**Assignment - 14 A Job Ready Bootcamp in C++, DSA and IOT MySirG**

**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.

Sol – 1.

#include<stdio.h>

#include<conio.h>

int main()

{

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

printf("Enter 10 numbers : ");

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

{

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

sum=sum+a[i];

}

printf("Sum = %d",sum);

getch();

return 0;

}

2. Write a program to calculate the average of numbers stored in an array of size 10.

Take array values from the user.

Sol – 2.

#include<stdio.h>

#include<conio.h>

int main()

{

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

printf("Enter 10 numbers : ");

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

{

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

sum=sum+a[i];

}

printf("Average = %d",sum/10);

getch();

return 0;

}

3. 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.

Sol – 3.

#include<stdio.h>

#include<conio.h>

int main()

{

int i,a[10],sumev=0,sumod=0;

printf("Enter 10 numbers : ");

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

{

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

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

sumev=sumev+a[i];

else

sumod=sumod+a[i];

}

printf("\nSum of even numbers = %d\nSum of odd numbers = %d",sumev,sumod);

getch();

return 0;

}

4. Write a program to find the greatest number stored in an array of size 10. Take array

values from the user.

Sol – 4.

#include<stdio.h>

#include<conio.h>

int main()

{

int i,a[10],g=-999999;

printf("Enter 10 numbers : ");

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

{

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

g=(a[i]>=g?a[i]:g);

}

printf("\nGreatest = %d",g);

getch();

return 0;

}

5. Write a program to find the smallest number stored in an array of size 10. Take array

values from the user.

Sol – 5.

#include<stdio.h>

#include<conio.h>

int main()

{

int i,a[10],g=999999;

printf("Enter 10 numbers : ");

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

{

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

g=(a[i]<=g?a[i]:g);

}

printf("\nSmallest = %d",g);

getch();

return 0;

}

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

user.

Sol – 6.

#include<stdio.h>

#include<conio.h>

int main()

{

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

printf("Enter 10 numbers : ");

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

{

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

}

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

{

for(i=j+1;i<=9;i++)

{

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

{

temp=a[j];

a[j]=a[i];

a[i]=temp;

}

}

}

printf("After Sorting : ");

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

{

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

}

getch();

return 0;

}

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

Sol – 7.

#include<stdio.h>

#include<conio.h>

int main()

{

int n,i,j,temp;

printf("How much numbers : ");

scanf("%d",&n);

int a[n];

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

{

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

}

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

{

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

{

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

{

temp=a[j];

a[j]=a[i];

a[i]=temp;

}

}

}

printf("Second largest number in array is : %d",a[1]);

getch();

return 0;

}

OR

#include<stdio.h>

#include<conio.h>

int main()

{

int n,i,g,g2=-9999999;

printf("How much numbers : ");

scanf("%d",&n);

int a[n];

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

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

g=a[0];

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

{

if(a[i]>g)

{

g2=g;

g=a[i];

}

else

if(a[i]>g2)

g2=a[i];

}

printf("Second Largest number is : %d",g2);

getch();

return 0;

}

8. Write a program to find the second smallest number in an array.Take array values

from the user.

Sol – 8.

#include<stdio.h>

#include<conio.h>

int main()

{

int n,i,j,temp;

printf("How much numbers : ");

scanf("%d",&n);

int a[n];

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

{

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

}

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

{

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

{

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

{

temp=a[j];

a[j]=a[i];

a[i]=temp;

}

}

}

printf("Second smallest number in array is : %d",a[1]);

getch();

return 0;

}

OR

#include<stdio.h>

#include<conio.h>

int main()

{

int n,i,s,s2=9999999;

printf("How much numbers : ");

scanf("%d",&n);

int a[n];

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

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

s=a[0];

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

{

if(a[i]<s)

{

s2=s;

s=a[i];

}

else

if(a[i]<s2)

s2=a[i];

}

printf("Second Smallest number is : %d",s2);

getch();

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.

Sol – 9.

#include<stdio.h>

#include<conio.h>

int main()

{

int i,n;

printf("Enter how much numbers : ");

scanf("%d",&n);

printf("Enter %d numbers : ",n);

int a[n];

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

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

printf("In reverse order : ");

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

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

getch();

return 0;

}

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

values from the user.

Sol – 10.

#include<stdio.h>

#include<conio.h>

int main()

{

int n,i,j;

printf("How much numbers : ");

scanf("%d",&n);

int a[n],b[n];

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

{

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

}

printf("After copying data to another array : ");

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

{

b[i]=a[i];

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

}

getch();

return 0;

}