

**1. Write a program in C to create and display a circular linked list.**

**Test Data :**

Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 8

Expected Output :

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

**2. Write a program in C to insert a node at the beginning of a circular linked list.**

**Test Data and Expected Output :**

Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 8

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

Input data to be inserted at the beginning : 1

After insertion the new list are :

Data 1 = 1

Data 2 = 2

Data 3 = 5

Data 4 = 8

**3. Write a program in C to insert a node at the end of a circular linked list.**

**Test Data and Expected Output :**

Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 8

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

Input the data to be inserted : 9

After insertion the new list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

Data 4 = 9

**4. Write a program in C to insert a node at any position in a circular linked list.**

**Test Data and Expected Output :**

Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 8

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

Input the position to insert a new node : 3

Input data for the position 3 : 7

After insertion the new list are :

Data 1 = 2

Data 2 = 5

Data 3 = 7

Data 4 = 8

**5. Write a program in C to delete a node from the beginning of a circular linked list.**

**Test Data :**

Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 8

Expected Output :

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

The deleted node is -> 2

After deletion the new list are :

Data 1 = 5

Data 2 = 8

**6. Write a program in C to delete a node from the middle of a circular linked list.**

**Test Data and Expected Output :**

Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 8

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

Input the position to delete the node : 3

The deleted node is : 8

After deletion the new list are :

Data 1 = 2

Data 2 = 5

### **7. Write a program in C to delete the node at the end of a circular linked list.**

**Test Data and Expected Output :**

Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 8

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 8

The deleted node is : 8

After deletion the new list are :

Data 1 = 2

Data 2 = 5

### **8. Write a program in C to search an element in a circular linked list.**

**Test Data and Expected Output :**

Circular Linked List : Search an element in a circular linked list :

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Input the number of nodes : 3

Input data for node 1 : 2

Input data for node 2 : 5

Input data for node 3 : 9

Data entered in the list are :

Data 1 = 2

Data 2 = 5

Data 3 = 9

Input the element you want to find : 5

Element found at node 2