

## :: Linked List Codes ::

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**26.** Write a program which accept source singly linear linked list from user and copy the contents into

destination singly linear linked in descending order.

Function Prototype :

```
int CopyDsc(  
    struct node **Src struct node **Dest  
);
```

Input source linked list : |110|->|73|->|10|->|80|->|70|->|12|

Input destination linked list: Empty (NULL)

Output destination linked list: |110|->|80|->|73|->|70|->|12|->|10|

**27.** Write a program which accept source singly linear linked list from user and reverse that linear linked.

Function Prototype :

```
int ListReverse(  
    struct node **Src  
);
```

Input source linked list : |110|->|73|->|10|->|80|->|70|->|12|

Output source linked list: |12|->|70|->|80|->|10|->|73|->|110|

**28.** Write a program which accept singly linear linked list from user and check whether list contains loop or not.

Function Prototype :

```
int LoopChk(struct node *Src);
```

**29.** Write a program which accept two singly linear linked list and then merge this two list in such a way that resultant

may contain elements alternatively from one list and other list.

Input First linked list : | 10| -> | 20| -> | 30| -> | 40|

Input second linked list: | 50| -> | 60| -> | 70| -> | 80|

Output linked list: | 10| -> | 50| -> | 20| -> | 60| -> | 30| -> | 70| -> | 40| -> | 80|

**30.** Write a program which accept singly linear linked list and swap consecutive elements from that linked list.

Function Prototype :

```
int Swap(  
        struct node **Src  
        );
```

Input linked list : | 10| -> | 20| -> | 30| -> | 40| -> | 50| -> | 60| -> | 70| -> | 80| > | 90|

Output linked list : | 20| -> | 10| -> | 40| -> | 30| -> | 60| -> | 50| -> | 80| -> | 70| > | 90|

**31.**Write a program which accept source and destination linked list from user and we have to insert source linked list in

destination linked list at given position.

Function Prototype :

```
int InsertAt(  
            struct node **Src, struct node **dest, int pos  
            );
```

Input src linked list : |10|->|20|->|30|->|40|

Input dest linked list: |50|->|60|->|70|->|80|

Input position : 3

Output dest linked list: |50|->|60|->|10|->|20|->|30|->|40|->|70|>|80|

**32.**Write a program which accept singly linear linked list from user and reverse the linked list from particular range.

Function Prototype :

```
int ListRevRange(  
                struct node **Src int start, int end  
                );
```

Input linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

Input starting position : 3

Input ending position : 6

Input linked list : |10|->|20|->|60|->|50|->|40|->|30|->|70|

**33.** Write a program which accepts two singly linear linked list from user and check whether they are intersecting or not.

Function Prototype :

```
int ListIntersect(  
    struct node *First , struct node *Second  
);
```

**34.** Write a program which accept singly linear linked list from and check whether linked list is pallindrom or not.

Function Prototype :

```
int ListPallindrom(  
    struct node *First  
);
```

Input linked list : | 10 | -> | 20 | -> | 30 | -> | 40 | -> | 30 | -> | 20 | -> | 10 |

Output : The given linked list is pallindrom.

**35.** Write a program which accept singly linear linked list from user and sort that linked list in ascending order.

Function Prototype :

```
int ListSortAsc(  
    struct node **First  
);
```

Input linked list : | 60 | -> | 70 | -> | 50 | -> | 40 | -> | 30 | -> | 10 | -> | 20 |

Output linked list : | 10 | -> | 20 | -> | 30 | -> | 40 | -> | 50 | -> | 60 | -> | 70 |

**36.** Write a program which accept singly linear linked list from user and sort that linked list in descending order.

Function Prototype :

```
int ListSortDec(  
    struct node **First  
);
```

Input linked list : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Output linked list : |70|->|60|->|50|->|40|->|30|->|20|->|10|

**37.** Write a program which accepts two singly linear linked list from user and compare both linked list.

Function Prototype : int ListCmp(

```
    struct node *First, struct node *Second  
);
```

Input linked list 1 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Input linked list 2 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Output linked list : Both the linked list are equal.

