



# Day 7 (Fundamentals of Java)

Dt - 26 01. 2023 - 27.01.2023



## List of Concepts Involved

- Statically typed vs Dynamically types PL
- Variables & Data Types
- Type Castin & Truncation
- Naming Convention for variables in java
- Identifiers & Naming Convention
- Introduction of Operators in Java
- Incremention & Decrementation

## Give Examples of every primitive datatypes

Sure, here are examples of each data type in Java:

1. byte: used to store small integers from -128 to 127

```
javaCopy code
byte age = 20;
```

2. short: used to store small integers from -32,768 to 32,767

```
javaCopy code
short population = 30000;
```

3. int: used to store integers from -2,147,483,648 to 2,147,483,647

```
javaCopy code
int count = 100000;
```

4. long: used to store larger integers from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807

```
javaCopy code
long distance = 100000000000L;
```

5. float: used to store decimal numbers with 6-7 digits of precision

```
javaCopy code
float height = 1.75f;
```

6. double: used to store decimal numbers with 15-16 digits of precision

```
javaCopy code
double weight = 68.5;
```

7. char: used to store a single character such as 'a', 'A', '2', or '\$'

```
javaCopy code
char initial = 'J';
```

8. boolean: used to store true or false values

```
javaCopy code
boolean isStudent = true;
```

Note that in the examples above, the variable name and value are just examples and can be replaced with other appropriate names and values.

## Give Examples of every non - Primitive datatypes

Java has two categories of data types:

1. **Primitive Data Types:** There are eight primitive data types in Java, which are:

- byte: 8-bit integer
- short: 16-bit integer
- int: 32-bit integer
- long: 64-bit integer
- float: 32-bit floating point
- double: 64-bit floating point
- char: 16-bit Unicode character
- boolean: true/false value

1. **Reference Data Types:** These are non-primitive data types that include arrays, classes, interfaces, and enumerations. They are called reference data types because they hold a reference to an object in memory rather than the value itself. Examples of reference data types are:

```
javaCopy code
String name = "John"; // String is a reference data type
int[] nums = {1, 2, 3}; // array is a reference data t
```



## Resource

[https://s3-us-west-2.amazonaws.com/secure.notion-static.com/f280455f-8ba2-409b-a821-31ee3df42a8d/Day\\_7\\_PPT.pdf](https://s3-us-west-2.amazonaws.com/secure.notion-static.com/f280455f-8ba2-409b-a821-31ee3df42a8d/Day_7_PPT.pdf)

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