



GeeksforGeeks

Fundamentals of Java & Java Collections



Detailed
Course Syllabus

BASICS OF JAVA

- Introduction and Basic I/O
- Variables
- Operators and much more

OBJECT-ORIENTED PROGRAMMING IN JAVA

- Classes and Objects
- Abstraction and Encapsulation
- Access Modifiers and much more

COLLECTIONS OVERVIEW

- Introduction to Java Collections Framework
- Collections hierarchy
- Generics and much more

JAVA LAMBDA EXPRESSIONS

- Introduction to Lambda Expressions and ways to use them
- Introduction to Method References and examples
- Syntax of Lambda Expressions and much more

JAVA STREAMS

- Introduction to Streams in Java
- Various Applications of Streams
- The Stream hierarchy and methods and much more

ARRAY LIST

- Introduction to List Interface
- Using List Iterator
- Introduction to ArrayLists and much more

LINKED LIST

- Introduction and implementation of LinkedList in Java
- Problems with a video explanation and much more

STACK

- Introduction to Stack
- Implementation
- Methods and much more

QUEUE

- Introduction to Queue Interface
- Implementation and usage
- Methods and much more

DEQUE

- Introduction to Deque
- Implementation and usage
- ArrayDeque and much more

PRIORITY QUEUE

- Introduction to PriorityQueue
- Implementation and usage
- Methods and much more

HASHSET AND LINKEDHASHSET

- Introduction to HashSet
- Introduction to LinkedHashSet
- Implementation and usage and much more

TREESET

- Introduction to TreeSet
- Implementation and usage
- Methods and much more

HASHMAP AND LINKEDHASHMAP

- Introduction to HashMap
- Introduction to LinkedHashMap
- Implementation and usage and much more

TREEMAP

- Introduction to TreeMap
- Implementation and usage
- Methods and much more

STRING

- Introduction to Strings
- Introduction to StringBuilder and StringBuffer
- Implementation and usage and much more

COMPARATOR AND COMPARABLE

- Introduction to Comparable Interface
- Introduction to Comparator Interface
- Methods of Comparator Interface and Examples on it and much more

ARRAYS CLASS

- Introduction to Arrays and the Arrays Class
- Implementation and usage
- Traversal and much more

COLLECTIONS CLASS

- Introduction to Collections Class
- Methods like fill(), reverse(), binarySearch(), max(), min(), frequency() and much more

SORTING

- Introduction to sorting in Java, Arrays.sort(), Collections.sort() and much more