**38.** Write a program which accepts two singly linear linked list from user and compare both linked list till first N nodes.

Function Prototype : int ListNCmp(

```
    struct node *First , struct node *Second , int N  
);
```

Input linked list 1 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Input linked list 2 : |60|->|70|->|50|->|40|->|80|->|30|->|70|

Input N : 4

Output linked list : Both the linked list are equal till node 4.

**39.** Write a program which accepts two singly linear linked list from user and compare both linked list but only last N nodes.

Function Prototype : int ListICmp(

struct node \*First, struct node \*Second, int N  
);

Input linked list 1 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Input linked list 2 : |40|->|80|->|70|->|60|->|30|->|10|->|20|

Input N : 3

Output linked list : Both the linked list are equal.

**40.** Write a program which accepts singly linear linked list from user and print middle node of list.

Function Prototype : int ListMid(

struct node \*First  
);

Input linked list : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Output : 40

\* Singly Circular Linked List :

41. Write a program which add new node in singly circular linked list at first position.

```
Function Prototype : int InsertFirst(  
                                struct node **Head, struct node **Tail, int no  
                                );
```

Input linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

Input data element : 21

Output linked list : |21|->|10|->|20|->|30|->|40|->|50|->|60|->|70|

42. Write a program which add new node in singly circular linked list at last position.

```
Function Prototype : int InsertLast(  
                                struct node **Head, struct node **Tail, int no  
                                );
```

Input linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

Input data element : 21

Output linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|->|21|

43. Write a program which add new node in singly circular linked list at specified position.

```
Function Prototype : int InsertAtPosition(  
                                struct node **Head, struct node **Tail, int  
no, int pos  
                                );
```

Input linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

Input data element : 21

Input position : 4

Output linked list : |10|->|20|->|30|->|21|->|40|->|50|->|60|->|70|

**44.**Write a program which remove first node from singly circular linked list.

Function Prototype : int DeleteFirst(  
struct node \*\*Head, struct node \*\*Tail  
);

Input linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

Output linked list : |20|->|30|->|40|->|50|->|60|->|70|

**45.**Write a program which remove last node from singly circular linked list.

Function Prototype : int DeleteLast(  
struct node \*\*Head, struct node \*\*Tail  
);

Input linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

Output linked list : |10|->|20|->|30|->|40|->|50|->|60|

**46.**Write a program which remove node from singly circular linked list which is at specified position.

Function Prototype : int DeleteAtPosition(  
struct node \*\*Head, struct node \*\*Tail, int pos  
);

Input linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

Input position : 4

Output linked list : |10|->|20|->|30|->|50|->|60|->|70|



**47.**Write a program which displays contents of singly circular linked list.

Function Prototype :

```
void Display(  
            struct node *Head , struct node *Tail  
            );
```

**48.**Write a program which search first occurrence of particular element from singly linear linked list.

Function should return position at which element is found.

```
Function Prototype : int SearchFirstOcc(  
                                     struct node *Head, struct node *Tail, int  
no                                     );
```

Input linked list : |10|->|20|->|30|->|40|->|50|->|30|->|70|

Input element : 30

Output : 3

**49.**Write a program which search last occurrence of particular element from singly circular linked list.

Function should return position at which element is found.

```
Function Prototype : int SearchLastOcc(  
                                     struct node *Head, struct node *Tail, int  
no                                     );
```

Input linked list : |10|->|20|->|30|->|40|->|50|->|30|->|70|

Input element : 30

Output : 6

**50.** Write a program which search second last occurrence of particular element from singly circular linked list.

Function should return position at which element is found.

Function Prototype : int SearchSecLastOcc(  
struct node \*Head, struct node \*Tail, int  
no  
);

Input linked list : |10|->|20|->|30|->|40|->|30|->|30|->|70|

Input element : 30

Output : 5

**51.** Write a program which searches all occurrence of particular element from singly circular linked list.

Function should return number of occurrence of that element.

