

SOTI Java Interview Preparation Guide

Approach Overview

The SOTI interview typically involves an online coding round followed by one or two technical interviews and an HR round. The primary focus is on Java, data structures and algorithms (DSA), and object-oriented programming (OOPs).

Phase 1: Core Java Mastery

- OOPs: Abstraction, Inheritance, Polymorphism, Encapsulation
- Java Collections: List, Set, Map, Stack, Queue
- Exception Handling, Interfaces vs Abstract Classes
- Java 8 Features: Lambda expressions, Stream API
- Basics of Multithreading and File I/O

Phase 2: DSA Topics

- Arrays & Strings: Two pointers, Sliding Window
- Hashing: HashMap, HashSet
- Recursion & Backtracking: Permutations, Subsets
- Linked List: Reverse, Merge, Detect Loop
- Stack/Queue: Infix/Postfix, Monotonic Stack
- Trees: Inorder, Preorder, DFS, BFS
- Graphs: BFS, DFS, Union-Find
- Dynamic Programming: 0/1 Knapsack, LIS, LCS

Recommended Platforms

- LeetCode (tag: SOTI)
- GeeksForGeeks (DSA practice + Java tutorials)
- InterviewBit, CodingNinjas Studio

Phase 3: Mock Tests & Contest Practice

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- LeetCode Weekly Contests
- GeeksForGeeks SDE Sheet
- Mock coding rounds on CodingNinjas or Scaler

Phase 4: Projects & System Design (For Tech Interviews)

- Be confident with your Java projects
- Be ready to explain system design using OOP principles (e.g., Library System)
- Learn basics of Design Patterns: Singleton, Factory

Java Coding Template

```
import java.util.*;

public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i = 0; i < n; i++) arr[i] = sc.nextInt();
        System.out.println(solve(arr));
    }

    static int solve(int[] arr) {
        return arr.length;
    }
}
```

Suggested 4-Week Schedule

Week 1: Java Basics, Arrays, Strings, Hashing

Week 2: Linked List, Stack/Queue, Recursion

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Week 3: Trees, Graphs, Sorting, Searching

Week 4: DP, Mock Interviews, Resume Review

Final Tips

- Stick with Java throughout the prep.
- Practice clean code with proper naming conventions.
- Explain your code during practice to simulate interview behavior.
- Use IntelliJ or Eclipse for realistic coding environments.