
objects  
etc

IN THE NAME OF ALLAH

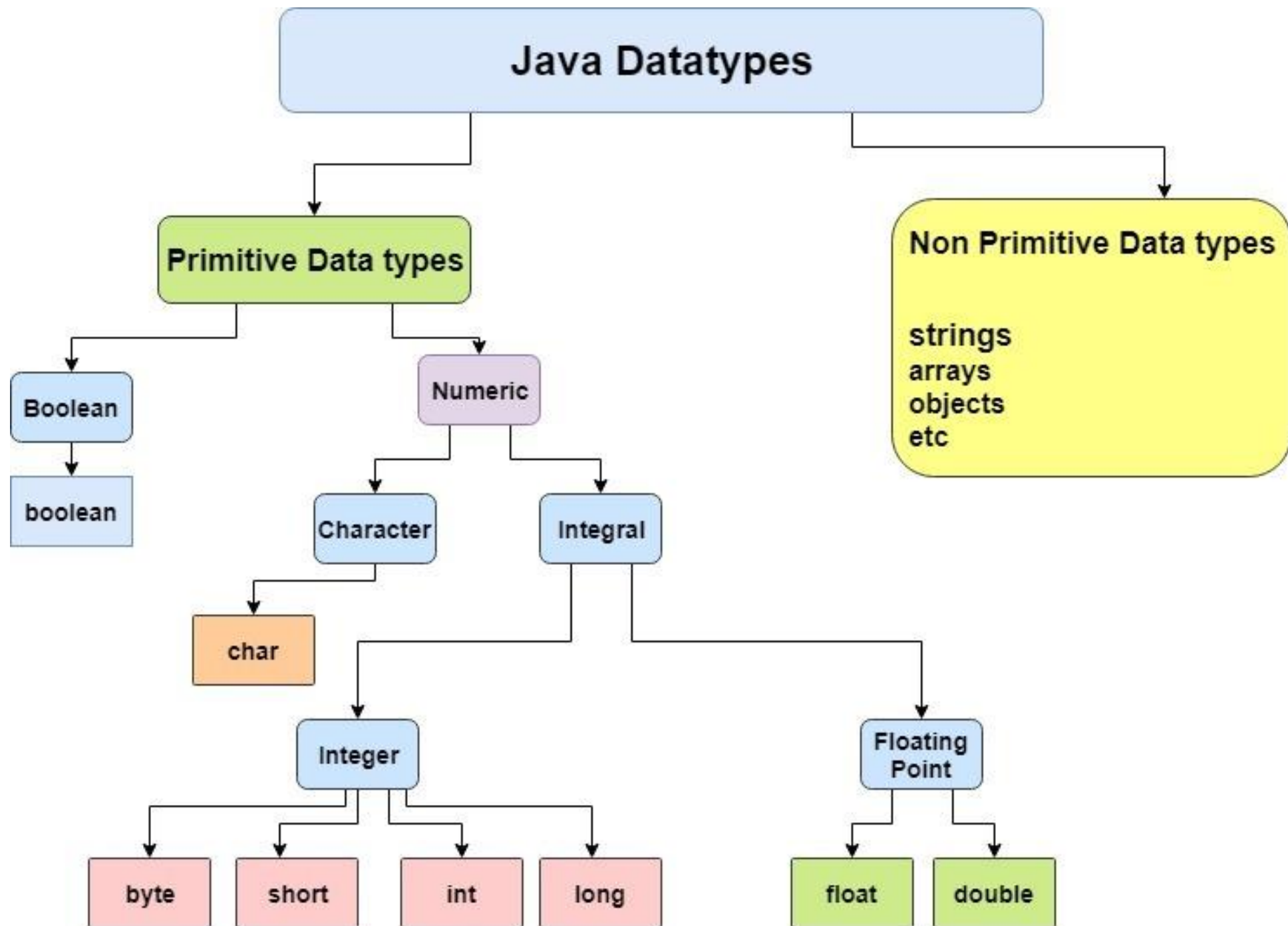
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

THE GRACIOUS, THE MERCIFUL.