Function Prototype : int SearchAll(  
struct node \*Head, struct node \*Tail, int no  
);

Input linked list : |10|->|20|->|30|->|40|->|30|->|30|->|70|

Input element : 30

Output : 3

**52.** Write a program which accept two singly circular linked list from user and concat source linked list after destination

linked list.

```
Function Prototype : int ConcatList(  
                                struct node **SrcHead, struct node  
**SrcTail, struct node **DestHead, struct node **DestTail  
                                );
```

Input source linked list : | 30 | -> | 30 | -> | 70 |

Input destination linked list : | 10 | -> | 20 | -> | 30 | -> | 40 |

Output destination linked list : | 10 | -> | 20 | -> | 30 | -> | 40 | -> | 30 | -> | 30 | -> | 70 |

**53.** Write a program which accept two singly circular linked list from user and concat first N elements of source linked list

after destination linked list.

```
Function Prototype : int ConcatFirstN(  
                                struct node **SrcHead, struct node **SrcTail,  
struct node **DestHead, struct node **DestTail, int no  
                                );
```

Input source linked list : | 30 | -> | 30 | -> | 70 |

Input destination linked list : | 10 | -> | 20 | -> | 30 | -> | 40 |

Input number of elements : 2

Output destination linked list : | 10 | -> | 20 | -> | 30 | -> | 40 | -> | 30 | -> | 30 |

**54.** Write a program which accept singly circular linked list from and check whether linked list is pallindrom or not.

Function Prototype : int ListPallindrom(  
struct node \*First, struct node \*Tail  
);

Input linked list : |10|->|20|->|30|->|40|->|30|->|20|->|10|

Output : The given linked list is pallindrom.

**55.** Write a program which accept singly linear linked list from user and sort that linked list in ascending order.

Function Prototype : int ListSortAsc(  
struct node \*\*Head, struct node \*\*Tail  
);

Input linked list : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Output linked list : |10|->|20|->|30|->|40|->|50|->|60|->|70|

**56.** Write a program which accept singly linear linked list from user and sort that linked list in descending order.

Function Prototype : int ListSortDec(  
struct node \*\*Head, struct node \*\*Tail  
);

Input linked list : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Output linked list : |70|->|60|->|50|->|40|->|30|->|20|->|10|

**57.** Write a program which accepts two singly linear linked list from user and compare both linked list.

Function Prototype : int ListCmp(  
struct node \*SrcHead, struct node \*SrcTail, struct  
node \*DestHead, struct node \*DestTail  
);

Input linked list 1 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Input linked list 2 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Output : Both lists are equal.

**58.** Write a program which accepts two singly linear linked list from user and compare both linked list till first N nodes.

Function Prototype : int ListNCmp(  
struct node \*SrcHead, struct node \*SrcTail, struct  
node \*DestHead, struct node \*DestTail, int N  
);

Input linked list 1 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Input linked list 2 : |60|->|70|->|50|->|40|->|80|->|30|->|70|

Input N : 4

Output linked list : Both the linked list are equal till node 4.

**59.** Write a program which accepts two singly linear linked list from user and compare both linked list but only last N nodes.

Function Prototype : int ListLCmp(  
struct node \*SrcHead, struct node \*SrcTail, struct node  
\*DestHead, struct node \*DestTail, int N  
);

Input linked list 1 : |60|->|70|->|50|->|40|->|30|->|10|->|20|

Input linked list 2 : |40|->|80|->|70|->|60|->|30|->|10|->|20|

Input N : 3

Output linked list : Both the linked list are equal.

