



UnCodemy

# DATA STRUCTURE & ALGORITHM



Job Guarantee program

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## ABOUT US

Uncodemy is one among a couple of driving organizations / in Delhi, Noida, NCR, India that give undeniable preparation in Data Science, Machine learning, Python programming, Tableau, - Deep Learning, and Artificial Intelligence. We at the collegetarget producing quality experts who can withstand the developing contest and rising intricacies in the innovative world. We are growing and leading the company of Delhi, Noida, NCR, India.

## THE UNCODEMY

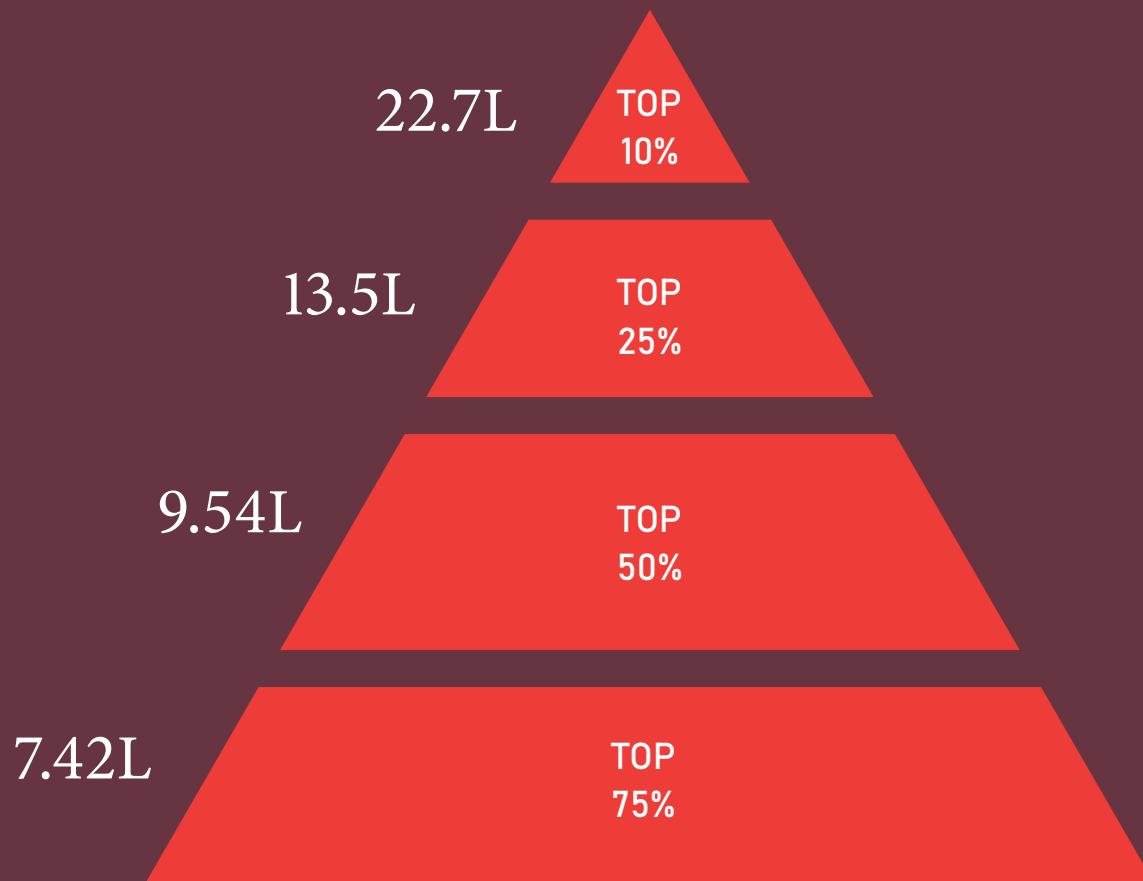
Is an Educational and Professional improvement Organization that has been established to propel the product and IT calling by advancing and perceiving demonstrable skill through training, counselling, gatherings and accreditation. Our Professional Dedicated Team guarantees to give you the best of specialization courses under disciplines like Data Science Machine Learning, Data Mining, Tableau, Text Mining, ReactJS, NodeJS, Angular, Python Programming, Deep Learning, and Java, network protection, programming testing, Cloud Technology, Digital advertising and a lot more with an emphasis on trustworthiness and on the web and Offline learning. We're attempting to transform our enthusiasm for IT Software Training Platform into a thriving position and occupation situated in the preparing stage without any hesitation at work.

