

# DATA STRUCTURE & ALGORITHMS USING JAVA

Get the skills to get ahead, stay relevant and earn more

Book your seat now



Reviews 2,500+ • Excellent



**12800+**  
STUDENTS  
TRUST US



## About INCAPP

INCAPP Coding Institute, established in 2011, was founded with the goal of addressing the global tech skills shortage. Our commitment lies in offering high-quality training programs to students, professionals, and organizations. We strive to empower individuals with coding skills, facilitating personal and professional growth, and assisting organizations in enhancing their workforce's productivity and effectiveness. Our company boasts a team of seasoned instructors, experts in their fields. We employ the latest teaching methodologies and technologies to provide engaging and interactive training programs.

## OUR SUCCESS STREAK



14 years  
of training  
expertise



12800+  
students



Placements  
in leading  
organisations

## Founders

“

We foster innovation and empower aspiring coders. As founders, we are excited to welcome you aboard. Whether you're new to coding or already experienced, our hands-on curriculum and expert instructors will guide you. Coding is more than just writing lines; it involves creativity and problem-solving. Embrace challenges and celebrate your successes, knowing that coding is a journey of continuous growth. Let's get started!

”

**RAHUL CHAUHAN****PRAVEEN CHAUHAN**

**Oracle & Microsoft Certified**  
**Founders & Instructors**

## How We Help You To Learn



Step

1

### Expert Instructors

Top-class instructors, experts in their fields, teach through practical training.

Step

2

### Assignments

Understand all concepts through well-structured assignments.

Step

3

### Doubt Resolutions

Dedicated assistance provided to clarify doubts, featuring two types of instructors: Class Instructor and Lab Instructor.

Step

4

### Projects

Gain a comprehensive understanding of the technology through project work, guided by your instructor.





# Why INCAPP Coding Institute

Students deserve the finest learning environment.  
At INCAPP, we guarantee a superior learning experience and  
personalized support to ensure your success.



Top-Notch  
Classroom with  
Expert Instructor



Comprehensive  
Study Materials



Continuous  
Feedback and  
Monitoring



Guaranteed  
Course  
Completion



Project-Based  
Learning



Course  
Completion  
Certification



Dedicated  
Support for  
Doubt Resolution



Placement  
Assistance



Individual  
Attention to  
Each Student



In-Class  
Assignment  
Sessions



## Trainers at INCAPP



### Expert in Advanced Technologies

Trainer having in depth knowledge and expertise in advanced technologies.



### Excellent explanation

Explains the concepts in easy and fun manner.



### Punctual and Disciplined

Values time with punctuality and disciplined scheduling.



### Simplifies Complex Concepts

Breaks down complex concepts into easy-to-understand lessons.



### Professional & Efficient

Efficient and focused without wasting students' valuable time.



### Certified in their fields

Certified in Python, Java, and other essential technologies skills.



### Years of Technical Experience

Years of practical experience in technical projects and training.



### Committed to student success

Guides students with personalized mentorship ensure students achieve their learning goals.



