**Day 3**

**Datatypes in Java**

In Java there are mainly two types of data types are used.

1. **Primitive data types:** The primitive data types again contains two types:
   1. **Boolean Datatype:** This data type is used while Boolean values are used. The data type for Boolean is Boolean and its values are either True or False.

boolean one = true/false;

* 1. **Numeric Datatypes**: This datatype is used while using numeric values. This numeric datatype is again divided into two. They are:

**I) Character datatype:** It is used for handling character type data. Its keyword is char.

char letter = ‘A’; // char keyword is used for declaring character datatype and character datatype value should be always given inside single quotes.

**II)Integral datatype:** This type of datatype is used while we handle integer numeric data. It again divides into two types.

a) **Integer datatype:** This data type is used for whole numbers. It includes byte, short, int, long.

byte a = 10; //byte datatype can have values ranging from –128 to 127

short s = 200000; // short datatype can have values ranging from –32678 to 32677

int b = 100000; // Integer datatype can have values ranging from 2-31 to 232.

long l = 200000L; // While using long datatype letter ‘L’ should be added with the value to show it is a long integer datatype.

b) **Floating point:** This data type is used for handling decimal values. It includes float and double.

float f = 12.3 f; // While using float datatype letter ‘f’ should be added with the value to show it is a floating datatype.

double d = 22.3; // double datatype.

1. **Non-primitive data types:** The Non-primitive data types are predefined classes. They are also called as **Wrapper Classes**. The non-primitive data types include Classes, Interfaces, and Arrays.

String str = “Hello”; // We use String keyword for declaring strings. And string values should be given inside the double quotes.

We can perform many functions with predefined classes using string values. Such as finding the length of the string, converting to lowercase, uppercase etc. as shown below.

str.lenght();

str.lowercase();