**Array in C Language**

1. ***Write a program to calculate the sum of numbers stored in an array of size 10. Take Array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,j,sum=0;

printf("enter 10 numbers:");

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

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

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

sum=sum+arr[j];

printf("%d is sum of given numbers:",sum);

return 0;

}

1. ***Write a program to calculate the average of numbers stored in an array of size 10.Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,j,sum=0;

float avg;

printf("enter 10 numbers:");

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

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

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

sum=sum+arr[j];

avg=sum/10.0;

printf("%f is sum of given numbers:",avg);

return 0;

}

1. ***Write a program to calculate the sum of all even numbers and sum of all odd numbers, which are stored in an array of size 10. Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,j,sum1=0,sum2=0;

float avg;

printf("enter 10 numbers:");

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

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

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

if(arr[j]%2==0)

sum1=sum1+arr[j];

else

sum2=sum2+arr[j];

printf("%d is sum of even numbers:\n",sum1);

printf("%d is sum of odd numbers:",sum2);

return 0;

}

1. ***Write a program to find the greatest number stored in an array of size 10. Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,j,g=0;

float avg;

printf("enter 10 numbers:");

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

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

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

if(g<arr[j])

g=arr[j];

printf("%d is greatest number in array:\n",g);

return 0;

}

1. ***Write a program to find the smallest number stored in an array of size 10. Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,s;

printf("enter 10 numbers:");

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

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

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

{

if(arr[i]>arr[i+1] && arr[i+1]!='\0')

s=arr[i+1];

}

printf("%d is smallest number in that array.",s);

return 0;

}

1. ***Write a program to sort elements of an array of size 10. Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,j,n;

printf("enter 10 numbers:");

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

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

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

{

for(j=0; j<9-i; j++)

{

if(arr[j]>arr[j+1] && arr[j+1]!='/0')

{

n=arr[j];

arr[j]=arr[j+1];

arr[j+1]=n;

}

}

}

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

printf("%d ",arr[j]);

return 0;

}

1. ***Write a program to find second largest in an array.Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[5],i,j,n;

printf("enter 5 numbers:");

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

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

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

{

for(j=0; j<4-i; j++)

if(arr[j]>arr[j+1] && arr[j+1]!='/0')

{

n=arr[j];

arr[j]=arr[j+1];

arr[j+1]=n;

}

}

printf("\n%d is second largest number in that array.",arr[4]);

return 0;

}

1. ***Write a program to find the second smallest number in an array.Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,j,n;

printf("enter 5 numbers:");

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

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

for(i=0; i<4; i++)

{

for(j=0; j<4-i; j++)

if(arr[j]>arr[j+1] && arr[j+1]!='/0')

{

n=arr[j];

arr[j]=arr[j+1];

arr[j+1]=n;

}

}

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

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

printf("\n%d is second smallest number in that array.",arr[1]);

return 0;

}

***9. Write a program in C to read n number of values in an array and display it in reverse order. Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],i,j,N;

printf("enter Nth number:");

scanf("%d",&N);

printf("enter Nth numbers:");

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

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

printf("displayed array elements in reverse order\n");

for(i=N-1; i>=0; i--)

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

return 0;

}

***10.Write a program in C to copy the elements of one array into another array.Take array values from the user.***

#include<stdio.h>

int main()

{

int arr[10],arr2[10],i;

printf("enter 10 numbers:");

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

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

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

arr2[i]=arr[i];

printf("copied array elements into another array:\n");

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

printf("\n%d",arr2[i]);

return 0;

}