## The world's leading tech companies and startups hire our students



& many more



## 5 Reasons To Learn DSA



**Problem-Solving Skills:** Enhances your ability to tackle complex problems logically.



**Efficiency in Coding:** Helps in writing more efficient and optimized code.



**Essential for Technical Interviews:** Crucial for performing well in coding interviews.



**Understanding of Algorithms:** Aids in understanding and implementing algorithms effectively.

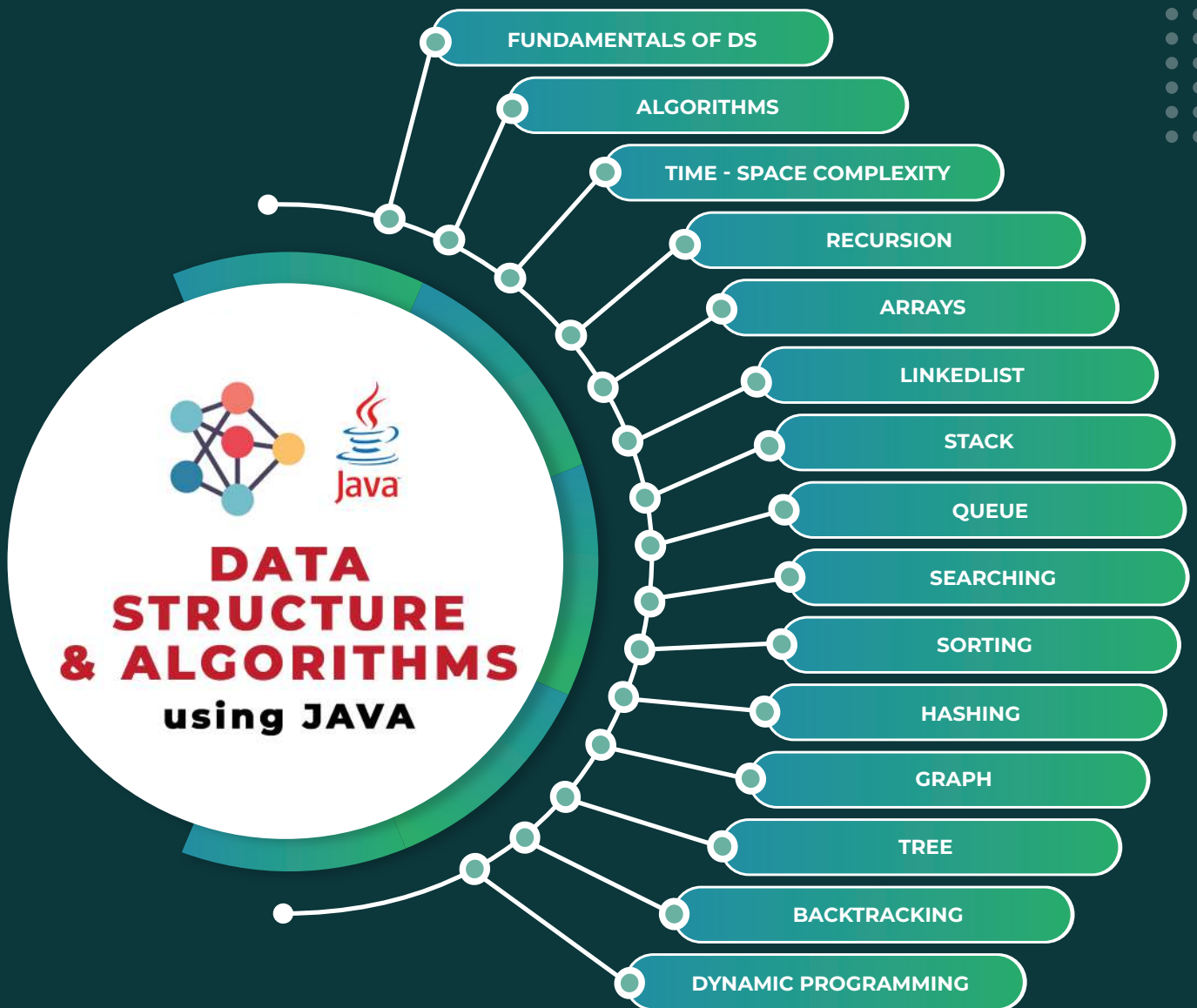


**Foundation for Advanced Computing:** Provides a strong base for learning advanced topics like AI and machine learning.





# DSA Mastery



**PROBLEM SOLVING**



## Course Overview:

Data Structures and Algorithms are fundamental concepts in computer science used for efficiently organizing, managing, and processing data. Data structures like arrays, linked lists, trees, and graphs enable efficient data storage and retrieval, while algorithms provide step-by-step procedures for solving problems and performing computations. Their study is crucial for developing optimized and efficient software solutions, crucial for tasks like data analysis, problem-solving, and system design. Understanding these concepts is essential for any programmer or software engineer to write better-performing and resource-efficient code.

