

Course: Data Structure and algorithms using Java

Course Code: noc20-cs85

Session: 2020-21

Duration: 12 Weeks

Assessment procedures: Weekly Assignment (25%) + proctored certification Exam (75%)

Curriculum of the Course:

Week 1:

- 1D array
- list and vector
- 2D matrices and tables of objects

Week 2:

- Java implementation of 1D and 2D arrays and its operations

Week 3:

- Linked lists and its various operations
- stack and queue

Week 4:

- Java implementation of linked lists
- stack and queue

Week 5:

- Binary trees: Representation and operations.
- Variations of binary tree: Binary search tree
- Height balanced search tree
- Heap tree

Week 6:

- Java implementation of binary trees and its variations

Week 7:

- Graph : Structure
- representation and operations

Week 8:

- Java implementations of graph data structures

Week 9:

- Algorithms (Part-I): Searching and sorting algorithms

Week 10:

- Java implementation of Part-I algorithms

Week 11:

- Algorithms (Part-II): Greedy algorithms
- shortest path algorithms

Week 12:

- Java implementation of Part-II algorithms

List of students enrolled

S. No	Name of Student
1	Aditya Bhardwaj
2	Anagh Kumar
3	Anshita Raghuvanshi
4	Anshshikha agarwal
5	Roopal yadav
6	Chitwan Agarwal
7	VIJAY CHOUDHARY
8	Dinesh kumar tak
9	Farhan Rehman
10	Gaurav Vijayvergiya
11	Gaurav Agarwal
12	Govind sharma
13	Jayesh Soni
14	pooja jain
15	Kartik Dusad
16	Yash Khandelwal
17	Khushi
18	NIKHIL SHARMA
19	Nisha jain
20	OSWIN PATRICK ROZARIO
21	Prateek Goyal
22	PREKSHA AGRAWAL
23	Raghav Gupta
24	rohit agarwal
25	Saijal Gulyani
26	Aman Saini
27	Shivam choubisa
28	Shruti rawat
29	Sabhyata Agarwal
30	Jayesh soni
31	Suhani singhal
32	suryapratapsingh
33	sachin yadav

34	Vinit Kumar Shah
35	vishnu Sharma
36	Vishal prajapat
37	Yashwardhan Gaur