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Kelas : 02TPLP023

Tugas : Algoritma II – Pertemuan 11

1.

order desc.cpp

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

void BubbleSort(int data[], int n);

int main()
{
    int i,
    n = 9,
    data[] = {20, 10, 32, 100, 60, 12, 70, 25, 45, 65};

    cout<<"Pengurutan Menurun"<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;

    for(i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }

    cout<<endl;

    cout<<"--------------------------------"<<endl;

    BubbleSort(data, n);

    cout<<"Setelah diurutkan: "<<endl;

    for(i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }

    cout<<endl;
    cout<<"--------------------------------"<<endl;

    cout<<"Min: "<<data[9]<<endl;
    cout<<"Max: "<<data[0]<<endl;

    return 0;
}

void BubbleSort(int array1[], int n)
{
    int i, j, tmp;

    for(i = 1; i <= n; i++)
    {
        for(j = n; j >= i; j--)
        {
            if(array1[j] > array1[j-1])
            {
                tmp = array1[j];

                array1[j] = array1[j-1];

                array1[j-1] = tmp;
            }
        }
    }
}
```

D:\Documents\File Dev C++\order desc.exe

```
Pengurutan Menurun
--------------------------------
Sebelum diurutkan:
20 10 32 100 60 12 70 25 45 65
--------------------------------
Setelah diurutkan:
100 70 65 60 45 32 25 20 12 10
--------------------------------
Min: 10
Max: 100

--------------------------------

Process exited after 0.05937 seconds with return value 0
Press any key to continue . . .
```

Source Code:

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

void BubbleSort(int data[], int n);

int main()
{
	int i,
	n = 9,
	data[] = {20, 10, 32, 100, 60, 12, 70, 25, 45, 65};

	cout<<"Pengurutan Menurun"<<endl;
	cout<<"--------------------------------"<<endl;
	cout<<"Sebelum diurutkan: "<<endl;

	for(i = 0; i <= n; i++)
	{
		cout<<data[i]<<" ";
	}

	cout<<endl;

	cout<<"--------------------------------"<<endl;

	BubbleSort(data, n);

	cout<<"Setelah diurutkan: "<<endl;

	for(i = 0; i <= n; i++)
	{
		cout<<data[i]<<" ";
	}

	cout<<endl;
```

```
	cout<<"--------------------------------"<<endl;

	cout<<"Min: "<<data[9]<<endl;
	cout<<"Max: "<<data[0]<<endl;

	return 0;
}

void BubbleSort(int array1[], int n)
{
	int i, j, tmp;

	for(i = 1; i <= n; i++)
	{
		for(j = n; j >= i; j--)
		{
			if(array1[j] > array1[j-1])
			{
				tmp = array1[j];

				array1[j] = array1[j-1];

				array1[j-1] = tmp;
			}
		}
	}
}
```

2.

order asc.cpp

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

void BubbleSort(int data[], int n);

int main()
{
    int i, n = 9, data[] = {10, 40, 20, 60, 15, 4, 8, 100, 200, 25};

    cout<<"Pengurutan Menaik"<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;

    for(i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }

    cout<<endl;

    cout<<"------------------------"<<endl;

    BubbleSort(data, n);

    cout<<"Setelah diurutkan: "<<endl;

    for(i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }

    cout<<endl;

    return 0;
}

void BubbleSort(int array1[], int n)
{
    int i, j, tmp;

    for(i = 1; i <= n; i++)
    {
        for(j = n; j >= i; j--)
        {
            // controller asc and desc
            if(array1[j] < array1[j-1])
            {
                tmp = array1[j];

                array1[j] = array1[j-1];

                array1[j-1] = tmp;
            }
        }
    }
}
```

D:\Documents\File Dev C++\order asc.exe

```
Pengurutan Menaik
--------------------------------
Sebelum diurutkan:
10 40 20 60 15 4 8 100 200 25
------------------------
Setelah diurutkan:
4 8 10 15 20 25 40 60 100 200

--------------------------------
Process exited after 0.05929 seconds with return value 0
Press any key to continue . . .
```

Source Code:

```
#include<iostream>
using namespace std;
void BubbleSort(int data[], int n);

int main()
{
	int i, n = 9, data[] = {10, 40, 20, 60, 15, 4, 8, 100, 200, 25};

	cout<<"Pengurutan Menaik"<<endl;
	cout<<"--------------------------------"<<endl;
	cout<<"Sebelum diurutkan: "<<endl;

	for(i = 0; i <= n; i++)
	{
		cout<<data[i]<<" ";
	}

	cout<<endl;

	cout<<"------------------------"<<endl;

	BubbleSort(data, n);

	cout<<"Setelah diurutkan: "<<endl;

	for(i = 0; i <= n; i++)
	{
		cout<<data[i]<<" ";
	}

	cout<<endl;

	return 0;
}
```

```
void BubbleSort(int array1[], int n)
{
	int i, j, tmp;

	for(i = 1; i <= n; i++)
	{
		for(j = n; j >= i; j--)
		{
			// controller asc and desc
			if(array1[j] < array1[j-1])
			{
				tmp = array1[j];

				array1[j] = array1[j-1];

				array1[j-1] = tmp;
			}
		}
	}
}
```