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| **Type of Data Structure**  Data structure Programming camp 2022 | **Name of the structure** | **Pre-requisite to implement** | **Sub-Type** | **Operation** | | **Practice** |
| Linear Data structure | Array | Declaration of array |  | Insertion  Deletion  Reverse | |  |
| Queue |  | Linear queue  circular queue  priority Queue | Push  pop | |  |
| Stack |  |  | Push  Pop | | Prefix,infix,postfix, |
| Linked list | Knowledge of pointer and dynamic memory allocation | Singly linked list  Doubly linked list  Circular linked list | Insertion  Deletion  Reverse | |  |
|  |  |  |  | |  |
|  |  |  |  | |  |
| Non-Linear Data structure | Tree | Previous data structure | Binary tree  Binary Search tree |  | |  |
| Graph | Knowledge about tree |  |  | |  |
|  |  |  |  | |  |
|  |  |  | |  |  |
| Heap |  |  | |  |  |
| Hashing |  |  | |  |  |

Others:

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| --- | --- |
| Sorting algorithm: | 1. Bubble sort 2. Selection sort 3. Insertion sort 4. Merge sort 5. Quick sort |
| Searching algorithm: | 1. Linear serch 2. Binary search |