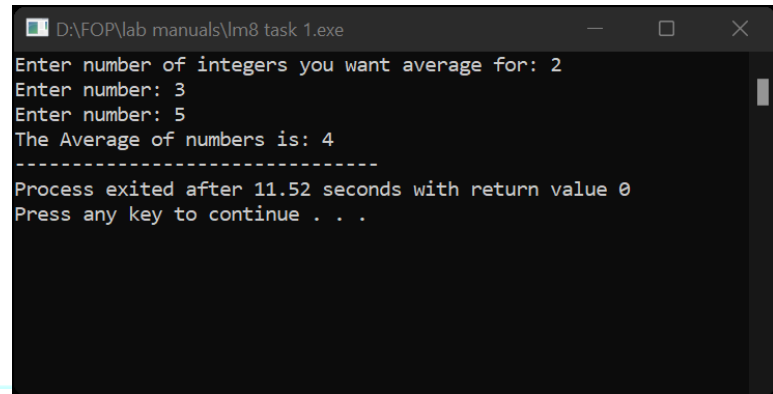


LAB TASKS 8:

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

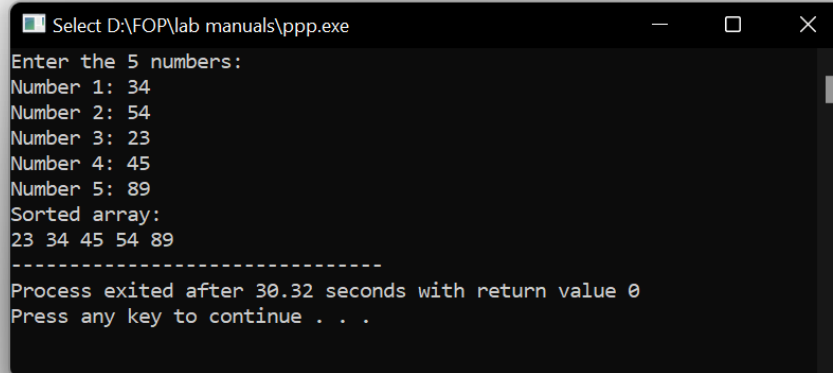
```
1  #include<bits/stdc++.h>
2  using namespace std;
3  int main()
4  {
5      int x,sum=0;
6      cout<<"Enter number of integers you want average for: ";
7      cin>>x;
8      int arr[x];
9      for(int i=0;i<x;i++)
10     {
11         cout<<"Enter number: ";
12         cin>>arr[i];
13     }
14     for(int j=0;j<x;j++)
15     {
16         sum+=arr[j];
17     }
18     float avg;
19     avg=sum/x;
20     cout<<"The Average of numbers is: "<<avg;
21     return 0;
22 }
```



```
D:\FOP\lab manuals\lm8 task 1.exe
Enter number of integers you want average for: 2
Enter number: 3
Enter number: 5
The Average of numbers is: 4
-----
Process exited after 11.52 seconds with return value 0
Press any key to continue . . .
```

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

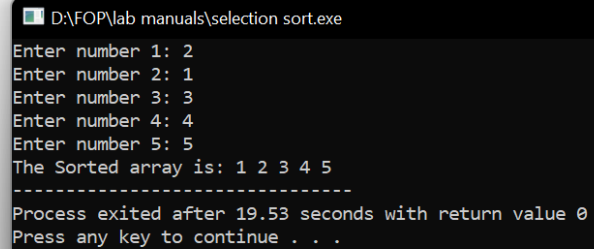
```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int a[5];
6      cout<<"Enter the 5 numbers:"<<endl;
7      for (int i=0;i<5;i++){
8          cout<<"Number "<<i+1<<": ";
9          cin>>a[i];
10     }
11     for (int i=0;i<5;i++) {
12         for (int j=0;j<4;j++) {
13             if (a[j]>a[j+1]){
14                 int temp=a[j];
15                 a[j]=a[j+1];
16                 a[j+1]=temp;
17             }
18         }
19     }
20     cout<<"Sorted array:"<<endl;
21     for (int i=0;i<5;i++) {
22         cout<<a[i]<<" ";
23     }
24     return 0;
25 }
```



```
Select D:\FOP\lab manuals\ppp.exe
Enter the 5 numbers:
Number 1: 34
Number 2: 54
Number 3: 23
Number 4: 45
Number 5: 89
Sorted array:
23 34 45 54 89
-----
Process exited after 30.32 seconds with return value 0
Press any key to continue . . .
```

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

```
1 #include <bits/stdc++.h>
2 using namespace std;
3 int main()
4 {
5     int arr[5], min, temp;
6     for(int i=0; i<5; i++)
7     {
8         cout<<"Enter number "<<i+1<<" ";
9         cin>>arr[i];
10    }
11    for(int i=0; i<=4; i++)
12    {
13        min=i;
14        for(int j=i+1; j<5; j++)
15            if (arr[j]<arr[min])
16            {
17                min=j;
18            }
19            if( min!=i)
20            {
21                temp=arr[i];
22                arr[i]=arr[min];
23                arr[min]=temp;
24            }
25    }
26    cout<<"The Sorted array is: ";
27    for(int k=0; k<5; k++)
28    {
29        cout<<arr[k]<<" ";
30    }
31    return 0;
32 }
```



```
D:\FOP\lab manuals\selection sort.exe
Enter number 1: 2
Enter number 2: 1
Enter number 3: 3
Enter number 4: 4
Enter number 5: 5
The Sorted array is: 1 2 3 4 5
-----
Process exited after 19.53 seconds with return value 0
Press any key to continue . . .
```