### DSA



#### Introduction to Data Structure and Algorithm

- Introduction to Data Structures and Algorithms
- Types of Data Structures
- Types of Algorithm
  - Simple Algorithm
  - Condition Algorithm
  - Iterative Algorithm
  - Recursive Algorithm

#### Recursion

- Time and Space Complexity
- Operations on DS

#### Problem Solving

#### Arrays

- Array Introduction
- Insertion Operation
  - Insertion at the End
  - Traversing an array
  - Insertion at the specified index
- Deletion Operation



- Deletion from the End
- Deletion from the specified index

### Problem Solving

#### Linked List

- Introduction to Linked List
- Types of Linked Lists
  - Singly Linked List
  - Singly Circular Linked List
  - Doubly Linked List
  - Doubly Circular Linked List
- Introduction to Singly Linked List
  - Traversing nodes
  - Insertion at the End node
  - Insertion at Begin node
  - Insertion at Specified node
  - Deletion from the End node
  - Deletion from the Begin node
  - Deletion of Specified node
- Introduction to Singly Circular Linked List
  - Traversing nodes
  - Insertion at the End node
  - Insertion at Begin node
  - Insertion at Specified node
  - Deletion from the End node
  - Deletion from the Begin node
  - Deletion of Specified node
- Introduction to Doubly Linked List
  - Traversing nodes
  - Insertion at the End node
  - Insertion at Begin node
  - Insertion at Specified node
  - Deletion from the End node
  - Deletion from the Begin node
  - Deletion of Specified node
- Introduction to Doubly Circular Linked List
  - Traversing nodes
  - Insertion at the End node
  - Insertion at Begin node
  - Insertion at Specified node
  - Deletion from the End node
  - Deletion from the Begin node



Deletion of Specified node

### Problem Solving

#### Stack

- Introduction Stack
- Operations on Stack
  - Push
  - Pop
  - Traverse
- Array Stack
- Linked Stack

### Problem Solving

#### Queue

- Introduction to Queue
- Operations on Queue
  - Enqueue
  - Dequeue
  - Traverse
- Array Queue
- Linked Queue
- Circular Queue
- Priority Queue

### Problem Solving

#### Searching

- Introduction to Searching
- Linear Search
- Binary Search

### Problem Solving

#### Sorting

- Introduction to Sorting
- Bubble Sort
- Selection Sort
- Insertion Sort
- Radix Sort
- Counting Sort
- Quick Sort
- Merge Sort
- Heap Sort

### Problem Solving



**Hashing**

- Introduction to Hashing
- Collision in Hashing
- Collision Resolution
- Hashtable
- Operations on Hashtable
  - Creation
  - Insertion
  - Traversing
  - Deletion
  - Searching

**Problem Solving****Graph**

- Introduction to Graph
- Graph Representation
- Graph Traversal

**Problem Solving****Graph Algorithm**

- Breadth First Search (BFS) Algorithm
- Depth First Search (DFS) Algorithm
- Minimum Spanning Tree
- Greedy Algorithms
  - Kruskal's Algorithm
  - Prim's Algorithm
- Dijkstra's Algorithm

