

Ordered list

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
#define MAX 5
```

```
int list[MAX];
```

```
int len=0,i;
```

```
int search(int);
```

```
void insert(int);
```

```
void del(int);
```

```
void display();
```

```
main(){
```

```
    int n;
```

```
    do{
```

```
        printf("Enter your choice: \n1. Insert\n2. Delete\n3. Display\n4.STOP \n");
```

```
        scanf("%d",&n);
```

```
        if(n==1){
```

```
            int e;
```

```
            printf("Enter element to insert: ");
```

```
            scanf("%d",&e);
```

```
            insert(e);
```

```
        }
```

```

        else if(n==2){
            int e;

            printf("Enter element to be deleted: ");

            scanf("%d",&e);

            del(e);
        }

        else if(n==3){
            display();
        }

        else if(n==4)
            break;
    }while(1);
}

```

```

int search(int e){
    for(i=0;i<len;i++){
        if(list[i]==e)
            return i;
    }

    return -1;
}

```

```

void insert(int e){
    if(len==MAX)

        printf("LIST FULL!\n");
}

```

```
else{

    int p=len;

    for(i=0;i<len;i++){

        if(list[i]>e){

            p=i;

            break;

        }

    }

    for(i=len-1;i>=p;i--)

        list[i+1]=list[i];

    list[p]=e;

    len++;

}

}
```

```
void del(int e){

    int s=search(e);

    if(s==-1 || len==0)

        printf("Element not found OR list empty\n");

    else{

        for(i=s+1;i<len;i++)

            list[i-1]=list[i];

        len--;

    }

}
```

```

    }
}

void display(){
    if(len){
        for(i=0;i<len;i++)
            printf("%d ",list[i]);
        printf("\n");
    }
    else
        printf("List empty\n");
}

```

Unordered list

```

#include<stdio.h>

#include<conio.h>

#define MAX 5

int list[MAX];

int len=0,i;

void insert(int,int);

void del(int);

void display();

```

```

main(){
    int n;

    do{

        printf("Enter your choice: \n1. Insert\n2. Delete\n3. Display\n4.STOP \n");

        scanf("%d",&n);

        if(n==1){

            int e,p;

            printf("Enter element to insert and the position: ");

            scanf("%d %d",&e,&p);

            insert(e,p-1);

        }

        else if(n==2){

            int e;

            printf("Enter position: ");

            scanf("%d",&e);

            del(e-1);

        }

        else if(n==3){

            display();

        }

        else if(n==4)

            break;

    }while(1);

}

```

```

void insert(int e,int p){
    if(len==MAX || (p<0 || p>len))
        printf("LIST FULL! OR Invalid position\n");
    else{
        for(i=len-1;i>=p;i--)
            list[i+1]=list[i];

        list[p]=e;
        len++;
    }
}

```

```

void del(int p){
    if((p<0 || p>=len) || len==0)
        printf("Invalid position OR list empty\n");
    else{
        for(i=p+1;i<len;i++)
            list[i-1]=list[i];

        len--;
    }
}

```

```

void display(){

```

```
if(len){  
    for(i=0;i<len;i++)  
        printf("%d  ",list[i]);  
    printf("\n");  
}  
else  
    printf("List empty\n");  
}
```