

JAVA

DAY 1

- Java Introduction
- Eclipse Configuration
- Classes, Objects, Methods and Variables
- Data types
- Operators
- Control Statements
- Array
- Constructor

Data Types

Type	Contains	Default	Size	Range
boolean	true or false	false	1 bit	NA
char	Unicode character	\u0000	16 bits	\u0000 to \uFFFF
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
long	Signed integer	0	64 bits	-9223372036854775808 to 9223372036854775807
float	IEEE 754 floating point	0.0	32 bits	$\pm 1.4\text{E-}45$ to $\pm 3.4028235\text{E}+38$
double	IEEE 754 floating point	0.0	64 bits	$\pm 4.9\text{E-}324$ to $\pm 1.7976931348623157\text{E}+308$

Classes & Object

- A Class is a template or blueprint from which objects are created.
- Object is an instance of a class.
- Object has state and behavior.
- Example and Demo

Variable

- Local Variable - A variable which is declared inside the method is called local variable.
- Instance variable - A variable which is declared inside the class but outside the method, is called instance variable . It is not declared as static.
- Examples and Demo

Operators

- **Unary** : Takes one argument. These operators appear before (prefix) its argument or after (postfix) its argument.
- **Binary** : Takes two arguments. These operators appear between its arguments.
- **Ternary** : Takes three arguments. These operators appear between its arguments. Syntax: `variable = (expression) ? value if true : value if false;`
- Different types of Operators in java

1. Assignment Operators : `=`
2. Arithmetic Operators : `- + * / % ++ --`
3. Relational Operators : `> < >= <= == !=`
4. Logical Operators : `&& || & | ! ^`
5. Conditional Operator : `?`

Control Statement

- *Important decision making statements*
- *If - else* Statement
- For loop
- While loop
- Do-while loop
- Break and Continue statement
- Demo and Example

Array

- An **array** is a type of variable that can store multiple values.
- *Array in java is a collection of similar type of values.*
- *Array index starts at 0.*
- *Syntax : **ArrayType [] ArrayName = New ArrayType [Size of an Array];***

Constructor

- Constructor helps to set initial values for field variables.
- Constructor is called on creation of an object.
- Constructor name should be same as class name.
- Constructor can be declared with parameter as well as parameter less.
- If no constructor is declared, then automatically constructor will be called virtually and default value will be assigned to the instance variable.

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Thank you for joining the
session.

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