

MTH 307: Programming and Data Structures

Practice Assignment II

1. Write C programs to implement the following data structures.
 - (a) Stack and queue using array, instead of a linked list.
 - (b) Double linked list using the functions enlisted in 3.2.3 of the lesson plan.
 - (c) Double ended queue using the functions enlisted in 3.2.6 of the lesson plan.
 - (d) Binary tree using both the pre-order and post-order traversals for display.
 - (e) Circular queue - A queue in which the last position is connected back to the first position to make a circle.
2. Write separate C programs to implement the LFS and DFS search algorithms in a binary tree (see 4.3.2 of the lesson plan).
3. Write separate C programs to implement the linear and binary search algorithms (see 4.2 of the lesson plan).
4. Write separate C programs to implement the selection and quick sort algorithms (see 4.1.3 and 4.1.4 of the lesson plan) .