**Our aim is simple: We strive to create high-impact, hands-on experiences that prepare learners for meaningful and productive careers.**

**Warm Regards,  
Founder Uncodemy**

## CAREERS IN DATA STRUCTURE & ALGORITHM

### SALARY PACKAGE



The results of a Data Structure & Algorithm job is tracked in a data base engineers to review so they can fix the defect. There are times when the position can seem monotonous, but the focus your work will constantly change to different aspects of the program, alleviating some of the repetition. You also get an early look at the latest in technology and have a hand in making sure that a program is as defect free as possible. Finally, with Development being an area that will always grow, Development have one of the most secure jobs in the tech industry.

# Why Should You Choose UnCodemy?

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## Top MNCs

UnCodemy partners with top-tier companies to ensure that its students receive instruction from industry experts with hands-on experience in the field of Data Structure & Algorithm



## No. 1 Institute for the Data Structure & Algorithm

UnCodemy in Noida stands out as the premier data Structure & Algorithm course provider, featuring industry-experienced mentors from major corporations. With a commitment to 100% placements, it offers live project experiences, flexible online & offline training modes, and accelerated certification options catering to working professionals.



## About Courses

UnCodemy follows a structured approach and comprehensive curriculum. Here are some key reasons why learning Data Structure & Algorithm from a training program can be beneficial:

1. Access to experienced instructors who can provide personalized guidance and support.
2. Exposure to industry-relevant tools and technologies.
3. Hands-on experience with real-world datasets and projects.
4. Networking opportunities with other students and professionals in the field.
5. A structured curriculum that covers the key concepts and skills needed to succeed in Data Structure & Algorithm.
6. Access to job placement assistance and career counseling.

## About Industry Expert Trainers



Uncodemy partners with seasoned industry professionals to provide students with first-hand knowledge and real-world applications in the realm of Data Structure & Algorithm. These experienced instructors share their practical insights, equipping students not only with theoretical knowledge but also with the practical skills needed to succeed in the field.

## About Certificate



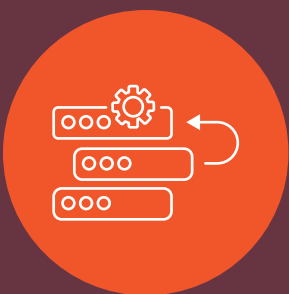
Uncodemy is recognized by top industry bodies such as ISO and NASSCOM and is also endorsed by Skill India, a government initiative aimed at boosting skills development in the country. The certifications provided by Uncodemy are highly valued by employers, as they signify that the candidate has completed a rigorous program and has the necessary skills and knowledge to excel in the field.

## Doubt Session



Uncodemy facilitates doubt sessions where students can receive individualized attention and clarification on challenging concepts. These sessions are led by experienced instructors who provide comprehensive explanations and examples, ensuring that students leave the session with a thorough understanding of the material.

## Grooming Session



Soft skills training to improve communication, networking, and leadership skills. Identifying and highlighting transferable skills that may not be obvious.



## CV building

Helping students build a killer resume. Ensuring that the resume includes relevant keywords to help it stand out in applicant tracking systems. Overall, it's about helping students make their resume shine and stand out from the competition.



## Interview session

The goal is to prepare students for the job interview process, giving them the chance to practice their communication and interpersonal skills, and helping them feel more confident and prepared for the real thing.



## Mock interview

Uncodemy uses mock interviews in its IT training program as a tool to help students refine their interview skills and prepare for job interviews in the tech industry. The mock interviews are designed to replicate the pressure and format of a real interview, without the actual job at stake.