**Problem Solving****Tree**

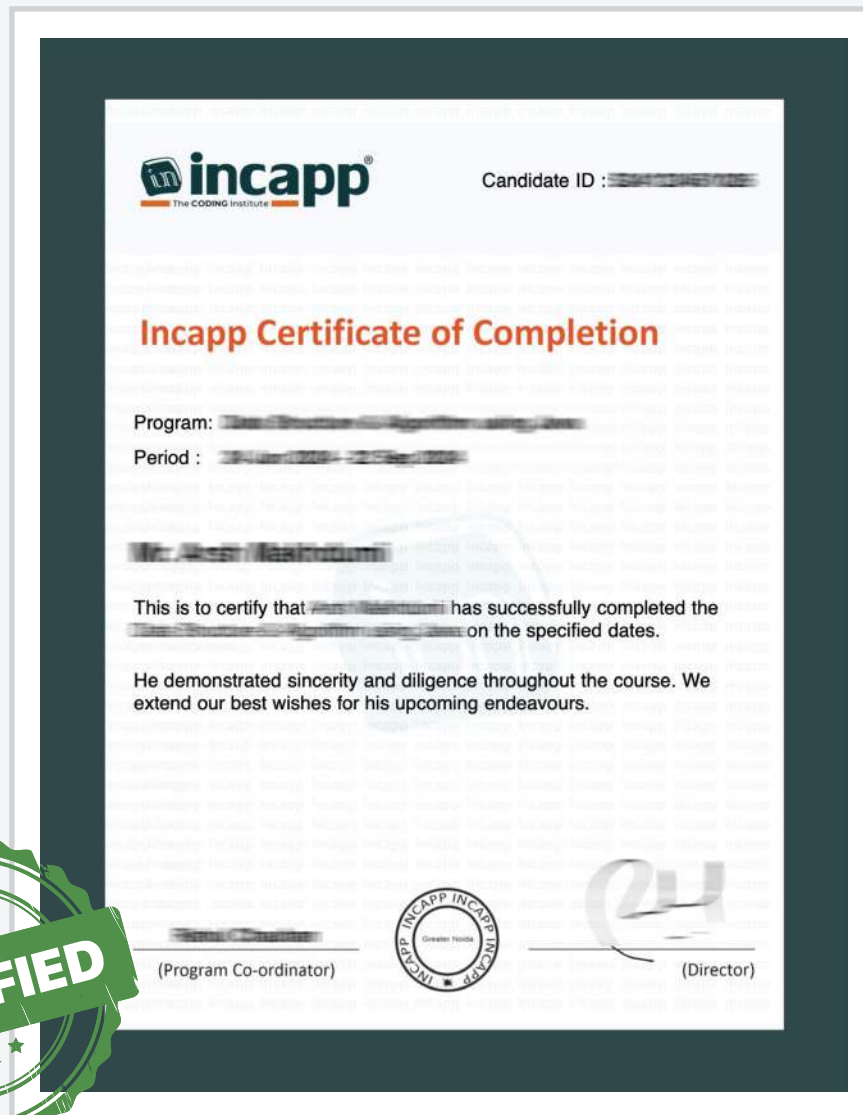
- Introduction to Tree
- Examples of Tree
- Binary Tree Traversal
  - In-order Traversal
  - Pre-order Traversal
  - Post-order Traversal
- Examples of Binary Tree Traversal
  - Full Binary Tree
  - Perfect Binary Tree
  - Complete Binary Tree
  - Degenerate or Pathological Tree
  - Skewed Binary Tree
  - Balanced Binary Tree
- Binary Search Tree (BST)

**Problem Solving****Backtracking****Problem Solving****Dynamic Programming****Problem Solving**





## Certificates



Upon completion of Course/Program, you will receive certificate from Incapp. This certificate validates your skills as an expert in the technology.



## Our Impact

Students Successfully  
Trained

12800+

14+

Years of Experience

Students Recommend  
Us to Their People

99%

100%

Course Completion  
Rate

Projects Developed

100+

4.9/5

Google Rating



## What our students say about us

**Satyam Kumar**

2 reviews · 1 photo



a week ago

NEW

Your teaching in Java Technology has been truly exceptional. Your deep expertise, clear explanations, and practical examples have significantly enhanced my understanding of the subject. Thank you for your dedication and for making learning Java so engaging and enjoyable.

