//lab prgm2

#include <stdio.h>

#include<stdlib.h>

int a[20],n,pos,elem;

int n=0;

void create();

void display();

void insert();

void delete();

void main()

{

int choice;

while(1)

{

printf("\n~~~~~~~~~~MENU~~~~~~~~~");

printf("\n=>1: Create an array of N integers");

printf("\n=>2: display of array elements");

printf("\n=>3.Insert element at a given position");

printf("\n=>4.delete element at a given position");

printf("\n=>5.enter the choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:create();

break;

case 2:display();

break;

case 3:insert();

break;

case 4:delete();

break;

default:printf("enter a valid choice");

}

}

}

void create()

{

int i;

printf("\nEnter the number of elements:");

scanf("%d",&n);

printf("\nEnter the elements");

for(i=0;i<=n;i++)

{

scanf("%d",&a[i]);

}

}

void display()

{

int i;

if(n==0)

{

printf("\n No element to display");

return;

}

printf("\n Array elements are");

for(i=0;i<n;i++)

printf("%d\t",a[i]);

}

void insert()

{

int i;

if(n==5)

{

printf("\n Array is full Insertion is not possible");

return;

}

do

{

printf("\nenter a valid position where to be inserted");

scanf("%d",&pos);

}

while(pos>n);

printf("\n enter the value to be inserted:");

scanf("%d",&elem);

for(i=n-1;i>=pos;i--);

{

a[i+1]=a[i];

}

a[pos]=elem;

n=n+1;

display();

}

void delete()

{

int i;

if(n==0)

{

printf("Array is empty and no element to delete");

return;

}

do

{

printf("\n Enter a valid position from where element to be deleted: ");

scanf("%d",&pos);

}while(pos>=n);

elem=a[pos];

printf("\nDeleted element is :%d\n",elem);

for(i=pos;i<n-1;i++);

{

a[i]=a[i+1];

}

n=n-1;

display();

}