

Kode 1:

Program memiliki fungsi untuk membalikkan urutan dari myarray dari elemen terkecil hingga terbesar. Kami juga melakukan modifikasi agar user bisa secara interaktif memberikan masukan sesuai keinginan.

```
#include<iostream>
using namespace std;
int main ()
{
    int myarray[5];
    cout<<"Input 5 element numbers : \n";
    for (int i=0;i<5;i++)
    {
        cout<<i+1<<": ";
        cin>>myarray[i];
        cout<<"\n";
    }
    cout<<"\nInput list is \n";
    for(int i=0;i<5;i++)
    {
        cout <<myarray[i]<<"\t";
    }
    for(int k=1; k<5; k++)
    {
        int temp = myarray[k];
        int j= k-1;
        while(j>=0 && temp <= myarray[j])
        {
            myarray[j+1] = myarray[j];
            j = j-1;
        }
        myarray[j+1] = temp;
    }
    cout<<"\nOutput list is \n";
    for(int i=0;i<5;i++)
    {
        cout <<myarray[i]<<"\t";
    }
    return 0; //Lupa return 0;
```

```
}
```

Output1:

```
Input 5 element numbers :  
1: 100  
  
2: 3  
  
3: 2  
  
4: 1  
  
5: 0  
  
Input list is  
100    3    2    1    0  
Output list is  
0      1    2    3    100
```

Kode2:

Kode setelah ditambahkan luaran untuk nama yang tertua.

```
#include<iostream>
using namespace std;

struct
{
    int roll,age;
    string name;
}vr[4];
int main()
{
    int i,j,k, max;
    string nameprint; //string untuk menyimpan data nama tertua
    for(i=0; i<4; i++)
    {
        cout<<"Enter "<<i+1<<" Student Record\n";
        cout<<"Enter Roll no: "<<endl;
        cin>>vr[i].roll;
        cout<<"Enter age : "<<endl;
        cin>>vr[i].age;
        cout<<"Enter Name : "<<endl;
        cin>>vr[i].name;
    }
    cout<<endl;
    for(j=0; j<4; j++)
    {
        cout<<"\nDisplay "<<j+1<<" Student Record";
        cout<<"\nRoll no.: "<<vr[j].roll;
        cout<<"\nAge : "<<vr[j].age;
        cout<<"\nName : "<<vr[j].name<<endl;
    }
    max = vr[0].age;
    for (k = 1; k < 4; k++)
    {
        if (max<vr[k].age)
        max=vr[k].age;
        nameprint=vr[k].name; // index ke k untuk nama tertua
    }
    cout << "\nThe oldest age's student is : " <<max;
    cout << "\nThe oldest student names : " <<nameprint;
    return 0;
}
```

Output:

```
Enter 1 Student Record
Enter Roll no:
1
Enter age :
18
Enter Name :
Aji
Enter 2 Student Record
Enter Roll no:
2
Enter age :
18
Enter Name :
Qornain
Enter 3 Student Record
Enter Roll no:
3
Enter age :
17
Enter Name :
Salwa
Enter 4 Student Record
Enter Roll no:
4
Enter age :
22
Enter Name :
Lutfi

Display 1 Student Record
Roll no.: 1
Age : 18
Name : Aji

Display 2 Student Record
Roll no.: 2
Age : 18
Name : Qornain

Display 3 Student Record
Roll no.: 3
Age : 17
Name : Salwa

Display 4 Student Record
Roll no.: 4
Age : 22
Name : Lutfi

The oldest age's student is : 22
The oldest student names : Lutfi
```

Kode3:

```
#include<iostream>
using namespace std;
// declare functions
double add(double num1, double num2, double num3);
double avg(double sum, int n);
// main function
int main()
{
    // declare variables
    double num[3]; //Masukan berupa array double
    double sum, average;
    // take input from end-user
    cout << "Enter three Numbers :: ";
    cin >> num[0] >> num[1] >> num[2];
    // calculate sum value
    sum = add(num[0], num[1], num[2]);
    // calculate average value
    average = avg(sum, 3);
    // display result
    cout << "Sum = " << sum << endl;
    cout << "Average = " << average << endl;
    return 0;
}
// function to add three numbers
double add(double num1, double num2, double num3)
{
    return num1+num2+num3;
}
// function to calculate average of n number
double avg(double sum, int n)
{
    return sum / n;
}
```

Saya mengganti num1, 2, 3 pada int main dengan num[0], num[1], num[2] sehingga berubah menjadi array.

Output3:

```
Enter three Numbers :: 1
2
3
Sum = 6
Average = 2
```

Kode5:

```
#include<iostream>
using namespace std;

int main()
{
    char matrix[3][3] = {'x','x','x','x','x','x','x','x','x'};
    int i, j;
    //for diagonal matrix function
    cout<<"\n---Diagonalize Matrix X---"<<endl;
    for(i=0;i<3;i++)
    {
        for(j=0;j<3;j++)
        {
            if(i==j)
            {
                cout<<matrix[i][j];
            }else
            {
                cout<<"\t";
            }
        }
        cout<<"\n";
    }

    cout<<"\n---Trianglize Matrix X---"<<endl;
    for(i=0;i<3;i++)
    {
        for(j=0;j<=i;j++)
        {
            cout<<matrix[i][j];
            cout<<"\t";
        }
        cout<<"\n";
    }
    return 0;
}
```

Output5:

```
---Diagonalize Matrix X---
X
      X
      X

---Trianglize Matrix X---
X
X      X
X      X      X
```