# LECTURE: 2

## JAVA DATA TYPES





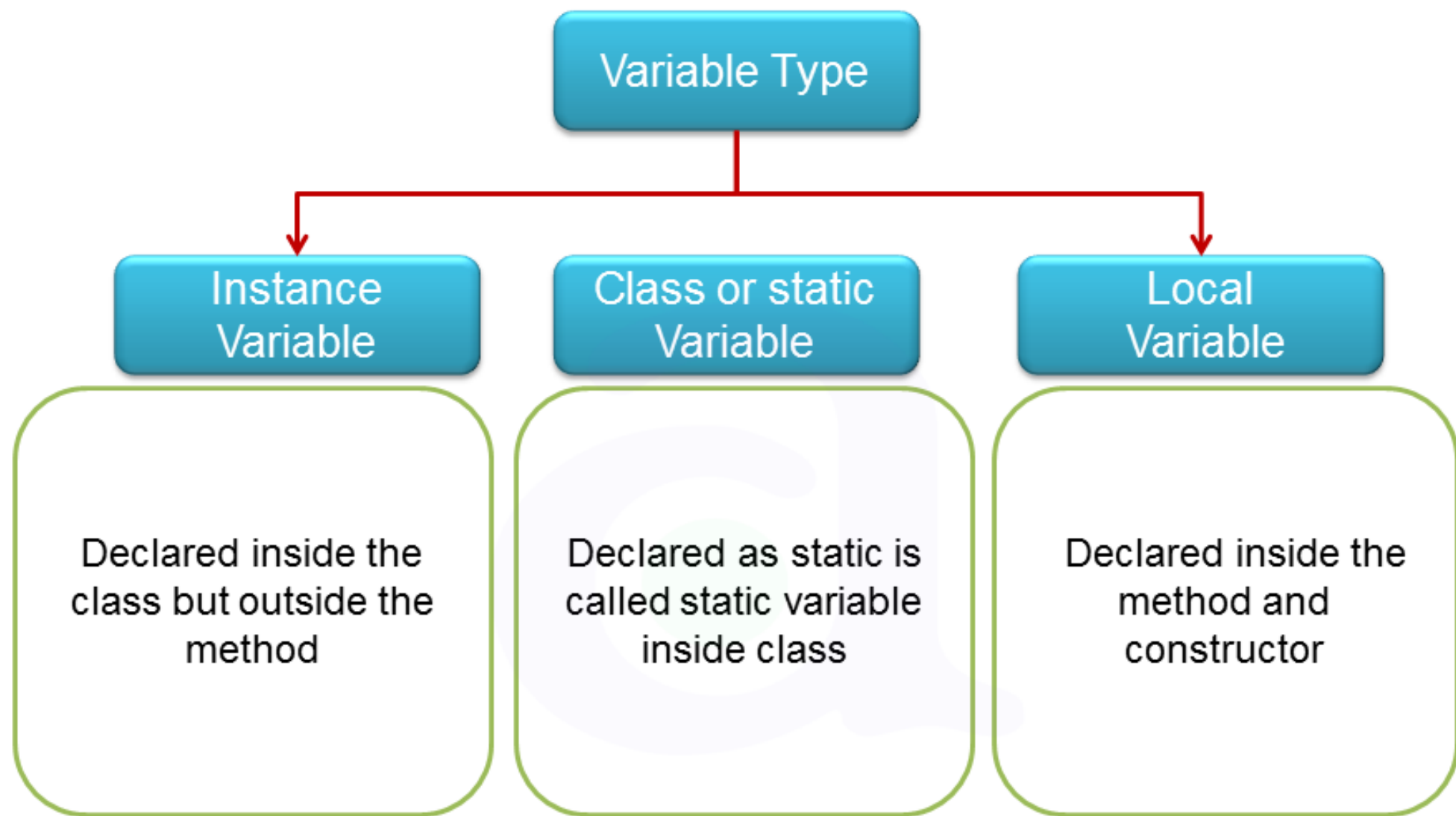
## PRIMITIVE DATA TYPE in JAVA

1 Bytes = 8 bit

Type	Contains	Default	Size	Range
byte	Signed integer	0	8 bits	-128 to 127
short	Signed integer	0	16 bits	-32768 to 32767
int	Signed integer	0	32 bits	-2147483648 to 2147483647
float	IEEE 754 floating point	0.0f	32 bits	$\pm 1.4\text{E}-45$ to $\pm 3.4028235\text{E}+38$
long	Signed integer	0L	64 bits	-9223372036854775808 to 9223372036854775807
double	IEEE 754 floating point	0.0d	64 bits	$\pm 4.9\text{E}-324$ to $\pm 1.7976931348623157\text{E}+308$
boolean	true or false	FALSE	1 bit	NA
char	Unicode character	'\u0000'	16 bits	\u0000 to \uFFFF