## Key Features



## Live industry-based projects



**100% placement assistance**



## CV building



## Confidence Building



Online



Offline

## Online & offline



**weekly & weekend classes**



## Interview Session



## Mock Interview Session



## Course Completion certificate



## Recorded Class



## Group Discussion



## Communication Skills



## Interview Session



## 6 Months internship



## Access to Class & Training Until Placement



# Course Curriculum

## DS Basics

- DS Tutorial
- DS Introduction
- DS Algorithm
- Ds Asymptotic Analysis
- DS Pointer
- DS Structure

## DS Array

- Array
- 2D Array

## DS Linked List

### Linked List:

- Insertion at beginning
- Insertion at end
- Insertion after specified node
- Deletion at beginning
- Deletion at end
- Deletion after specified node
- Traversing
- Searching

### Doubly Linked List

- Insertion at beginning
- Insertion at end
- Insertion after specified node
- Deletion at beginning
- Deletion at end

- Deletion of node having given data
- Traversing
- Searching

## Circular Linked List

- Insertion at beginning
- Insertion at end
- Deletion at beginning
- Deletion at the end
- Traversing
- Searching

## Circular Doubly List

- Insertion at beginning
- Insertion at end
- Deletion at beginning
- Deletion at the end

## DS Stack

- DS Stack
- Array Implementation
- Linked List Implementation

## DS Queue

- DS Queue
- Array Implementation
- Linked List Implementation
- Circular Queue

## DS Tree

# Course Curriculum

- Tree
- Binary Tree
- Pre-order Traversal
- In-order Traversal
- Post-order Traversal

## Binary Search Tree

- Searching in BST
- Insertion in BST
- Deletion in BST
- **AVL Tree**
- Insertion in AVL Tree
- LL Rotation
- LR Rotation
- RL Rotation
- RR Rotation
- Deletion in AVL Tree
- B Tree
- B+ Tree
- Red Black Tree

## DS Graph

- DS Graph
- Graph Implementation
- BFS Algorithm
- DFS Algorithm
- Spanning Tree
- Prim's Algorithm
- Kruskal's Algorithm

## DS Searching

- Linear Search
- Binary Search

## DS Sorting

- Bubble Sort
- Bucket Sort
- Comb Sort
- Counting Sort
- Heap Sort
- Insertion Sort
- Merge Sort
- Quick Sort
- Radix Sort
- Selection Sort
- Shell Sort

## Shortest Path Algorithms: Dijkstra's Algorithm

### Module 1 - Arrays

Declaration and initialization  
Traversals in array  
Prefix Sum and Optimization technique  
Rotation of Array, Kadane's algorithm, and  
Product of array except self

### Module 2 - ArrayList

Declaration and initialization  
Traversals in ArrayList  
Memory management and functions of  
ArrayList

# Course Curriculum

Comparison between Arrays and ArrayList  
and problems based on functions of  
ArrayList

## Module 3 - Matrix

Declaration and initialization  
Memory management and traversals  
Search element and transpose of a matrix  
Rotate a matrix and spiral traversal of a  
matrix

## Module 4 - String

Declaration and initialization  
Memory management and traversals  
Functions of String and Reverse operations  
Valid Anagrams, Isomorphic Strings, and  
substrings with only 1's

## Module 5 - String Builder

Declaration and initialization  
Memory management and traversals  
Functions of StringBuilder  
Comparison of String and StringBuilder  
and problems based on functions of  
StringBuilder

## Module 6 - Recursion and Backtracking

Recursion Faith-Expectation Approach  
Recursion Stack Diagram  
Recursive Tree and Recursion in Arrays  
Recursion through stack compared to  
Recursion through Tree Diagram

## Module 7 - Time and Space Complexity

Big-0, Omega, and Theta Notation  
Time complexity through a mathematical  
equation

Time and Space Complexity of Recursive Code  
Time Complexity in Arrays and ArrayList

## Module 8 - OOPs in Java

Classes and Object  
Constructor and Polymorphism  
Inheritance and Access Modifier  
Encapsulation, Abstraction, Interfaces, and  
Static keyword

## Module 9 - Stack and Queue

Declaration and Initialization of Stack  
Function of Stack  
Design based questions  
Evaluation based questions

## Module 10 - LinkedList

Design a LinkedList  
Implementing Functions of LinkedList  
Mid, Reverse, and Palindrome of LinkedList  
Add, Merge, Sort, and detect cycle of LinkedList

## Module 11 - Binary Tree and Binary Search Tree

Binary Trees Traversals  
Minimum and Maximum Element of Tree  
Height, Sum of Nodes, and Path Sum of Tree  
K-Down Nodes, Diameter of a tree, Find an  
element, LCA, Invert, and View of Tree

## Module 12 - HashMap

HashMap Introduction  
Print Frequency of all elements in an array  
Two sum and Intersection of two arrays

## Module 13 - Heap

Heap Introduction and Functions  
Application-based problem



# CERTIFICATE OF TRAINING

( ISO 9001 : 2015 Certified )

PROUDLY PRESENTED TO

*Devanshi Pande*

You have successfully completed your  
Four Months Training on Data Analytics with specialisation in Python.