\* Doubly Linear Linked List

60. Write a program which add new node in doubly linear linked list at first position.

Function Prototype : int InsertFirst(  
struct node \*\*Head, int no  
);

Input linked list : |20|<=>|30|<=>|40|<=>|50|<=>|60|

Input data element : 21

Output linked list : |21|<=>|20|<=>|30|<=>|40|<=>|50|<=>|60|

61. Write a program which add new node in doubly linear linked list at last position.

Function Prototype : int InsertLast(  
struct node \*\*Head, int no  
);

Input linked list : |20|<=>|30|<=>|40|<=>|50|<=>|60|<=>|70|

Input data element : 21

Output linked list |20|<=>|30|<=>|40|<=>|50|<=>|60|<=>|70|<=>|21|

62. Write a program which add new node in doubly linear linked list at specified position.

Function Prototype : int InsertAtPosition(  
struct node \*\*Head, int no, int pos  
);

Input linked list : |20|<=>|30|<=>|40|<=>|50|<=>|60|

Input data element : 21

Input position : 3

Output linked list : |20|<=>|30|<=>|21|<=>|40|<=>|50|<=>|60|

**63.** Write a program which remove first node from doubly linear linked list.

Function Prototype : int DeleteFirst(  
struct node \*\*Head  
);

Input linked list : |10|<=>|20|<=>|30|<=>|40|<=>|50|

Output linked list : |20|<=>|30|<=>|40|<=>|50|

**64.** Write a program which remove last node from doubly linear linked list.

Function Prototype : int DeleteLast(  
struct node \*\*Head  
);

Input linked list : |10|<=>|20|<=>|30|<=>|40|<=>|50|

Output linked list : |10|<=>|20|<=>|30|<=>|40|

**65.** Write a program which remove node from doubly linear linked list which is at specified position.

Function Prototype : int DeleteAtPosition(  
struct node \*\*Head, int no, int pos  
);

```
struct node **Head, int pos  
);
```

Input linked list : |10| <=> |20| <=> |30| <=> |40| <=> |50|

Input position : 4

Output linked list : |10| <=> |20| <=> |30| <=> |50|

**66.** Write a program which displays contents of doubly linear linked list.

Function Prototype : int Display( struct node \*Head );

**67.** Write a program which search first occurrence of particular element from doubly linear linked list.

Function should return position at which element is found.

```
Function Prototype : int SearchFirstOcc(  
struct node *Head , int no  
);
```

Input linked list : |10| <=> |20| <=> |30| <=> |40| <=> |50|

Input element : 30

Output : 3

**68.** Write a program which search last occurrence of particular element from doubly linear linked list.

Function should return position at which element is found.

```
Function Prototype : int SearchLastOcc(  
struct node *Head, int no  
);
```



Input linked list : |10| <=> |20| <=> |30| <=> |40| <=> |50| <=> |30|

Input element : 30

Output : 6

**69.** Write a program which search second last occurrence of particular element from doubly linear linked list.

Function should return position at which element is found.

Function Prototype : int SearchSecLastOcc(  
struct node \*Head, int no  
);

Input linked list : |20| <=> |30| <=> |40| <=> |30| <=> |30| <=> |70|

Input element : 30

Output : 5

**70.** Write a program which searches all occurrence of particular element from doubly linear linked list.

Function should return number of occurrence of that element.

Function Prototype : int SearchAll(  
struct node \*Head, int no  
);

Input linked list : |10| <=> |20| <=> |30| <=> |40| <=> |30| <=> |30|

Input element : 30

Output : 3

**71.** Write a program which accept two doubly linear linked list from user and concat source linked list after destination linked list.

Function Prototype : int ConcatList(  
struct node \*\*Src , struct node \*\*Dest  
);

Input source linked list : | 30 | <=> | 70 |

Input destination linked list : | 10 | <=> | 20 | <=> | 30 |

Output : | 30 | <=> | 70 | <=> | 10 | <=> | 20 | <=> | 30 |

**72.** Write a program which accept two doubly linear linked list from user and concat first N elements of source linked list after

destination linked list.

