

```

#include <stdio.h>
#include <conio.h>

int empty(int);
void makeempty(int *) ;
int create (int a[],int *);
void insert(int a[],int *,int);
int find(int a[],int *,int,int *);
void displaylist(int a[],int *) ;
void deleteitem(int a[],int *,int) ;
int kelement (int a[],int);

void main()
{int ch,item,pos,l,n=-1,a[100],start ;
clrscr();
do
{ printf("\n\n Enter 1 to create list \n Enter 2 to insert an element \n Enter 3 to find an
element \n Enter 4 to display list \n Enter 5 to delete an element \n Enter 6 to find kth
element \n Enter 7 to make the list empty \n Enter 8 to exit\n") ;
scanf("%d",&ch);

switch (ch)
{
case 1: n=create(a,&n);
break;

case 2: printf("Enter Element ");
scanf("%d",&item) ;
insert(a,&n,item);
break;

case 3: start=0 ;
printf("Enter element to be found ");
scanf("%d",&item);
while(1)
{
l=find(a,&n,item,&start);
if (l== -1)
{ printf("\nEnd of Search") ;
break ;
}
else
printf("\nElement found at %d",l+1);
}
break;

case 4: displaylist(a,&n);
break;

case 5: printf("Enter element to be deleted ");
scanf("%d",&item);
deleteitem(a,&n,item);
break;

case 6: printf("Enter position ");
scanf("%d",&pos);
l=kelement(a,pos);
printf("Element at given position = %d",l);
break ;

case 7: makeempty(&n);
}
}while(ch!=8); }

int isempty(int *n)
{
if (*n== -1)
return 1;
else
return 0;
}

```

```

void makeempty(int *n)
{ *n=-1 ;}

int create (int a[],int *n)
{ int i=1 ;
  if (*n!=-1)
  {
    printf("\nCareful!!! Data will be Overwritten.....Enter 0 to Cancel ");
    scanf("%d",&i) ;
  }
  if(i==1)
  {printf("\nEnter the number of Elements ");
    scanf("%d",n);

    for(i=0;i<*n;i++)
    {
      printf("Enter Element no %d : ",i+1);
      scanf("%d",&a[i]) ;
    }
  }
  return *n ;
}

void insert(int a[],int *n,int item)
{ *n=*n+1 ;
  a[*n-1]=item;
}

void displaylist(int a[],int *n)
{
  int i;
  for(i=0;i<*n;i++)
    printf("%d ",a[i]);
}

void deleteitem (int a[],int *n,int item)
{
  int i,j,x;
  printf("\nEnter 1 to delete only First entry or Other Value to delete all ");
  scanf("%d",&x) ;
  for(i=0;i<*n;i++)
    if(a[i]==item)
    {
      printf("\nItem Deleted at Position %d",i+1) ;
      for(j=i;j<(*n)-1;j++)
        a[j]=a[j+1];
      *n=*n-1 ;
      i--;
      if(x==1)
        break;
    }
}

int find (int a[],int *n,int item,int *start)
{int i;
  for (i=*start;i<*n;i++)
    if(a[i]==item)
    { *start=i+1;
      return i;}
  return -1 ;
}

int kelement (int a[],int pos)
{return a[pos-1] ;}

```