28TH JULY 2023

DATE



*Pradip Mehta*

MR. PRADIP MEHTA

Founder

Certified By :



**NASSCOM**  
Certified Member





# Our Alumnus & Companies



# Our Industry Expert Trainers

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**Ms. Sonal Rana**

Full Stack Development | Core & Advance Java | Spring MVC | Angular | Reactjs | MySQL

“Professional Java trainer has extensive knowledge of Java programming combined with good presentation and teaching abilities. Has master’s degree in computer application, strong understanding of Java Development, and over 8+ years of experience. Skills Set: Java 8, J2EE, Spring Boot, Hibernate, JUnit, Maven Microservices, Reactjs, and Angular.



**Mr. Rajesh Kumar Mandal**

Full Stack Development | Express.js | React.js | Node.js | JavaScript | Python | Django | Flask

“Mr. Rajesh, an experienced MERN Full Stack Developer, is proficient in building end-to-end applications using MongoDB, Express.js, React.js, and Node.js. With a strong foundation in Frontend and Backend, and comprehensive understanding of Python programming, and hands-on experience in developing scalable applications. He holds a master’s degree in computer science and possesses over 10+ years of expertise.

**Skills Set:**

MongoDB, Express.js, React.js, Node.js, Python, JavaScript (ES6+), RESTful APIs, Git.

# Congratulations

## Placement



TANVI SINGH

wipro



RAJENDRA YADAV

HCLTech



ABHISHEK KUMAR

mamaearth



ABHILASHA RATHI

Infosys



RUBY SHARMA

elmenus



ADITYA SINGH

Deloitte



PRIYA PARIHAR

MeeTri



DEVENDRA KUMAR

HITACHI



Neha Sharma

Infosys



NEHA

GlobalLogic



ARUN PAL

maruti techlabs



BABITA SINGH

HCL



DEEPAK

IBM



JUHI SHARMA

rapidops



NAMRATA

ADITI CONSULTING



PRASHANT

TECH EXACTLY



CHIRAG GUPTA

RADIXWEB Simplified IT Outsourcing



SAURABH MISHRA

KPMG



SHURTI

ppInventiv



AKASH SINGH

one card

## Congratulations To our selected students



# SUCCESS STORIES



**BABITA**

**Company**  
**Adobe**

Uncodemy is the perfect place to start your data science career, as they provide regular live classes with doubt resolution. Moreover, they also allow students to book additional mentor - ship to sessions with industry experts to understand challenging topics better and gain industry insights. Uncodemy as highly as possible and suggest all the aspirants join Uncodemy with hesitation.

**ADITYA SINGH**

**Company : Deloitte**



Uncodemy is a good place to start up if you are looking for a career transition or build a career in Data analytics. Moreover, guest lectures by Upendra sir are very insightful. Very efficient manage to reach out for any help during train - ing. The best thing is, they also offer support in looking for jobs post training. Thank You..



**RITESH SINGH**

**Company : Bloohash**

After spending 2 years in Non-IT job, decided to switch to IT job. Uncodemy is one of the leading brand in this section.

I have complete here Soft - ware testing training course. They have very good trainers and HR team Who helps you to find the right job. The training content is very excellent and very useful to get your dream IT job. special thanks to Shivendra Sir, Ug sir, Anam Ma'am and HR department team for proper guidance and help throughout this journey. Now I'm working in the leading IT company with good package, all thanks to Uncodemy team.

**NEELAM**

**Company : wipro**



I've always wanted to create complete web applications on my own. | went for an Uncodemy Python Full Stack Course. | am 50 grateful to Uncodemy now because | can fulfil my dream. Their staff and training are 50 fruitful, They will walk you through the process of building your first full - stack Python web application. If you Want to be a good program developer, hurry up and go for the Uncodemy Python.

**Full Stack Course.**





**UnCodemy**

# Contact Us

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