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Tugas : Algoritma II – UAS Semester 2

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1. Insertion, selection dan bubble sort 4, 2, 5, 1, 8, 7,10, 9, 6 (ascending)

Insertion Sort No. 1

No. 1 Insertion sort - asc.cpp

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

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

int main()
{
    int i,
        jmlData = 9,
        n = jmlData - 1,
        data[] = {4, 2, 5, 1, 8, 7, 10, 9, 6};

    cout<<"Insertion Sort: "<<endl;
    cout<<"-------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for (i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;

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

    InsertionSort(data, n);

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

void InsertionSort(int array1[], int n)
{
    int i, j, x;
    bool ketemu;

    for(i = 1; i <= n; i++)
    {
        x = array1[i];
        j = i - 1;
        ketemu = false;

        while ((j >= 0) && (!ketemu))
        {
            if (x < array1[j])
            {
                array1[j+1] = array1[j];
                j = j - 1;
            }
            else
            {
                ketemu = true;
            }
        }

        array1[j+1] = x;
    }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\N...
Insertion Sort:
-------------------------------
Sebelum diurutkan:
4 2 5 1 8 7 10 9 6
---------------------------------
Setelah diurutkan:
1 2 4 5 6 7 8 9 10

--------------------------------
Process exited after 0.07569 seconds with return value 0
Press any key to continue . . .
```

Selection Sort No. 1

No. 1 Selection sort - asc.cpp

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

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

int main()
{
    int i,
    n = 9,
    data[] = {4, 2, 5, 1, 8, 7, 10, 9, 6};
    cout<<"Selection Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for(i = 0; i < n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;
    cout<<"--------------------------------"<<endl;
    selectionSort(data, n);
    cout<<"Setelah diurutkan: "<<endl;

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

    cout<<endl;

    return 0;
}

void selectionSort(int array[], int n)
{
    int i, j, imin, temp;
    for(i = 0; i < n - 1; i++)
    {
        imin = i;
        for(j = i+1; j < n; j++)
        {
            if(array[j] < array[imin])
            {
                imin = j;
            }
        }

        temp = array[i];
        array[i] = array[imin];
        array[imin] = temp;
   }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\No...
Selection Sort:
--------------------------------
Sebelum diurutkan:
4 2 5 1 8 7 10 9 6
--------------------------------
Setelah diurutkan:
1 2 4 5 6 7 8 9 10

--------------------------------
Process exited after 0.09114 seconds with return value 0
Press any key to continue . . .
```

Bubble Sort No. 1

No. 1 Bubble sort - asc.cpp

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

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

int main()
{
    int i,
    n = 9,
    data[] = {4, 2, 5, 1, 8, 7, 10, 9, 6};
    cout<<"Bubble Sort: "<<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 = 1; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }

    cout<<endl;

    return 0;
}

void BubbleSort(int array1[], int n)
{
    int i, j, tmp;
    for(i = 0; 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++\uas\uas-algo-semester-2\No. 1\No. ...
Bubble Sort:
------------------------------
Sebelum diurutkan:
4 2 5 1 8 7 10 9 6
------------------------------
Setelah diurutkan:
1 2 4 5 6 7 8 9 10

------------------------------
Process exited after 0.05499 seconds with return value 0
Press any key to continue . . .
```

2. Insertion, selection dan bubble sort 1, 10, 3, 8, 5, 6, 7, 4, 9, 2 (descending)

Insertion Sort No. 2

No. 2 Insertion sort - desc.cpp

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

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

int main()
{
    int i,
        jmlData = 10,
        n = jmlData - 1,
        data[] = {1, 10, 3, 8, 5, 6, 7, 4, 9, 2};

    cout<<"Insertion Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for (i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;

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

    InsertionSort(data, n);

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

void InsertionSort(int array1[], int n)
{
    int i, j, x;
    bool ketemu;

    for(i = 1; i <= n; i++)
    {
        x = array1[i];
        j = i - 1;
        ketemu = false;

        while ((j >= 0) && (!ketemu))
        {
            if (x > array1[j])
            {
                array1[j+1] = array1[j];
                j = j - 1;
            }
            else
            {
                ketemu = true;
            }
        }

        array1[j+1] = x;
    }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\N...
Insertion Sort:
--------------------------------
Sebelum diurutkan:
1 10 3 8 5 6 7 4 9 2
---------------------------------
Setelah diurutkan:
10 9 8 7 6 5 4 3 2 1

--------------------------------
Process exited after 0.08164 seconds with return value 0
Press any key to continue . . .
```

Selection Sort No. 2

No. 2 Insertion sort - desc.cpp | No. 2 Selection sort - desc.cpp

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

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

int main()
{
    int i,
    n = 10,
    data[] = {1, 10, 3, 8, 5, 6, 7, 4, 9, 2};
    cout<<"Selection Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for(i = 0; i < n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;
    cout<<"--------------------------------"<<endl;
    selectionSort(data, n);
    cout<<"Setelah diurutkan: "<<endl;

