

## Topic 3 :

### Lesson 1:

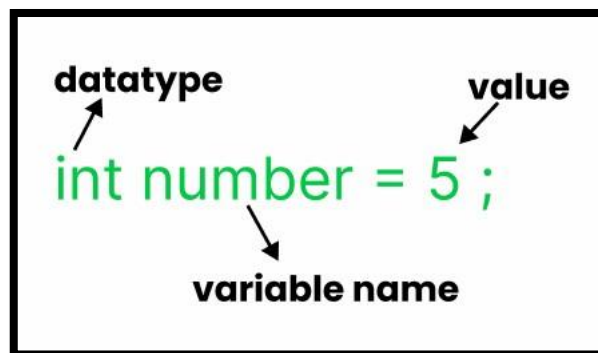
In this lesson we will learn about java variable.

**Variable** : **Variable in Java** is a data container that stores the data values during Java program execution.

- **How to initialize variables?**

While initializing a variable we need to take care of these things .

- **datatype** - Type of data that can be stored in this **variable**. (We will learn more about data types in upcoming lesson.)
- **Variable Name** – Name of variable which is given by programmer.
- **Value** – Value of variable .



## Lesson 2: Data Types

### What Is Data-Types ?

As the name suggests, data types specify the type of data that can be stored inside Variables in java.

➤ **Data types are divided into two groups:**

- *Primitive data types.*
- *Non-Primitive Data types.*

### ➤ Primitive Data Types -:

1. **Byte**
2. **short**
3. **int**
4. **long**
5. **float**
6. **double**
7. **boolean**
8. **char**

Name	Default Value	Size	Type
byte	0	1 byte	Integral Value
short	0	2 byte	Integral Value
int	0	4 byte	Integral Value
long	0	8 byte	Integral Value
float	0.0f	4 byte	Floating Point
double	0.0d	8 byte	Floating Point
char	'\u0000' (means 0 in ASCII)	2 byte	Character
boolean	false	1 bit	Boolean

### Java Primitive Data types

1. **byte Data type** – The **byte** data type can have values from **-128** to **127**.
2. **short Data type** – The **short** data type in Java can have values from **-32768** to **32767**.
3. **int Data type** – The **int** data type can have values from **-2<sup>31</sup>** to **2<sup>31</sup> -1**.
4. **long Data type** – The **long** data type can have values from **-2<sup>63</sup>** to **2<sup>63</sup> -1**.

