Assignment – 15

Array and Functions in C Language

1. Write a function to find the greatest number from the given array of any size. (TSRS) ?

Solve -

#include<stdio.h>

int f1( int a[10]);

int main(){

int a[10]={ 2,3,2,2,23,3,2,2,2};

printf("%d\n" ,f1(a));

return 0;

}

int f1( int a[10]){

int max= -1;

for( int i=0; i<9; i++){

if( max < a[i])

max = a[i];

}

return max ;

}

Output –

23

2. Write a function to find the smallest number from the given array of any size. (TSRS) ?

Solve –

#include<stdio.h>

int f1( int a[10]);

int main(){

int a[10]={2,3,4,5,6,6,8,6,5,2};

printf("%d\n",f1(a));

return 0;

}

int f1( int a[10]){

int min = 999999;

for( int i=0; i<9; i++){

if(min>a[i])

min = a[i];

}

return min;

}

Output-

2

3. Write a function to sort an array of any size. (TSRS) ?  
solve –

#include<stdio.h>

int f1( int a[5]);

int main(){

int a[5]={2,1,3,4,5};

f1(a);

return 0;

}

int f1( int a[5]){

int temp , i ,j;

for(i=0; i<5; i++){

for( j=i+1; j<5; j++){

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

int temp =a[i];

a[i]=a[j];

a[j]= temp;

}

}

}

for( int i=0; i<5; i++)

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

}

Output –

1

2

3

4

5

5. Write a function to find the first occurrence of adjacent duplicate values in the array.

Function has to return the value of the element ?

Sobve –

#include<stdio.h>

int duplicate(int x[10],int size);

int main()

{

int a[10]={1,2,3,3,4};

int r;

r=duplicate(a,5);

printf("the duplicate array is %d ",r);

return 0;

}

int duplicate(int x[10], int size)

{

int i,j;

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

{

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

{

if(x[i]==x[j])

{

return x[i];

}

}

}

}

Output –

the duplicate array is 3

6. Write a function in C to read n number of values in an array and display it in reverse

Order ?

Solve –

#include<stdio.h>

int f1( int a[5]);

int main(){

int a[5]= {1,2,3,4,5};

f1(a);

return 0;

}

int f1( int a[5]){

for( int i=5; i>=0; i--){

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

}

}

7. Write a function in C to count a total number of duplicate elements in an array ?

Solve –

#include<stdio.h>

int main()

{

int a[10]={1,1,1,4,2},i,j,count =0;

for(i=0;i<5;i++)

{

for(j=i+1;j<5;j++)

{

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

{

count++;

}

}

}

printf(" %d is two time repeat in array",count);

return 0;

}

Output –

3 is two time repeat in array

8. Write a function in C to print all unique elements in an array ?

Solve -

#include<stdio.h>

int main(){

int a[5]= { 1,2,2,3,4};

int i,j;

int count =0;

for( i=0; i<5; i++){

count=0;

for( j=1; j<=5; j++){

if(i!=j){

if(a[i]==a[j]){

count++;

}

}

}

if(count==0){

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

}

}

return 0;

}

Output-

1

4

5

9. Write a function in C to merge two arrays of the same size sorted in descending

Order ?

Solve -