DAY\_17\_18

1. Write a program in C to enter marks of 10 students and print their marks. Find highest marks. (Hint : Use array)

#include<stdio.h>

#include<conio.h>

void main()

{

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

clrscr();

// read

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

{

printf("\n\n\t Enter student %d marks =>",i+1);

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

}

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

{

if ( a[i] > max )

{

max = a[i];

}

}

printf("\n\n\t Maximum number is => %d",max);

getch();

}

OUTPUT :

Enter student 1 marks =>55

Enter student 2 marks =>33

Enter student 3 marks =>56

Enter student 4 marks =>45

Enter student 5 marks =>77

Enter student 6 marks =>89

Enter student 7 marks =>98

Enter student 8 marks =>65

Enter student 9 marks =>54

Enter student 10 marks =>43

Maximum number is => 98

2 Create an array (marks) of 10 elements. Assign initial value between 0 to 100 to each element. Write a code to perform summation of array elements of given range. User will give the range. For example:

Enter Startingrange (0 is first element) : 3 Enter Ending range (9 is the last element) : 6

#include<stdio.h>

#include<conio.h>

void main()

{

int n,a[20],i,st,ed;

clrscr();

printf("\n\n\t Enter size of array =>");

scanf("%d",&n);

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

{

printf("\n\n\t Enter number %d =>",i+1);

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

}

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

{

printf("\n\t a[%d] is => %d",i+1,a[i]);

}

printf("\n\n\t Enter starting point =>");

scanf("%d",&st);

printf("\n\n\t Enter ending point =>");

scanf("%d",&ed);

for(i=st; i<=ed; i++)

{

printf("\n\t a[%d] = %d",i+1,a[i]);

}

getch();

}

OUTPUT :

Enter size of array =>5

Enter number 1 =>12

Enter number 2 =>25

Enter number 3 =>32

Enter number 4 =>65

Enter number 5 =>25

a[1] is => 12

a[2] is => 25

a[3] is => 32

a[4] is => 65

a[5] is => 25

Enter starting point =>2

Enter ending point =>4

a[3] = 32

a[4] = 65

a[5] = 25

3 Create three arrays (subject1\_marks, subject2\_ marks & total\_marks) of 10 elements (10 students. Student ith refers as (i+1) index in the array) each. Initialize each element of subject1\_marks and subject2\_marks to any value between (0 to 100). Each element of total\_marks must be initialized to 0.

Calculation of total\_marks of ith student must be done as addition of subject1\_marks and subject2\_marks of ith index. Print the table with No & total marks as follows:

#include<stdio.h>

#include<conio.h>

void main()

{

int i, roll[20],m1[20],m2[20],tt[20],n;

clrscr();

printf("\n\n\t Enter student u want =>");

scanf("%d",&n);

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

{

printf("\n\n\t Enter student %d rollno =>",i+1);

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

printf("\n\n\t Enter Student %d Mark-1 =>",i+1);

scanf("%d",&m1[i]);

printf("\n\n\t Enter Student %d Mark-2 =>",i+1);

scanf("%d",&m2[i]);

tt[i] = m1[i] + m2[i];

}

printf("\n\n\t Student detail...");

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

printf("\n\t Rollno\tMark-1\tMark-2\tTotal[200]");

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

{

printf("\n\t %d\t %d\t %d \t %d",roll[i],m1[i],m2[i],tt[i]);

}

getch();

}

OUTPUT:

/tmp/mnRlXS5Gzq.o

Enter student u want =>3

Enter student 1 rollno =>1

Enter Student 1 Mark-1 =>58

Enter Student 1 Mark-2 =>89

Enter student 2 rollno =>2

Enter Student 2 Mark-1 =>68

Enter Student 2 Mark-2 =>78

Enter student 3 rollno =>3

Enter Student 3 Mark-1 =>99

Enter Student 3 Mark-2 =>58

Student detail...

--------------------------------------------------

Rollno Mark-1 Mark-2 Total[200]

1 58 89 147

2 68 78 146

3 99 58 157

5 Write a program to perform bubble sort using 1-D Array of 6 elements. Initialize each element with value between 0 to 100.

#include<stdio.h>

#include<conio.h>

void main()

{

int i,j,n,a[20],tmp=0;

clrscr();

printf("\n\n\t Enter array size =>");

scanf("%d",&n);

// read

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

{

printf("\n\n\t Enter number %d =>",i+1);

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

}

// write

printf("\n\n\t Before sorting ");

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

{

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

}

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

{

for(j=i+1; j<n; j++)

{

if( a[i] > a[j] )

{

tmp = a[i];

a[i] = a[j];

a[j] = tmp;

}

}

}

printf("\n\n\t After shorting ");

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

{

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

}

getch();

}

OUTPUT:

Enter array size =>5

Enter number 1 =>56

Enter number 2 =>5

Enter number 3 =>22

Enter number 4 =>89

Enter number 5 =>4

Before sorting

56

5

22

89

4

After shorting

4

5

22

56

89