



NUST

NATIONAL UNIVERSITY
OF SCIENCES & TECHNOLOGY

SUBMITTED TO: SIR JAWAD KHAN

SUBMITTED BY: MUHAMMAD ZAOREZ

CMS ID: 455443

SEMESTER: 1ST SEMESTER (SEC A)

SESSION: UG ME-2023

COURSE TITLE: PROGRAMMING

COURSE CODE: CS-114

LAB MANUAL 08

Write a C++ program to calculate average of numbers of array.

```
int arr[5];

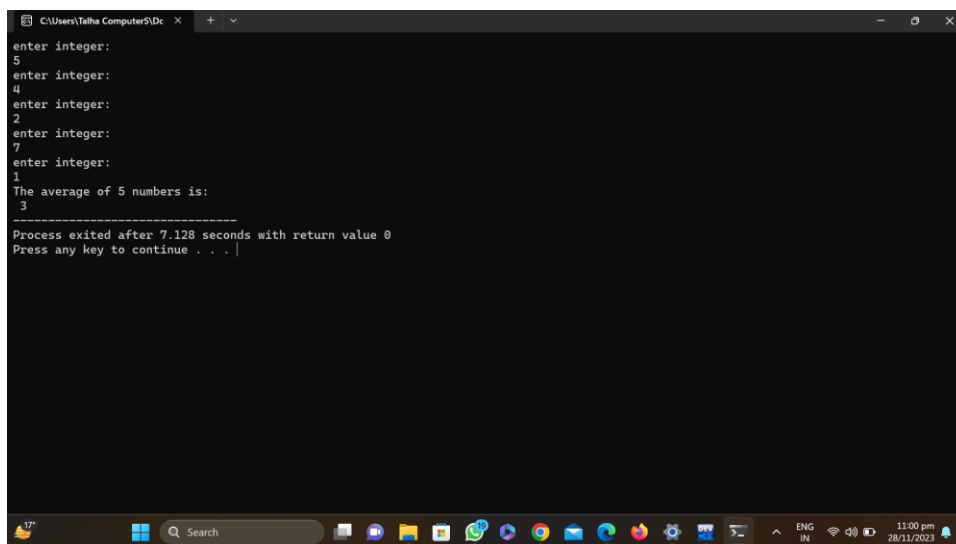
for(int i=0;i<=4;i++){

cout<<"enter integer: "<<endl;

cin>>arr[i];

}

cout<<"The average of 5 numbers is:\n
"<<(arr[0]+arr[1]+arr[2]+arr[3]+arr[4])/5;
```



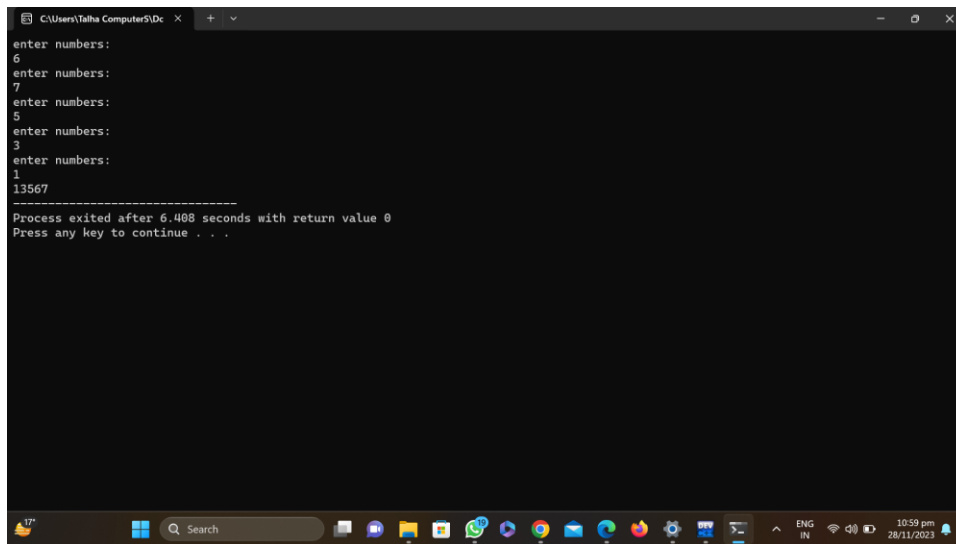
```
C:\Users\Taha Computer\5\De... X + -
enter integer:
5
enter integer:
4
enter integer:
2
enter integer:
7
enter integer:
1
The average of 5 numbers is:
3
-----
Process exited after 7.128 seconds with return value 0
Press any key to continue . . . |
```

(2) Implement Bubble sort on an array of 5 integers.

```
int n[5];

int temp;
```

```
for(int i=0;i<=4;i++){
cout<<"enter numbers: "<<endl;
cin>>n[i];
}
for(int i=0;i<=4;i++){
for(int j=0;j<=3;j++){
if(n[j]>n[j+1]){
temp=n[j];
n[j]=n[j+1];
n[j+1]=temp;
}
}
}
for(int i=0;i<=4;i++){
cout<<n[i];
}
```



```
C:\Users\Talha Computer5\Doc
enter numbers:
6
enter numbers:
7
enter numbers:
5
enter numbers:
3
enter numbers:
1
13567
-----
Process exited after 6.408 seconds with return value 0
Press any key to continue . . .
```

(3) Implement Selection Sort on an array of 5 integers.

```
int arr[5],i,j,min,temp;
```

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

```
cout<<"enter array of 5 elements: "<<endl;
```

```
cin>>arr[i];
```

```
}
```

```
cout<<"the original values in array:"<<endl;
```

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

```
cout<<arr[i]<<" ";
```

```
}
```

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

```
min=i;
for(j=i+1;j<5;j++){
if(arr[j]<arr[min])
min=j;
}
if (min!=i){
```

```
temp=arr[i];
arr[i]=arr[min];
arr[min]=temp;
```

```
}
```

```
}
```

```
cout<<"the sorted array: "<<endl;
```

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

```
{
```

```
cout<<arr[i]<<" ";
```

```
}
```

*/

```
C:\Users\Talha Computer5\Documents>
enter array of 5 elements:
9
enter array of 5 elements:
7
enter array of 5 elements:
6
enter array of 5 elements:
5
enter array of 5 elements:
1
the original values in array:
9 7 6 5 1 the sorted array:
1 5 6 7 9
-----
Process exited after 10.24 seconds with return value 0
Press any key to continue . . .
```