

```

class DataTypes{
    public static void main(String[] args){
        // 1. Primitive 2. Non-Primitive
        // 8 data types in primitive

        // byte short int long {whole numbers}
        // float double      {decimal numbers}
        // char                {character}
        // boolean             {true/false}

        // Each data type has its own size
        // byte                1 byte                8 bits      Byte
        // short               2 bytes               16 bits     Short
        // int                 4 bytes               32 bits
        Integer number = 10; number.
        // long               8 bytes               64 bits     Long
        // float              4 bytes               32 bits     Float
        // double             8 bytes               64 bits
        Double
        // char              1 byte                8 bits
        Character
        // boolean           1 bit{1 byte}         8 bits
        Boolean

        // range =  $-2^{(n-1)}$  -->  $[2^{(n-1)}]-1$ 

        byte num1 = 10;
        short num2 = 20;
        int num3 = 30;
        long num4 = 40;
        float num5 = 50.0f;
        double num6 = 60.0;
        char char1 = 'H';
        boolean result = true;

        System.out.println(num1);

        // Non-Primitive --> Array, String, Class

        int value1 = 10;
        int value2 = 20;
        int value3 = 30;
    }
}

```

```
        .
        .
        .
        int value100 = 1000;

        int[] values = new int[100];                                //
size is fixed
        Array<Integer> valuesArray = new Array<Integer>(); // size
is not fixed
    }
}
```