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

    cout<<endl;

    return 0;
}

void selectionSort(int array[], int n)
{
    int i, j, imin, temp;
    for(i = 0; i < n - 1; i++)
    {
        imin = i;
        for(j = i+1; j < n; j++)
        {
            if(array[j] > array[imin])
            {
                imin = j;
            }
        }

        temp = array[i];
        array[i] = array[imin];
        array[imin] = temp;
    }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\No. ...
Selection Sort:
--------------------------------
Sebelum diurutkan:
1 10 3 8 5 6 7 4 9 2
--------------------------------
Setelah diurutkan:
10 9 8 7 6 5 4 3 2 1

--------------------------------
Process exited after 0.0818 seconds with return value 0
Press any key to continue . . .
```

Bubble Sort No. 2

No. 2 Bubble sort - desc.cpp | No. 2 Insertion sort - desc.cpp | No. 2 Selection sort - desc.cpp

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

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

int main()
{
    int i,
    n = 10,
    data[] = {1, 10, 3, 8, 5, 6, 7, 4, 9, 2};
    cout<<"Bubble Sort: "<<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 - 1; 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++\uas\uas-algo-semester-2\N...
Bubble Sort:
--------------------------------
Sebelum diurutkan:
1 10 3 8 5 6 7 4 9 2
--------------------------------
Setelah diurutkan:
10 9 8 7 6 5 4 3 2 1

--------------------------------
Process exited after 0.06645 seconds with return value 0
Press any key to continue . . .
```

3. Insertion, selection dan bubble sort 5, 34, 32, 25, 75, 42, 22, 2 (ascending)

Insertion Sort No. 3

No. 3 Insertion sort - asc.cpp | No. 3 Bubble sort - asc.cpp | No. 3 Selection sort - asc.cpp

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

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

int main()
{
    int i,
        jmlData = 8,
        n = jmlData - 1,
        data[] = {5, 34, 32, 25, 75, 42, 22, 2};

    cout<<"Insertion Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for (i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;

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

    InsertionSort(data, n);

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

void InsertionSort(int array1[], int n)
{
    int i, j, x;
    bool ketemu;

    for(i = 1; i <= n; i++)
    {
        x = array1[i];
        j = i - 1;
        ketemu = false;

        while ((j >= 0) && (!ketemu))
        {
            if (x < array1[j])
            {
                array1[j+1] = array1[j];
                j = j - 1;
            }
            else
            {
                ketemu = true;
            }
        }

        array1[j+1] = x;
    }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\N...
Insertion Sort:
--------------------------------
Sebelum diurutkan:
5 34 32 25 75 42 22 2
--------------------------------
Setelah diurutkan:
2 5 22 25 32 34 42 75
--------------------------------
Process exited after 0.1047 seconds with return value 0
Press any key to continue . . .
```

Selection Sort No. 3

No. 3 Selection sort - asc.cpp

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

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

int main()
{
    int i,
    n = 8,
    data[] = {5, 34, 32, 25, 75, 42, 22, 2};
    cout<<"Selection Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for(i = 0; i < n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;
    cout<<"--------------------------------"<<endl;
    selectionSort(data, n);
    cout<<"Setelah diurutkan: "<<endl;

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

    cout<<endl;

    return 0;
}

void selectionSort(int array[], int n)
{
    int i, j, imin, temp;
    for(i = 0; i < n - 1; i++)
    {
        imin = i;
        for(j = i+1; j < n; j++)
        {
            if(array[j] < array[imin])
            {
                imin = j;
            }
        }

        temp = array[i];
        array[i] = array[imin];
        array[imin] = temp;
    }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\No....
Selection Sort:
--------------------------------
Sebelum diurutkan:
5 34 32 25 75 42 22 2
--------------------------------
Setelah diurutkan:
2 5 22 25 32 34 42 75

--------------------------------
Process exited after 0.06184 seconds with return value 0
Press any key to continue . . .
```

Bubble Sort No. 3

No. 3 Bubble sort - asc.cpp | No. 3 Selection sort - asc.cpp

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

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

int main()
{
    int i,
    n = 8,
    data[] = {5, 34, 32, 25, 75, 42, 22, 2};
    cout<<"Bubble Sort: "<<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 = 1; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }

    cout<<endl;

    return 0;
}

void BubbleSort(int array1[], int n)
{
    int i, j, tmp;
    for(i = 0; 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++\uas\uas-algo-semester-2\N...
Bubble Sort:
--------------------------------
Sebelum diurutkan:
5 34 32 25 75 42 22 2
--------------------------------
Setelah diurutkan:
2 5 22 25 32 34 42 75

