ISDM Independent Skill Development Mission NXT

EMPOWERING FUTURES,
SHAPING TOMORROW

★ AI-INTEGRATED COURSE

NXT CERTIFIED DATA STRUCTURES AND ALGORITHM(DSA)

Unlock your potential in programming with DSA!

Duration: 3 Month | **Certificate** · Advanced | **Eligibility:** This course is suitable for beginners with basic programming

OVERVIEW OF THE COURSE

Welcome to the NxT Certified Data Structures and Algorithm (DSA) course! This comprehensive program is designed to equip you with the essential skills and knowledge required to tackle complex programming challenges. Throughout the course, you will: Learn about various data structures such as arrays, linked lists, stacks, queues...

- Hands-on coding assignments
- Master key algorithms
- Real-world project experience
- Prepare for technical interviews
- Advanced problem-solving techniques



3 Month	9	4	14
DURATION	SUBJECTS	PROJECTS	TOOLS

JOIN NOW →

WhatsApp us

WE ARE AVAILABLE AT
600+ LOCATIONS

NOT SURE WHICH COURSE IS RIGHT FOR YOU?
Choose the Best Course for You - Try our AI-Powered Career Counselling for FREE

Start free →

CONTACT ISDM NxT
ISDM NxT - Independent Skill Development Mission
309, Saffron Plaza, Airport Road, Vadodara, Gujarat, 390022
Call / WhatsApp: **+916263625594** · inquiry@gmail.com

Scan to enquire

COURSE CURRICULUM

What you will learn

01 Subjects → | 02 Projects → | 03 Tools → | 04 AI Integration

01 Subjects & modules

6 subjects with the topics you will learn

01 Programming Logic & Algorithm Foundations

- Algorithm Concepts And Types
- Flowcharts And Pseudocode
- Time And Space Complexity
- Control Structures
- Recursion And Call Stack
- Dry Runs And Variable Tracing
- Number Theory Algorithms

02 Arrays, Strings & Searching Techniques

- Array Basics, Indexing, And Memory Layout
- Array Traversal, Insertion, And Deletion
- Linear And Binary Search
- Bubble, Selection, And Insertion Sort
- Two-Pointer And Sliding Window Techniques
- String Reversal, Palindromes, And Anagrams

03 Linked Lists and Their Variants

- Linked List Fundamentals And Pointers
- Singly Linked List Operations
- Circular Linked Lists
- Doubly Linked Lists And Traversal
- Reversing Linked Lists
- Loop Detection With Floyd's Algorithm
- Arrays And Linked List Tradeoffs

04 Stacks, Queues & Applications

- Stack Principles, Operations, And Implementations
- Stack-Based Expression Conversion And Evaluation
- Queue Principles And Circular Queues
- Deque Operations And Applications
- Stack And Queue Applications
- Priority Queues And Implementations
- Practical Stack And Queue Programs

05 Trees, Graphs & Advanced Techniques

- Tree Basics And Types
- Binary Tree Traversals
- BST Operations
- AVL Trees And Rotations
- Graph Types And Representations
- Graph Traversal With BFS And DFS
- Topological Sorting And Cycle Detection

06 Advanced Concepts & Interview Readiness

- Hashing And Collision Handling
- Min And Max Heaps
- Greedy Algorithms
- Dynamic Programming
- Backtracking
- Divide And Conquer Sorting
- Sliding Window And Recursion Trees

02 Projects & assignments

Hands-on work for your portfolio

P1 Implement a library management system using data structures.

P2 Create a personal project that involves sorting and searching algorithms.

P3 Develop a simple game that utilizes trees and graphs.

P4 Solve coding challenges on platforms like LeetCode or HackerRank.

03 Your NxT Learning Kit

Practice for every subject, inside your student login

PRACTICAL APPLICATIONS

4

real-work tasks

For every subject: where it is used in real jobs and business, a step-by-step method, a worked example and a task you do on the computer and submit. Your trainer checks it and gives feedback.

- Covers 2 subjects
- Checked by your trainer
- Counts in your progress report

SUBJECT TESTS

2

online tests

Online practice tests subject by subject. Your result comes instantly, the right answers are explained, and you can try again to improve your score.

- 38 practice questions
- Instant result
- Answers explained

GLOSSARY

50

key terms

Every important word of your subjects in simple language, with a short meaning and an example, so technical words never stop you.

- Simple meanings
- Real examples
- Subject wise

INTERVIEW PREPARATION FOR REAL WORLD

30

interview questions with answers

Questions that companies really ask for this field, with clear model answers, so you walk into job interviews ready and confident.