Function Prototype : int ConcatFirstN(  
struct node \*\*Src, struct node \*\*Dest, int  
no  
);

Input source linked list : | 30 | <=> | 30 | <=> | 70 |

Input destination linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 |

Input number of elements : 2

Output destination list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 | <=> | 30 | <=> | 30 |

**73.** Write a program which accepts two doubly linear linked list from user and concat last N elements of source linked list

after destination linked list.

Function Prototype : int ConcatLastN(  
struct node \*\*Src, struct node \*\*Dest, int  
no  
);

no

```
struct node **Src, struct node **Dest, int
```

```
);
```

Input source linked list : | 30 | <=> | 30 | <=> | 70 |

Input destination linked list : | 20 | <=> | 30 | <=> | 40 |

Input number of elements : 2

Output destination linked list : | 20 | <=> | 30 | <=> | 40 | <=> | 30 | <=> | 70 |

**74.** Write a program which accepts two doubly linear linked list from user and also accept range and concat elements of source

singly linear linked list from that range after doubly linear destination linked list.

Function Prototype : int ConcatListRange(

```
struct node **Src , struct node **Dest, int
```

```
start , int end
```

```
);
```

Input source linked list : | 30 | <=> | 30 | <=> | 70 | <=> | 80 | <=> | 90 | <=> | 100 |

Input destination linked list : | 30 | <=> | 40 |

Input starting range : 2

Input ending range : 5

Output destination list: | 30 | <=> | 40 | <=> | 30 | <=> | 70 | <=> | 80 | <=> | 90 |

**75.** Write a program which copies contents of source doubly linear linked list to doubly linear destination linked list.

Function Prototype : int LLCopy(

```
struct node **Src struct node **Dest
```

```
);
```

**76.**Write a program which copies first N contents of doubly linear source linked list to destination doubly linear linked list.

Function Prototype : int LLNCopy(  
struct node \*\*Src struct node \*\*Dest int no  
);

Input source linked list : | 30 | <=> | 30 | <=> | 70 | <=> | 80 | <=> | 90 | <=> | 100 |

Input destination linked list : Empty (NULL)

Input no : 4

Output destination linked list : | 30 | <=> | 30 | <=> | 70 | <=> | 80 |

**77.**Write a program which copies last N contents of source doubly linear linked list to destination doubly linear linked list.

Function Prototype : int LLINCopy(  
struct node \*\*Src, struct node \*\*Dest, int no  
);

Input source linked list : | 30 | <=> | 30 | <=> | 70 | <=> | 80 | <=> | 90 | <=> | 100 |

Input destination linked list : Empty (NULL)

Input no : 4

Output destination linked list : | 70 | <=> | 80 | <=> | 90 | <=> | 100 |

**78.**Write a program which copies contents of source doubly linear linked list to destination doubly linear linked list

which lies between the particular range which is accepted from user.

Function Prototype : int LLCopyRange(  
struct node \*\*Src ,struct node \*\*Dest , int start,  
int end

);

Input source linked list : | 30 | <=> | 30 | <=> | 70 | <=> | 80 | <=> | 90 | <=> | 100 |

Input destination linked list : Empty (NULL)

Input starting range : 2

Input starting range : 5

Output destination linked list : | 30 | <=> | 70 | <=> | 80 | <=> | 90 |

**79.** Write a program which copies alternate contents of source doubly linear linked list to destination doubly linear linked list.

Function Prototype : int LLCopyAlt(  
  struct node \*\*Src, struct node \*\*Dest  
  );

Input src list: | 30 | <=> | 30 | <=> | 70 | <=> | 80 | <=> | 90 | <=> | 100 | <=> | 110 |

Input destination linked list : Empty (NULL)

Output destination linked list : | 30 | <=> | 70 | <=> | 90 | <=> | 110 |

**80.** Write a program which copies contents of source doubly linear linked list whose addition of digits is even number

to destination doubly linear linked list.

