

DATA STRUCTURE LAB (BCSP-303)

Course Outcomes:

1. Select appropriate data structures as applied to specified problem definition.
2. Implement operations like searching, insertion, and deletion, traversing mechanism etc. On various data structures.
3. Students will be able to implement Linear and Non-Linear data structures.
4. Implement appropriate sorting/searching technique for given problem.
5. Design advance data structure using Non-Linear data structure.
6. Determine and analyze the complexity of given Algorithms

List of Programs:

1. Implementation of Array ADT and String ADT
2. Programs for Stack, Queues and Circular Queues using Arrays
3. Program to convert an Infix Expression into Postfix and Postfix Evaluation
4. Program to implement a Singly Linked List
5. Programs to implement Stack & Queues using Linked Representation
6. Programs implement Double Linked List and Circular Linked List
7. Program for Polynomial Arithmetic using Linked List
8. Program to implement Hashing
9. Programs to implement Insertion Sort, Selection Sort, Heap Sort, and Shell Sort
10. Program to implement Quick Sort and Merge Sort
11. Programs to implement Tree Traversals on Binary Trees and Graphs Search Methods
12. Programs to implement operations on AVL Trees and Splay Trees