

Assignment 1

(1st and 2nd pref)

Deadline: 4th January 2022, 11:59 PM

Submission Link: <https://forms.gle/oyYW6emfJt3BJ4kB8>

Basic concepts of C/C++ Get very familiar with the following topics and make notes and submit it in the above link.

Object oriented languages are preferred by companies, so its better to practice C++ over C.

- Data Types
- Storage classes
- I/O
- Operators
- Arrays and Strings
- Control Statements
- Pointers
- Functions
- OOPs in C++
- Classes in C++, Constructors, Constructor Overloading
- Function Overloading
- Virtual Functions

Learn the differences between C++, Java and python. Make notes for the same.

Reference links

<https://www.geeksforgeeks.org/c-plus-plus/>

<https://www.geeksforgeeks.org/c-programming-language/>

Coding Practice

So for the coding practice, we will be using Leetcode and Hackerrank. Create a leetcode and hackerrank profile, and submit your profiles in the following link.

Deadline for this is 31/12/2021 11:59 PM

Submission LINK: <https://forms.gle/qQucSaN8wNVPLXdc8>

QUESTIONS:

ARRAYS:

· <https://www.hackerrank.com/interview/interview-preparation-kit/arrays/challenges>

Note: Solve the EASY and MEDIUM level question ONLY.

QUEUE:

Implement a queue using an array.

Implement a queue using 2 stacks.

Implement a queue using 1 stack.

Write the code for the questions above on paper and submit it using the submission link given on page 1.

· <https://www.hackerearth.com/practice/data-structures/arrays/1-d/practice-problems/algorithm/long-atm-queue-3/>

· <https://www.hackerearth.com/practice/data-structures/queues/basics-of-queues/practice-problems/algorithm/disk-tower-b7cc7a50/>

STACKS:

Implement a queue using a stack.

Implement a stack using a queue.

Write the code for the questions above on paper and submit it using the submission link given on page 1.

· <https://www.hackerearth.com/practice/data-structures/stacks/basics-of-stacks/practice-problems/algorithm/a-game-of-numbers-1-5d3a8cb3/>

· <https://www.hackerearth.com/practice/data-structures/stacks/basics-of-stacks/practice-problems/algorithm/little-shino-and-pairs/>