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

```cpp
#include <iostream>

using namespace std;

int main()
{int x;
double sum,avg;

    cout << "how many values do you want to input in your array "<< endl;
    cin>>x;
    int array[x];
    for(int i=1;i<=x;i++){
    cout << "enter value "<<i<< endl;
    cin>>array[i-1];

    }
    sum=0;
    for(int j=0;j<x;j++){
      sum=sum+array[j];


    }
    cout<<endl;
    avg=sum/x;
    cout<<"your average value is  "<<avg<<endl;

    return 0;
}
```

```
how many values do you want to input in your array
4
enter value 1
4
enter value 2
3
enter value 3
2
enter value 4
1

your average value is  2.5

Process returned 0 (0x0)    execution time : 5.646 s
Press any key to continue.
```

2. _Implement Bubble sort on an array of 5 integers._

```cpp
int main()
{int array[5],temp;
    for(int i=1;i<=5;i++) {

     cout << "enter value"<<i << endl;
     cin>>array[i-1];


     }
     for(int i=0;i<4;i++){
     for (int j=0;j<4-i;j++){
       if(array[j]>array[j+1]){
         temp=array[j];
         array[j]=array[j+1];
         array[j+1]=temp;
      }


     }
     cout<<endl;



     }
      for(int x=0;x<=4;x++){
       cout<<array[x]<<endl;

     }

    return 0;
```

```
enter value1
4
enter value2
1
enter value3
7
enter value4
8
enter value5
0




0
1
4
7
8

Process returned 0 (0x0)   execution time : 5.791 s
Press any key to continue.
```

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

```cpp
{
    int size, arr[5];
    int i, j, temp, lower, index;
    bool flag=false;
    cout<<"Enter the Size of Array: ";
    cin>>size;
    for(i=0; i<size; i++){
        cout<<"Enter number"<<i+1<<endl;
        cin>>arr[i];}
    for(i=0; i<(size-1); i++)
    {
        flag=false;
        lower = arr[i];
        for(j=(i+1); j<size; j++)
        {
            if(lower>arr[j])
            {
                lower = arr[j];
                flag=true;
                index = j;
            }
        }
        if(flag==true)
        {
            temp = arr[i];
            arr[i] = lower;
            arr[index] = temp;
        }
    }
    cout<<"your new array is"<<endl;
    for(i=0; i<size; i++)
        cout<<arr[i]<<" ";
    cout<<endl;
    return 0;
}
```

```
Enter the Size of Array: 5
Enter number1
3
Enter number2
1
Enter number3
7
Enter number4
9
Enter number5
1
your new array is
1 1 3 7 9

Process returned 0 (0x0)   execution time : 5.589 s
Press any key to continue.
```