# WHAT IS VARIABLE?

- A variable is a container which holds the value while the JAVA program is executed.
- A variable is assigned with a Data Type.



```
a = 10;//assign
```

```
byte ajrak = 20;//declaration+assign = initialization
```

```
System.out.println("ajrak");
```

```
byte b,c,d,e,f;//multi variable
```

```
a=10;
```

```
b=20;
```

```
c=30;
```

```
System.out.println(a);
```

```
System.out.println(b);
```

```
System.out.println(c);
```

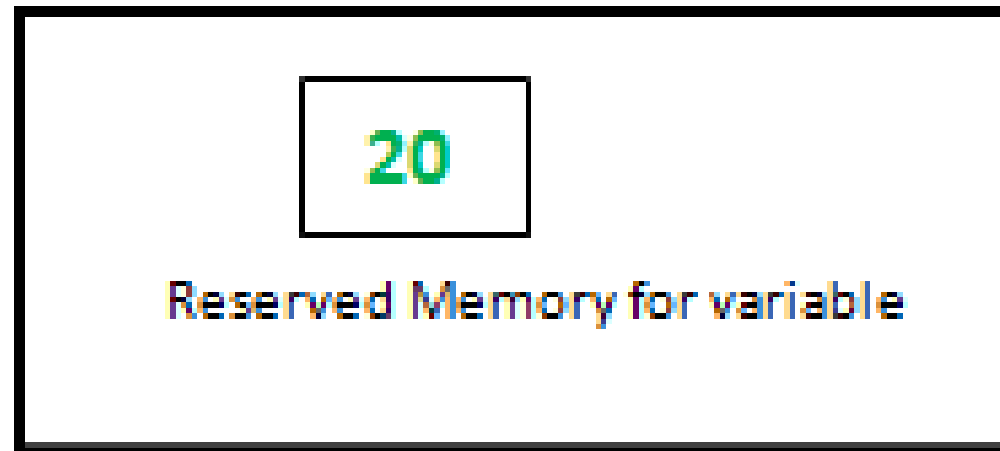
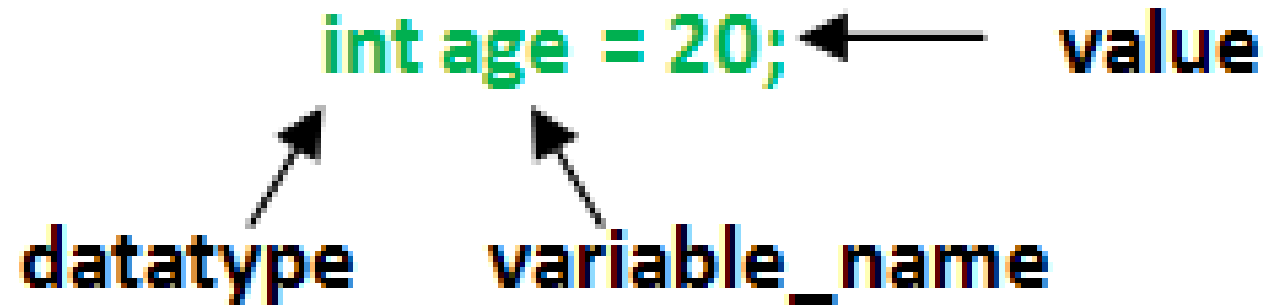
```
System.out.println(200);
```



# How to Initialize Variables?

`int age = 20;` ← **value**

**datatype**      **variable\_name**



**RAM**

# How to Execute Variables?

```
System.out.println(age);
```

You can also initialize Variable in this way

```
Int a;
```

```
a=10;
```

Multiple Variable initialize

```
int a,b,c,d;
```

```
a=20; b=14; c=24;
```

# What we have learn from this exercise?

- Data Types.
- What is Variable?
- How to initialize Variable?
- How to Execute Variable?
- Multiple Way to Initialize Variable.