

# Core Java and Collections



Detailed  
Course Syllabus

- **Class 1 - Introduction to Programming and Java**

- a. Why Programming?
- b. About machines
- c. Java introduction
- d. Java platform independence
- e. Advantages of java over other languages

- **Class 2 - More on Programming and Java**

- a. Data types
- b. Variables
- c. Hello world Program
- d. Binary number system
- e. How numbers are stored inside the memory
- f. How characters are stored

- **Class 3 - Conditional Statements in Java**

- a. Type casting
- b. Operators
- c. Conditional Statements
- d. Questions on conditional statements

- **Class 4 - Loops in Java**

- a. Loops
- b. Scope
- c. Loop Control Statements (break and continue)
- d. Questions on Conditional Statements and Loops

- **Class 5 - Patterns in Java**

- a. Pattern introduction
- b. Square pattern
- c. Questions on patterns
- d. Triangular patterns

- **Class 6 - Functions in Java**

- a. Introduction to functions
- b. Applications of functions
- c. Return type of functions
- d. Function overloading

- **Class 7 - Object Oriented Programming**

- a. OOPS in Java
- b. Packages in Java
- c. Classes and objects
- d. Constructors
- e. This keyword
- f. Class members
- g. Access modifiers

- **Class 8 - Static, Final and Super**

- a. Static members
- b. Final Keyword
- c. Introduction to Components of OOPs
- d. Super keyword

- **Class 9 - Java Collections I**

- a. Introduction to Collections in java
- b. Iterator Interface
- c. Collection Interface
- d. List Interface

- **Class 10 - Java Collections II**

- a. Set Interface
- b. Sorted Set Interface
- c. Queue Interface
- d. Map Interface