**Name:** Safyan Anwar

**Roll no:** 018

**Section:** 3A-BSSE

**Assignment #:** 9

**LAB TASK:**

**Code:**

**Explanation:**

**insertNode(Node\*& tail, int element, int d)**: Inserts a new node with data d after the node containing element. If the list is empty, it creates a new node and sets it as both head and tail.

**insertAtPosition(Node\*& tail, int position, int d)**: Inserts a node with data d at a specific position in the circular linked list. It calculates the length of the list first to check if the position is valid.

**insertAtCenter(Node\*& tail, int d)**: Inserts a node with data d at the middle position in the circular list. It calculates the middle position and calls insertAtPosition to insert the node.

**reverse(Node\*& tail)**:  
Reverses the circular linked list. Changes the next pointers of each node to point to the previous one, effectively reversing the list. The tail is updated after the reversal.

**print(Node\* tail)**: Prints all the nodes in the circular linked list. Starts at the node after tail (which is the head) and loops through until it circles back to the start. And see main function.