// 1.Design, Develop and Implement a menu driven Program in C for the following Array operations a. Creating an Array of N Integer Elements b. Display of Array Elements with Suitable Headings c. Inserting an Element (ELEM) at a given valid Position (POS) d. Deleting an Element at a given valid Position (POS) e.Exit. Support the program with functions for each of the above operations.

#include<stdio.h>

#include<stdlib.h>

int a[20];

int n,val,i,pos;

void create();

void display();

void insert();

void delete();

int main()

{

int choice;

while(choice)

{

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

printf("1.CREATE\n");

printf("2.DISPLAY\n");

printf("3.INSERT\n");

printf("4.DELETE\n");

printf("5.EXIT\n");

printf(" -------------------- ");

printf("\nENTER YOUR CHOICE:\t"); scanf("%d",&choice);

switch(choice)

{

case 1: create();break;

case 2: display();break;

case 3: insert();break;

case 4: delete();break;

case 5: exit(0);break;

default: printf("\nInvalid choice:\n"); break;

}

}

return 0;

}

void create()

{

printf("\nEnter the size of the array elements:\t");

scanf("%d",&n);

printf("\nEnter the elements for the array:\n");

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

{

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

}

}

void display()

{

int i;

printf("\nThe array elements are:\n");

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

{

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

}

}

void insert()

{

printf("\nEnter the position for the new element:\t");

scanf("%d",&pos);

printf("\nEnter the element to be inserted :\t");

scanf("%d",&val);

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

{

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

}

a[pos]=val;

n=n+1;

}

void delete()

{

printf("\nEnter the position of the element to be deleted:\t");

scanf("%d",&pos);

val=a[pos];

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

{

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

}

n=n-1;

printf("\nThe deleted element is =%d",val);

}