Indian Institute of Space Science and Technology
Thiruvananthapuram

AV 121 - Data Structures and Algorithms

Tutorial - II

1. Give a recursive method for removing all the elements from a stack.
2. Implement a function that reverses a list of elements by pushing them onto a stack in one order, and writing them back to the list in reversed order.
3. Write an algorithm to reverse a singly linked list.
4. Write a C++ program to delete a node from a header linked list.
5. Write an algorithm to concatenate two linked lists.
6. Write a program to copy the contents from one stack to another using classes.
7. Write a program to implement a stack using arrays.
8. What is a circular queue and how it is different from a linear queue.
9. Explain the concept of a queue using linked list and also write the enqueue() and dequeue() functions appropriately.
10. Write an algorithm for insertion and deletion in a queue using pointers.
11. Write a C++ program to implement Insertion sort. Also perform the time complexity analysis.