100 Days of Code

Here is a curated list of 100 days of code challenge and everything you need to know about it😉

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Before we begin let me tell you this guide is for those who want to start Coding with consistency and have a 100 Days of Code challenge for themselves.

I have personally started the 100 Days challenge myself and I could see myself improving day after another.

So I hope that this guide would be of your help ❤️

Credits to :

GeeksforGeeks

A computer science portal for geeks

For the Article:
https://www.geeksforgeeks.org/100-days-of-code-a-complete-guide-for-beginners-and-experienced/

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Day 1 to Day 10

- ➔ Pick a Language:
  C++,Java,Python or your choice..
- ➔ Learn basic fundamentals about the language

Day 11 to Day 20

- ➔ Start with Data Structure and Algorithms
  - Arrays
  - Stacks
  - Queues
  - Linked List
  - Trees
  - Tries
  - Graphs (BFS and DFS)
  - Hashing
  - Heaps
  - Sorting
  - Searching

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Day 21 to Day 40

➔ Solve Basic Level Problems

(Once you get familiar with the basic data structure and algorithm practice for the basic coding questions.)

Sample Array Problems

- Merge Two Sorted Arrays
- Subarray with given sum
- Find duplicates in an array
- Missing number in an array
- Array Rotation

Sample Linked List Problems

- Detect Loop in a linked list
- Rotate a linked list
- Merge two sorted linked list
- Searching in the linked list
- Find a middle element in a linked list

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Sample Stack and Queue Problems

- Sort values in Stack
- Implement Two Stacks using one Array

Sample Tree Problems

- Minimum value in Binary Search Tree
- Height of a Binary Tree
- kth maximum value in Binary Search Tree

Sample Graph Problems

- Implement Breadth-First Search and Depth First Search

Sample Heap Problems

- Find k smallest and largest elements in a list

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Day 41 to Day 60

➔ Solve Medium Level Problems

(Now it's time to practice for some medium level questions.)

Sample Array Problems

- Inversion of array
- Maximum of all subarrays of size k
- Trapping rainwater
- Kadane's algorithm

Sample Linked List Problems

- First non-repeating character in a stream
- Rotate a linked list
- Remove loop in a linked list
- LRU Cache
- Clone a linked list
- Find the Intersection point of two linked lists

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Sample Stack and Queue Problems

- Get minimum element from the stack
- Queue using Two Stacks
- Stack using Two Queues

Sample Tree Problems

- Check for BST
- Vertical traversal of binary tree
- Boundary traversal of binary tree
- Delete a node from BST

Sample Graph Problems

- Detect Cycle in a directed and undirected graph
- Find the number of islands
- Word Boggle
- Implementing Dijkstra

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Day 61 to Day 75

➔ Solve Hard Level Problems

(Once you solve the basic and medium level questions, move to the hard problems which are the last ones.)

➔ Try to solve almost 80-90 hard level questions within 15 Days

Sample Problems

- Find median in a stream
- N-Queen problem
- Sudoku problem
- Traveling salesman problem
- Boolean parenthesization

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Day 76 to Day 85

➔ System Design

(For beginners, this section is not very important but sometimes interviewers asked system design-related questions to the non-experienced candidates as well.)

➔ You will be asked to design a web-scale service. So once you're done with basic concepts, prepare yourself for some most likely system design round questions such as…

- ◆ URL Shortening Service (TinyURL)
- ◆ Design Facebook Newsfeed
- ◆ Design Uber or Lyft

Must Go Through:

➔5 Common System Design Concepts for Interview Preparation

➔How to Crack System Design Round in Interviews

➔Top 10 System Design Interview Questions and Answers

➔Design Twitter

➔Design Dropbox

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Day 86 to Day 92

➔ OS and DBMS

(Now it's time to study the two most important computer science subjects, operating systems, and database management systems.)

Go through the basics concepts of operating system such as:

- Process and Process Management
- Thread and Concurrency
- Multithreading
- Lock
- Process Scheduling
- Synchronization and Deadlock
- CPU Scheduling
- Distributed file system
- Memory management
- Critical section problem

Resources

- Commonly Asked Operating Systems Interview Questions | Set 1
- Most asked Computer Science Subjects Interview Questions in Amazon, Microsoft, Flipkart
- GeeksforGeeks Operating System
- GeeksforGeeks DBMS

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Day 93 to Day 99

Object-Oriented Design:

Prepare yourself for an object-oriented design question for 7 days. You should have a good understanding of software design patterns, SOLID/DRY principles, and various oops concepts. Some object-oriented design questions are given below…

- Design an ATM
- Design Vending Machine
- Design a Parking Lot
- Design a Movie Ticket Booking System

Day 100

Last day, prepare yourself for the cultural round. Companies do not hire toxic people and also they don't hire candidates who are not passionate about the product. Understand the culture of the company. For example, in Amazon culture is deeply rooted, and they conduct the bar raiser round. They care a lot about the leadership principle.

Good Luck 😊

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