- Model answers
- Asked in real job interviews
- Subject wise

BROAD RESOURCES OF EXTERNAL MATERIAL

22

videos & learning links

Hand-picked free videos, official guides and reading material for every subject, so you keep learning beyond the classroom.

- 12 videos
- 10 reading links
- Picked for your syllabus

FLASH CARDS & REVISION

44

flashcards & revision questions

Quick flip cards and short revision quizzes made from your study books, plus a short AI summary of every book, for fast revision before tests and exams, and an AI Tutor that answers your doubts.

- 24 flashcards
- 20 revision questions
- 2 AI study summaries
- AI Tutor for your doubts

04 Tools & software you will master

4 industry tools

Python



Java



C++



Git

05 AI Integration

How AI is used inside the work of this course

AI SUBJECT

AI for Office Productivity (Word, Excel, PowerPoint)

- **Safe AI use and prompt basics for office work**
  Microsoft 365 Copilot and Gemini for Google Workspace in Microsoft 365 and Google Workspac
- **AI-assisted documents and email in Microsoft 365**
  Microsoft 365 Copilot in Word: Create, rewrite and summarise a workplace letter or report,
- **AI formulas, data cleaning and analysis in Excel**
  Microsoft 365 Copilot in Excel: Generate or explain formulas, analyse a table and create a
- **AI presentations in PowerPoint and Google Slides**
  Microsoft 365 Copilot in PowerPoint: Create or revise a presentation from a prompt or supp
- **Gemini in Google Workspace: documents, spreadsheets and email**
  Gemini for Google Workspace in Google Docs: Draft, rewrite or summarise a document and ver
- **AI-assisted calendar, meetings and task management**
  Microsoft 365 Copilot in Microsoft Teams, Microsoft To Do and Planner: Review an available
- **AI connectors and office-work automation**
  ChatGPT connectors in Gmail, Google Calendar and Google Drive where supported: Connect an

AI SUBJECT

AI for Programming & Web Development

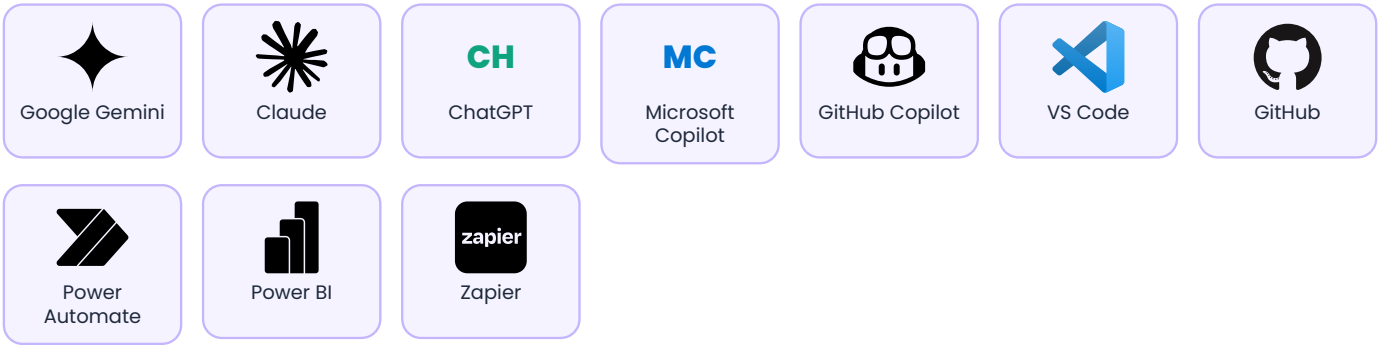
- **AI Pair Programming Setup: VS Code and GitHub Copilot**
  GitHub Copilot in VS Code: Sign in, use inline suggestions and Chat, then try agent mode o
- **AI-Assisted Front-End Development**
  GitHub Copilot in VS Code: Use inline suggestions and Chat while building and refining a r
- **Python Coding and AI Agents in the Editor and Terminal**
  Claude Code in Terminal and project files: Install or access it using the current official
- **GitHub Team Workflow and AI Code Review**
  GitHub Copilot code review in GitHub pull requests: Request a review on a practice pull re
- **Calling AI APIs from Your Own App**
  OpenAI API in A local app or server-side project: Create an API key with available account
- **AI-Assisted Testing, Debugging and Documentation**
  GitHub Copilot Chat in VS Code: Use project context to suggest tests or explain a failure,
- **AI-Assisted Deployment and Final Project**
  GitHub Copilot in VS Code: Ask for help preparing or explaining deployment files, then rev