Function Prototype : int LLCopyEx(  
  struct node \*\*Src, struct node \*\*Dest  
  );

Input src list : | 30 | <=> | 33 | <=> | 73 | <=> | 80 | <=> | 90 | <=> | 100 | <=> | 110 |

Input destination linked list : Empty (NULL)

Output destination linked list : | 33 | <=> | 77 | <=> | 110 |

**81.**Write a program which copies contents of source doubly linear linked list whose addition of digits is prime number

to destination doubly linear linked list.

Function Prototype : int LLCopyEx(

struct node \*\*Src, struct node \*\*Dest  
);

Input src list: | 30 | <=> | 32 | <=> | 73 | <=> | 80 | <=> | 70 | <=> | 110 | <=> | 112 |

Input destination linked list : Empty (NULL)

Output destination linked list : | 30 | <=> | 30 | <=> | 70 |

**82.**Write a program which accept source doubly linear linked list and destination doubly linear linked list and

check whether source list is sub list of destination list. Function returns first position at which sub list found.

Function Prototype : int SubList(

struct node \*\*Src, struct node \*\*Dest  
);

Input source linked list : | 73 | <=> | 80 | <=> | 70 |

Input dest list: | 80 | <=> | 17 | <=> | 22 | <=> | 73 | <=> | 80 | <=> | 70 |

Output : First Sub list found at position 4

**83.**Write a program which accept source doubly linear linked list and destination doubly linear linked list and

check whether source list is sub list of destination list. Function returns last position at which sub list found.

Function Prototype : int SubList(  
struct node \*\*Src, struct node \*\*Dest  
);

Input source linked list : |73|<=>|80|<=>|70|

Input dest list: |73|<=>|80|<=>|70|<=>|22|<=>|73|<=>|80|<=>|70|

Output : Last Sub list found at position 5

**84.** Write a program which accept source doubly linear linked list from user and copy the contents into destination doubly linear linked in ascending order.

Function Prototype : int CopyAsc(  
struct node \*\*Src , struct node \*\*Dest  
);

Input source linked list : |73|<=>|10|<=>|80|<=>|70|<=>|12|

Input destination linked list: Empty (NULL)

Output destination linked list: |10|<=>|12|<=>|70|<=>|73|<=>|80|

**85.** Write a program which accept source doubly linear linked list from user and copy the contents into destination doubly linear linked in descending order.

Function Prototype : int CopyDsc(  
struct node \*\*Src, struct node \*\*Dest  
);

Input source linked list : |73|<=>|10|<=>|80|<=>|70|<=>|12|

Input destination linked list: Empty (NULL)

Output destination linked list: |80|<=>|73|<=>|70|<=>|12|<=>|10|

**86.**Write a program which add new node in singly circular linked list at first position.

Function Prototype : int InsertFirst(

struct node \*\*Head, struct node \*\*Tail, int no  
);

Input linked list : |30|<=>|40|<=>|50|<=>|60|<=>|70|

Input data element : 21

Output linked list : |21|<=>|30|<=>|40|<=>|50|<=>|60|<=>|70|

**87.**Write a program which add new node in singly circular linked list at last position.

Function Prototype : int InsertLast(

struct node \*\*Head, struct node \*\*Tail, int  
no  
);

Input linked list : |30|<=>|40|<=>|50|<=>|60|<=>|70|

Input data element : 21

Output linked list : |30|<=>|40|<=>|50|<=>|60|<=>|70|<=>|21|

**88.**Write a program which add new node in singly circular linked list at specified position.

Function Prototype : int InsertAtPosition(

struct node \*\*Head, struct node \*\*Tail, int no,  
int pos



);

Input linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 | <=> | 50 | <=> | 60 |

Input data element : 21

Input position : 4

Output linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 | <=> | 50 | <=> | 60 |

**89.** Write a program which remove first node from singly circular linked list.

Function Prototype : int DeleteFirst(

struct node \*\*Head, struct node \*\*Tail

);

