

1. **Introduction**

The java programming language.

History of java.

The platform (JRE & JDK).

Features of java.

The way java works.

2. **Installation**

Installing java on computer.

Setting up environment variables.

Verifying java installation.

3. **Getting Started**

Writing Simple java program & understanding.

Compiling Program.

Running Program.

Java IDE's (eclipse, net Beans)

4. **Object Orientation concepts**

Class

Object

Encapsulation/Data hiding.

Abstraction

Inheritance

Polymorphism

5. **Variables**

Instance Variables

Local Variables

Class Variables / Static Variables

6. **Data Types**

Primitive Data types

Reference Data types

7. **Operators**

Arithmetic Operators

Relational Operators

Bitwise Operators

Logical Operators

Assignment Operators

8. **Flow Control**

Decision making statement

If statement

If-else statement

Switch statement

Looping statement

While statement

Do-while statement

For statement

Branching statement

Break statement

Continue statement

Return statement

9. **Exceptions**

Java Exceptions Overview

Making Custom (User Defined) Exceptions

Checked exceptions

Runtime exceptions

Errors

10. **Strings**

11. **I/O Files**

12. **Generics & Collections**

13. **Inner classes**

14. **Threads**

Overview of Thread

Life Cycle of A Thread

Creating Threads