AI SUBJECT

AI for Data Analytics

- **Analyst Workflow, Data Safety and AI Request Basics**
  ChatGPT, Claude or Gemini in Data-analysis workspace with file upload, when available for
- **AI-Assisted Analysis in Excel**
  Copilot in Excel in Microsoft Excel
- **AI-Assisted Analysis in Google Sheets**
  Gemini in Google Sheets in Google Sheets
- **Analysing Uploaded CSV and Excel Files with AI**
  ChatGPT data analysis in ChatGPT workspace with file upload, when available for the accoun
- **AI-Assisted SQL and Data Verification**
  Gemini in BigQuery in BigQuery SQL workspace
- **AI Dashboards and Reports**
  Copilot in Power BI in Microsoft Power BI · Gemini in Google Sheets with Looker Studio in
- **Automated Reports and Email Summaries**
  AI Builder prompt action in Power Automate · Gemini API in Google Apps Script connected to

AI TOOLS YOU WILL USE



CAREER OPPORTUNITIES

Where this course can take you

Software Developer
Fresher salary: ₹3.0-5.0 LPA*

Data Analyst
Fresher salary: ₹2.5-4.5 LPA*

Systems Engineer
Fresher salary: ₹3.0-6.0 LPA*

Technical Consultant
Fresher salary: ₹3.5-5.5 LPA*

Software Tester
Fresher salary: ₹2.8-4.8 LPA*

Freelancing & own business

- Developing custom software solutions
- Building mobile applications
- Offering algorithm consulting services
- Creating educational content on programming

Industries that hire

- Information Technology
- E-commerce
- Finance
- Education
- Healthcare

Grow further

- NxT Certified Advanced Programming
- NxT Certified Full Stack Development
- NxT Certified Data Science

Certification

Upon successful completion, you will receive the NxT Certified Data Structures and Algorithm certificate, validating your skills.

Practical AI-integrated project | Final online test | Verifiable certificate

JOB SUPPORT

How we help you get a job

1 Resume building workshops

2 Mock interviews with feedback

3 Access to job offers

4 Guidance on job applications

* Typical fresher salary ranges in India; the actual salary depends on the employer, the city and your skills.

WHY START NOW

Your future is built by the skills you learn today.

Companies hire people who can do the work. People who use AI well at work are in demand - this course teaches you the job skills and the AI tools together. Every month you practise adds a project to your portfolio - the best time to start is now.

18+	600+	2,708+	390+
Years of training experience	Centres across India	Job offers to our students	Hiring companies

UNIQUE FEATURES AT ISDM NxT

- ✓ Free pre-counselling to choose the right course
- ✓ Study material, attendance, assignments, exams and results online from day one
- ✓ 24x7 AI trainer (ChatNxT) for your doubts
- ✓ Experienced, rated trainers and daily class feedback
- ✓ Practical lab sessions and live projects
- ✓ Monthly online mentorship sessions
- ✓ Resume, mock interviews and job offers in your student dashboard
- ✓ Freelancing and start-up guidance

● LIVE PLACEMENT DATA

Latest job offers to ISDM NxT students

Updated 24 Nov 2026



Gaurav M.
India
Java Software Development Engineer
Health Catalyst



Geeta K.
New Delhi
tellecaller for digital marketing
balajimarketingexperts



Anand S.
Muvattupuzha
Hiring Junior Account Executive J...
CorpZop



Adarsh S.
Ghugus
TGT Computer Science
Adani Foundation



Priyanka Y.
Mumbai
Data Entry Operator (Full-time) -...
CorpZop



Rajan S.
Ahilyanagar
Computer Trainer
Enlearning skill development Ltd

Job offers shared with our students through the ISDM NxT job network. See all at www.isdmnext.in/latest-placement

LIMITED SEATS · VALID TILL 04 DEC 2026

FREE Ambassador Affiliate Programme

Complete your admission within **10 days** and join the ISDM NxT Ambassador Affiliate Programme free of cost: refer friends, earn referral rewards as per the programme and get featured on the ambassador leaderboard.

CLAIM NOW

TAKE THE FIRST STEP

Book your FREE counselling session today

Meet our counsellor, see the lab, get your doubts answered and know the current fees and offers for your centre.

ISDM NxT HEAD OFFICE

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Try it FREE →
www.isdmnext.in/course-for-you

01
Counselling
Free guidance to pick the right course

02
Training
Practical classes, labs and projects

03
Mentoring
Experts, AI trainer and feedback

04
Placement support
Resume, interviews and job offers

What you get with this course

- Comprehensive study material
- Practical lab sessions
- Live projects for hands-on experience
- 24x7 AI trainer support
- AI career counselling
- Interview preparation sessions
- Job offers in student dashboard
- Certification upon completion

Fees depend on the centre and current offers - ask your counsellor. Course content may be updated to stay current with industry needs. · www.isdmnext.in