

# JAVA RoadMap

#### **BEGINNER TO ADVANCED....**

## Java Basics

- 1. Introduction to Java Watch here
- 2. Variables and Declaration Watch here
- 3. Variables and Updation Watch here
- 4. Arithmetic Operations Watch here
- 5. Naming Variables Watch here
- 6. User Input (Scanner Class) Watch here
- 7. Modulus Operator Watch here
- 8. Typecasting Watch here
- 9. Operator Hierarchy Watch here
- 10. Char Data Type and ASCII Values Watch here

#### **Control Structures**

- 11. Conditional Statements (Even-Odd) Watch here
- 12. Absolute Number Function Watch here
- 13. Operators Overview Watch here
- 14. Ternary Operator Watch here
- 15. Switch Statement Watch here
- 16. Loops: For Loop Basics Watch here
- 17. Break and Continue Keywords Watch here
- 18. While and Do-While Loops Watch here



#### **Functions and Methods**

- 19. Functions in Java: Syntax Watch here
- 20. Function Advantages Watch here
- 21. Java Methods Overview Watch here
- 22. Types of Methods Watch here

#### **Patterns and Print Statements**

- 23. Pattern Printing Basics (Rectangles & Squares) Watch here
- 24. Triangles and Composite Patterns Watch here
- 25. Number Pyramid and Star Diamond Watch here
- 26. Star Diamond Patterns Watch here

# **Arrays and ArrayLists**

- 27. Array Basics (Syntax and Declaration) Watch here
- 28. Array Input and Output Watch here
- 29. Basic Array Questions Watch here
- 30. ArrayList Basics Watch here

# **Exception handling**

• <a href="https://youtu.be/IZu5rZTN7PI?si=7W-mu7YFJEWpx0FI">https://youtu.be/IZu5rZTN7PI?si=7W-mu7YFJEWpx0FI</a>



# **Backtracking (+ N Queens Problem)**

Watch here

#### **Collections**

• Watch here

## **Search and Sorting Algorithms**

- 31. Linear Search Watch here
- 32. Binary Search Watch here
- 33. Bubble Sort Watch here
- 34. Selection Sort Watch here
- 35. Insertion Sort Watch here
- 36. Comparison among Bubble Sort, Selection Sort, and Insertion Watch here

### **Multi-Dimensional Arrays**

- 37. 2D Array Basics Watch here
- 38. 2D Array Traversal Watch here

## Strings and StringBuilder

- 39. Introduction to Strings Watch here
- 40. Basic String Operations (charAt, length) Watch here
- 41. StringBuilder and Mutability Watch here



## **Time and Space Complexity**

- 42. Introduction to Time Complexity Watch here
- 43. Space Complexity Basics Watch here

## **Hashing**

1. Hash Functions, Collisions, HashMap/HashTable Usage: Hashing in Java

#### **Stacks**

41. Introduction, Operations (Push, Pop), Applications: Stacks in Java

#### **Queues**

42. Types (Simple Queue, Circular Queue, Priority Queue), Applications: Queues in Java: Queues in Java

#### **Linked Lists**

- 43. Singly Linked List: Singly Linked List in Java
- 44. Doubly Linked List: Doubly Linked List in Java
- 45. Circular Linked List: Circular Linked List in Java

#### **Trees**

- 46. **Binary Trees: Binary Tree Introduction**
- 47. Binary Search Trees (BSTs): BST in Java
- 48. Balanced Trees (AVL, Red-Black): AVL Trees



## **Heaps**

- 49. Max-Heap, Min-Heap, Applications: Heaps in Java
- 50. Insertions and deletions in heap: Insertions and deletions in heap

## **Graphs**

- 51. Graph Representations: Graphs in Java
- 52. Graph Traversal Algorithms: BFS, DFS: Graph Traversals

#### **Tries**

53. Implement Trie (insert, search, starts with, count words equal to): Implement Trie

# **Dynamic Programming**

• Dynamic Programming Playlist

#### ## OOPS Notes

OOPS NOTES -

Watch here

## ## Top 100 Questions

**Top 100 Questions** 



# \*\* Playlist Links

• Code With Harry: Watch here

• Apna College: Watch here

• College Wallah: Watch here

• Striver - Watch here

## **## Note on Playlists**

We have referred to playlists that cover the basics of Java in a beginner-friendly manner, focusing on practical examples and real-world applications. Each video is meant to build on the previous topics, ensuring a solid foundation in Java programming. Please watch each video in sequence for the best learning experience.

## \* Disclaimer

These videos might be unavailable after some time.



#### **Crash courses**

- 1. Abdul Bari All Courses 👸 🤚 😐
- Learn Core JAVA Programming Beginner to Master
- Mastering Data Structures and Algorithms using C and C++
- Learn C++ Programming -Beginner to Advance- Deep Dive in C++
- Mastering Java SE programming from Beginner to Master

**Size: 157 GB** 

Sale Page: <a href="https://www.udemy.com/user/mohammed-abdul-bari-2/">https://www.udemy.com/user/mohammed-abdul-bari-2/</a>

Download Link: <a href="https://rglinks.com/9PQADmuE">https://rglinks.com/9PQADmuE</a>

2. Cohort 2.0 by Harkirat Singh Full completed

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