LAB 09   NAME: CHIRAG

USN: IBM19CS039

```
NODE  insert_leftpos (int item, NODE head)
{
    NODE  cur, prev, temp;
    if (head -> rlink ==head)
    {
        printf (" List is empty \n");
        return head;
    }

    cur =head -> rlink;
    while (cur! =head)
    {
        if (cur ->info >= item)
        {
            break;
        }
            cur = cur ->rlink;
    }
    if (cur== head)
    {
        printf (" No such item found \n");
        return head;
    }

    prev =cur ->llink;
    temp = getnode();
    temp ->llink = NULL;
    temp ->rlink = NULL;
    printf (" Enter item to be inserted at left :\n");
```

```c
        scanf ("%d", &temp -> info);
        prev -> rlink = temp;
        temp -> llink = prev;
        temp -> rlink = cur;
        cur -> llink = temp;
        return head;
}


NODE  delete - key (int item, NODE head)
{

NODE  Prev, cur, next;
int count;
  if ( head ->rlink == head)
    {

        printf (" LE");
        return  head;
    }
count = 0;
cur = head -> rlink;
while ( cur ! = head)
  {

    if (item! = cur -> info)
    cur = cur -> rlink;
      else
      {

        count ++;
        prev = cur -> llink;
        next = cur -> rlink;
        prev -> rlink = next;
        next -> llink = prev;
```

```
            freenode (cur);
            cur = next;
        }
    }

if (count = =0)
        printf ("key not found");
else
        printf ("key found in %d postions and are Deleted, count);
return head;
}




void display (NODE head)
{
    NODE temp;
    if (head ->rlink == head)
    {
        printf ("List Empty. Cannot Display Items");
        return;
    }

        printf ("contents of list 1.");
        temp = tem-> rlink;
        while (temp! = head)
        {
            printf ("%d", temp ->info);
            temp= temp ->rlink;
        }
}
```