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**Practical – 5: Program to implement One-Dimensional Array**

1. **Program that simply takes elements of the array from the user and finds the sum of these elements.**

#include<stdio.h>

#include<conio.h>

void main()

{

void input(int a[],int r);

void sum(int a[],int r1,int s);

int a[10],r;

input(a,10);

sum(a,10,0);

getch();

}

void input(int a[],int r)

{

int i;

printf("Enter elements\n");

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

{

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

}

}

void sum(int a[],int c,int s)

{

int i;

s=0;

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

{

s=s+a[i];

}

printf("Sum is %d",s);

}

1. **Program that inputs two arrays and saves sum of corresponding elements of these arrays in a third array and prints them.**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10],b[10],i,c[10];

printf("Enter 1st array elements\n");

for(i=0;i<10;i++)

{

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

}

printf("\nEnter 2nd array elements\n");

for(i=0;i<10;i++)

{

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

}

for(i=0;i<10;i++)

{

c[i]=a[i]+b[i];

}

for(i=0;i<10;i++)

{

printf("%d ",c[i]);

}

getch();

}

1. **Program to find the minimum and maximum element of the array.**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10],i,min,max;

printf("Enter elements\n");

for(i=0;i<10;i++)

{

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

}

max=min=a[0];

for(i=1;i<10;i++)

{

if(min>a[i])

min=a[i];

if(max<a[i])

max=a[i];

}

printf("minimum element is %d",min);

printf("\nmaximum element is %d",max);

getch();

}

1. **Program to search an element in a array using Linear Search.**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10],i,num;

printf("Enter elements\n");

for(i=0;i<10;i++)

{

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

}

printf("\nEnter element to search:");

scanf("%d",&num);

for(i=0;i<10;i++)

{

if(a[i]==num)

{

printf("Element found at %d",i+1);

break;

}

}

if(i==10)

{

printf("\nElement not found\n");

}

getch();

}

1. **Program to sort the elements of the array in ascending order using Bubble Sort technique.**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10],i,j,pass,temp;

printf("Enter element\n");

for(i=0;i<10;i++)

{

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

}

for(pass=1;pass<10;pass++)

{

for(j=0;j<10-pass;j++)

{

if(a[j+1]<a[j])

{

temp=a[j+1];

a[j+1]=a[j];

a[j]=temp;

}

}

}

for(i=0;i<10;i++)

{

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

}

getch();

}

1. **Program to print the elements of the array in reverse order.**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10],i,temp;

printf("Enter elements to reverse\n");

for(i=0;i<10;i++)

{

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

}

for(i=0;i<10/2;i++)

{

temp=a[i];

a[i]=a[10-i-1];

a[10-i-1]=temp;

}

for(int i = 0; i < 10; i++){

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

}

getch();

}

1. **Write a program to find the sum of even numbers in the array**

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10],i,ev=0;

printf("Enter elements\n");

for(i=0;i<10;i++)

{

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

}

for(i=0;i<10;i++)

{

if(a[i]%2==0)

{

ev=ev+a[i];

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

}}

printf("\nSum of even elements are %d",ev);

getch();

}