



futureminds

StepDegree

Full Stack Development

Curriculum
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Unit 1

Computer Science Fundamentals

Course Introduction

Basics of:

- OS
- DBMS
- CN

Unit 2

Introduction to Programming

- Loops
- Decision tree
- Operators
- Binary Numbers
- String
- Array
- Funtions
- pointers
- Structures & Unions
- Asymptotic notations

Unit 3

Data Structures & Algorithm

- Time Complexity, Arrays, Strings, Binary Search, 2
- Pointers, Recursion, Hashing,
- Sorting, Bit manipulation
- Stacks,
- Queues,
- Linked Lists
- Trees
- Tries,
- Heap
- Greedy
- Graphs

Unit 4

System Design

- Flow Digram
- Caching
- Network Load
- Protocols
- Queues,
- Cuncurrency
- Database

Unit 5 **Frontend Development**

- HTML
- CSS
- Bootstrap
- JavaScript

Unit 6 **Framework-React**

- JavaScript
- Components
- JSX
- Redux
- React hooks

Unit 7 **Backend Development**

- Node with Express
- MongoDB
- Tokens & Auths
- Server Deployment