DSA ROAD MAP

- ➤ **PROGRAMMING LANGUAGE**
- ➤ **BASICS OF DATA STRUCTURES**
- ➤ **LINEAR DATA STRUCTURES**
  - ○ **ARRAYS**
  - ○ **STRINGS**
  - ○ **LINKED LISTS**
  - ○ **STACKS**
  - ○ **QUEUES**

- ➤ **NON-LINEAR DATA STRUCTURES**
  - ○ **TREES**
  - ○ **GRAPHS**

WEEK 1

➔ CHOOSING THE PROGRAMMING LANGUAGE
➔ BASICS OF THE LANGUAGE
➔ BASICS OF DATA STRUCTURES
➔ ARRAYS
- ◆ *INTRODUCTION TO ARRAYS*
- ◆ *OPERATIONS ON ARRAYS*
- ◆ *PASSING ARRAYS TO FUNCTIONS*
- ◆ *POINTERS AND ARRAYS*
- ◆ *TWO DIMENSIONAL ARRAYS*
- ◆ *MULTI-DIMENSIONAL ARRAYS*
➔ STRINGS
- ◆ *INTRODUCTION TO STRINGS*
- ◆ *OPERATIONS*
- ◆ *ARRAYS OF STRINGS*

WEEK 2

➔ LINKED LISTS
   ◆ *INTRODUCTION TO LINKED LISTS*
   ◆ *SINGLY LINKED LISTS*
   ◆ *CIRCULAR LINKED LISTS*
   ◆ *DOUBLY LINKED LISTS*
   ◆ *CIRCULAR DOUBLY LINKED LISTS*

➔ STACKS
   ◆ *INTRODUCTION TO STACKS*
   ◆ *OPERATIONS ON A STACK*
   ◆ *LINKED REPRESENTATION OF STACKS*
   ◆ *MULTIPLE STACKS*

WEEK 3

➜ QUEUES
- ◆ *INTRODUCTION TO QUEUES*
- ◆ *ARRAY REPRESENTATION OF QUEUES*
- ◆ *LINKED REPRESENTATION OF QUEUES*
- ◆ *TYPES OF QUEUES*

➜ TREES
- ◆ *INTRODUCTION TO TREES*
- ◆ *TYPES OF TREES*
- ◆ *CREATING A BINARY TREE*
- ◆ *OPERATION ON BINARY SEARCH TREES*

WEEK 4

➜ GRAPH
  - ◆ *INTRODUCTION TO GRAPHS*
  - ◆ *GRAPH TERMINOLOGY*
  - ◆ *DIRECTED GRAPHS*
  - ◆ *REPRESENTATION OF GRAPHS*
  - ◆ *GRAPH TRAVERSING ALGORITHMS*

CODING PRACTICE

TOPIC WISE PROBLEMS:

ARRAYS:

[Arrays problems](#)

STRINGS:

[Strings problems](#)

LINKED LISTS:

[Linked Lists problems](#)

STACKS AND QUEUES:

[Stacks and Queues problems](#)

BINARY TREES:
Binary Trees problems

GRAPH:
Graph problems

OTHER TOPICS:
DSA problems

NOTE: Follow the list of questions.
Beginners are advised to concentrate on the programming
language concepts before going further into the subject.

RESOURCES

PAID COURSES

Coding Minutes:

[Coding Minutes Courses](#)

Coding Blocks:

[Coding Blocks Courses](#)

Coding Ninjas:

[Coding Ninjas Courses](#)

UNPAID COURSES (YOUTUBE)

Kunal Kushwaha:

[Kunal Kushwaha - Java + DSA + Interview Preparation Course](#)

Apna College:

[Apna College -   C++ | Data Structures & Algorithms](#)

REFERENCE WEBSITES

Geeksforgeeks:

Data Structures - GeeksforGeeks

Programiz:

Programiz - Learn DS & Algorithms

Javatpoint:

javaTpoint - Data Structures Tutorial

THANK YOU!