COEN 11 - Practice IV

Solutions on Wednesday

1. Define a singly-linked list, in which nodes are kept in order, smallest to largest number, i.e., the head always points to the node with the smallest node. The info in each node is an integer and a pointer to the next node.
   a. Define the node.
   b. Declare the variables required.
   c. Create a function to insert a node with the number received in the right spot.
   d. Create a function to delete a node with the number received.

2. Define a doubly-linked list, in which the nodes are not ordered, each node points to both the next and the previous nodes, and an extra tail pointer points to the last node. The info in the each node is an integer and two pointers, one to the previous and one to the next node.
   a. Define the node.
   b. Declare the variables required.
   c. Create a function to insert a node before (on the left) of the node indicated by the pointer received as argument.
   d. Create a function to delete a node indicated by a pointer received as argument.

3. Define a circular singly-linked list, in which the nodes are not ordered. In a circular list, the last node points to the first one. The info in the each node is an integer and a pointer to the next node.
   a. Define the node.
   b. Declare the variables required.
   c. Create a function to output the number in each node, starting at the head.
   d. Create a function to insert a node with the number received.
   e. Create a function to delete a node with the number received.