Input linked list : | 40 | <=> | 50 | <=> | 60 | <=> | 70 |

Output linked list : | 50 | <=> | 60 | <=> | 70 |

**90.** Write a program which remove last node from singly circular linked list.

Function Prototype : int DeleteLast(

struct node \*\*Head, struct node \*\*Tail

);

Input linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 |

Output linked list : | 10 | <=> | 20 | <=> | 30 |

**91.** Write a program which remove node from singly circular linked list which is at specified position.

Function Prototype : int DeleteAtPosition(

struct node \*\*Head, struct node \*\*Tail, int

pos

);

Input linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 | <=> | 50 |

Input position : 4

Output linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 50 |

**92.** Write a program which displays contents of singly circular linked list.

Function Prototype : void Display( struct node \*Head struct node \*Tail);

**93.** Write a program which search first occurrence of particular element from singly linear linked list.

Function should return position at which element is found.

Function Prototype : int SearchFirstOcc(  
struct node \*Head, struct node \*Tail, int no  
);

Input linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 | <=> | 50 | <=> | 30 |

Input element : 30

Output : 3

**94.** Write a program which search last occurrence of particular element from singly circular linked list.

Function should return position at which element is found.

Function Prototype : int SearchLastOcc(  
struct node \*Head, struct node \*Tail, int no  
);

Input linked list : |10| <=> |20| <=> |30| <=> |40| <=> |50| <=> |30|

Input element : 30

Output : 6

**95.** Write a program which search second last occurrence of particular element from doubly circular linked list.

Function should return position at which element is found.

Function Prototype : int SearchSecLastOcc(  
no struct node \*Head, struct node \*Tail, int  
);

Input linked list : |10| <=> |20| <=> |30| <=> |40| <=> |30| <=> |30|

Input element : 30

Output : 5

**96.** Write a program which searches all occurrence of particular element from doubly circular linked list.

Function should return number of occurrence of that element.

Function Prototype : int SearchAll(  
struct node \*Head, struct node \*Tail, int no  
);

Input linked list : |10| <=> |20| <=> |30| <=> |40| <=> |30| <=> |30|

Input element : 30

Output : 3

**97.** Write a program which accept two doubly circular linked list from user and concat source linked list after destination

linked list.

Function Prototype : int ConcatList(  
struct node \*\*SrcHead, struct node \*\*SrcTail,  
struct node \*\*DestHead, struct node \*\*DestTail  
);

Input source linked list : | 30 | <=> | 30 | <=> | 70 |

Input destination linked list : | 10 | <=> | 20 |

Output destination linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 30 | <=> | 70 |

**98.** Write a program which accept two doubly circular linked list from user and concat first N elements of source linked list

after destination linked list.

Function Prototype : int ConcatFirstN(  
struct node \*\*SrcHead, struct node \*\*SrcTail,  
struct node \*\*DestHead, struct node \*\*DestTail, int no  
);

Input source linked list : | 30 | <=> | 30 | <=> | 70 |

Input destination linked list : | 30 | <=> | 40 |

Input number of elements : 2

Output destination linked list : | 30 | <=> | 40 | <=> | 30 | <=> | 30 |

**99.** Write a program which accept doubly circular linked list from and check whether linked list is pallindrom or not.

Function Prototype : int ListPallindrom(  
struct node \*First, struct node \*Tail

);

Input linked list : | 10 | <=> | 20 | <=> | 30 | <=> | 40 | <=> | 30 | <=> | 20 |

Output : The given linked list is pallindrom.

**100.** Write a program which accept doubly linear linked list from user and sort that linked list in ascending order.

Function Prototype : int ListSortAsc(

struct node \*\*Head, struct node \*\*Tail

);

Input linked list : | 60 | <=> | 70 | <=> | 50 | <=> | 40 | <=> | 30 | <=> | 10 |

Output linked list : | 10 | <=> | 30 | <=> | 40 | <=> | 50 | <=> | 60 | <=> | 70 |