**Rajan Roy**

Local Guide · 19 reviews · 12 photos



a week ago

NEW

I have completed the Java Core and DSA with Java courses from Incapp. Rahul Sir taught us coding in a very clear and understandable manner. The teaching style was easy to follow. Additionally, Incapp offers numerous backup classes and doubt-clearing sessions. The faculty at Incapp are very helpful and always available to solve any problems you may have. I definitely recommend Incapp if you want to grow, improve your skills, and achieve your dreams. Thank you

**Jyoti Maurya**

1 review



2 weeks ago

NEW

By choosing this platform is blessing for me. It is just amazing and interesting to learn here don't be late. It's totally a worth decision to boost your knowledge.

And this place is very safe and secure especially for girls so don't be concerned about safety and location.

**Yuvesh kasana**

1 review



3 months ago

I just wanted to express my gratitude for the excellent coaching sessions you've been providing for Java. Your teaching style is incredibly clear and effective, making complex concepts easy to understand. I appreciate your patience in addressing all of my questions and your willingness to provide additional resources for further learning. Thanks to your guidance, I feel much more confident in my Java skills and excited to continue improving. Keep up the fantastic work!

## What our students say about us

**Anoop Shankar**

1 review

★★★★★ 2 months ago

Being the student of INCAPP is the best start to be the best in your field. Rahul Sir himself is mentoring many of us so that we as a developer will lead the IT sector. Here in INCAPP each one of you will be nurtured for the better future.

**bulbul Dwivedi**

2 reviews

★★★★★ 3 months ago

Incapp excellent communication skills with students A great review of python course essentials for programming in Incapp & a better understanding of coding, testing & applying style guidelines as per thoroughly given by instructor Mr. Praveen Chauhan

**Tanu Kumari**

2 reviews

★★★★★ 11 months ago

The coaching provided by Incapp for Web designing was exceptional.  
The coach's expertise in Java was evident throughout the coaching sessions.  
The coaching style was effective in breaking down complex concepts into easily understandable parts.  
The coach provided clear explanations and examples, making it easier to grasp.  
Overall, I am highly satisfied with the coaching provided by Incapp for Web designing.

**Aditya Kaushik**

1 review

★★★★★ a week ago **NEW**

I did Core Java and data. Structure and algorithm. Algorithm In Incapp. by "Rahul chauhan" Sir It has really helped me understand.. the Care Concept in my Course and I fell more Confident in what I am doing Thanks Rahul chauhan

& many more

## What our students say about us

**Lakshay Sharma**

1 review · 1 photo

★★★★★ 2 months ago

I took c course from INCAPP. It was very resourceful for me. Coming from a non technical background I never understood c at my college, but in INCAPP Praveen chouhan sir made c language seem very easy and interesting. Now I feel more confident!

**Samriddh Pandey**

2 reviews

★★★★★ a month ago

"At first, I thought this was just a regular coding institute like the others, but it's different. The instructors are highly trained and dedicated to ensuring you fully understand the material. It's an excellent place to learn coding."

**Yuvraj Singh**

1 review

★★★★★ a year ago

It was an amazing experience with this institute, awesome way of teaching. My advice is to must join this for better learning and your bright future.. At the end all that i can say is just awesome..

**Satyam singh Bhudev**

3 reviews · 1 photo

★★★★★ 4 months ago

Your teaching in Java Technology has been truly exceptional. Your deep expertise, clear explanations, and practical examples have significantly enhanced my understanding of the subject. Thank you for your dedication and for making learning Java so engaging and enjoyable.

& many more



## Courses we offer

Java Full Stack Development



Python Full Stack Development



Web Full Stack Development




C & C++ Language



Java Language



Data Structure & Algorithms Using Java



Java Backend  
(Adv. Java & Spring & Hibernate Framework)



OCFA Java Certification



OCP Java Certification



Python Language



Data Analytics & Science



Django Framework



Web Development



Advanced Web Front End (React JS)



Web Back End  
(Node JS & MongoDB & Express JS)






Are you ready to elevate your career?



# Get In Touch

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