--------------------------------
Process exited after 0.09558 seconds with return value 0
Press any key to continue . . .
```

4. Insertion, selection dan bubble sort 21, 83, 42, 11, 10, 9, 3, 20, 102, 27, 15, 92, 2 (descending)

Insertion Sort No. 4

No. 4 Insertion sort - desc.cpp

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

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

int main()
{
    int i,
        jmlData = 13,
        n = jmlData - 1,
        data[] = {21, 83, 42, 11, 10, 9, 3, 20, 102, 27, 15, 92, 2};

    cout<<"Insertion Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for (i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;

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

    InsertionSort(data, n);

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

void InsertionSort(int array1[], int n)
{
    int i, j, x;
    bool ketemu;

    for(i = 1; i <= n; i++)
    {
        x = array1[i];
        j = i - 1;
        ketemu = false;

        while ((j >= 0) && (!ketemu))
        {
            if (x > array1[j])
            {
                array1[j+1] = array1[j];
                j = j - 1;
            }
            else
            {
                ketemu = true;
            }
        }

        array1[j+1] = x;
    }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\N...
Insertion Sort:
--------------------------------
Sebelum diurutkan:
21 83 42 11 10 9 3 20 102 27 15 92 2
--------------------------------
Setelah diurutkan:
102 92 83 42 27 21 20 15 11 10 9 3 2

--------------------------------
Process exited after 0.1111 seconds with return value 0
Press any key to continue . . .
```

Selection Sort No. 4

No. 4 Selection sort - desc.cpp | No. 4 Bubble sort - desc.cpp | No. 4 Insertion sort - desc.cpp

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

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

int main()
{
    int i,
    n = 13,
    data[] = {21, 83, 42, 11, 10, 9, 3, 20, 102, 27, 15, 92, 2};
    cout<<"Selection Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for(i = 0; i < n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;
    cout<<"--------------------------------"<<endl;
    selectionSort(data, n);
    cout<<"Setelah diurutkan: "<<endl;

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

    cout<<endl;

    return 0;
}

void selectionSort(int array[], int n)
{
    int i, j, imin, temp;
    for(i = 0; i < n - 1; i++)
    {
        imin = i;
        for(j = i+1; j < n; j++)
        {
            if(array[j] > array[imin])
            {
                imin = j;
            }
        }

        temp = array[i];
        array[i] = array[imin];
        array[imin] = temp;
    }
}
```

```
Select D:\Documents\File Dev C++\uas\uas-algo-semest...
Selection Sort:
--------------------------------
Sebelum diurutkan:
21 83 42 11 10 9 3 20 102 27 15 92 2
--------------------------------
Setelah diurutkan:
102 92 83 42 27 21 20 15 11 10 9 3 2

--------------------------------
Process exited after 0.06275 seconds with return value 0
Press any key to continue . . .
```

Bubble Sort No. 4

No. 4 Bubble sort - desc.cpp | No. 4 Insertion sort - desc.cpp

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

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

int main()
{
    int i,
    n = 13,
    data[] = {21, 83, 42, 11, 10, 9, 3, 20, 102, 27, 15, 92, 2};
    cout<<"Bubble Sort: "<<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 - 1; 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++\uas\uas-algo-semester-2\...
Bubble Sort:
--------------------------------
Sebelum diurutkan:
21 83 42 11 10 9 3 20 102 27 15 92 2
--------------------------------
Setelah diurutkan:
102 92 83 42 27 21 20 15 11 10 9 3 2

--------------------------------
Process exited after 0.1942 seconds with return value 0
Press any key to continue . . .
```

5. Insertion, selection dan bubble sort 102, 92, 83, 42, 27, 21, 20, 15, 11, 10, 9, 3, 2 (ascending)

Insertion Sort No. 5

No. 5 Insertion sort - asc.cpp

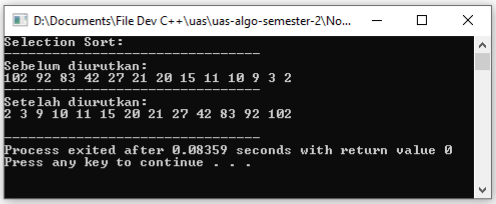
```cpp
#include<iostream>
using namespace std;

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

int main()
{
    int i,
        jmlData = 13,
        n = jmlData - 1,
        data[] = {102, 92, 83, 42, 27, 21, 20, 15, 11, 10, 9, 3, 2};

    cout<<"Insertion Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for (i = 0; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;

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

    InsertionSort(data, n);

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

void InsertionSort(int array1[], int n)
{
    int i, j, x;
    bool ketemu;

    for(i = 1; i <= n; i++)
    {
        x = array1[i];
        j = i - 1;
        ketemu = false;

        while ((j >= 0) && (!ketemu))
        {
            if (x < array1[j])
            {
                array1[j+1] = array1[j];
                j = j - 1;
            }
            else
            {
                ketemu = true;
            }
        }

        array1[j+1] = x;
    }
}
```

```
D:\Documents\File Dev C++\uas\uas-algo-semester-2\No. ...
Insertion Sort:
--------------------------------
Sebelum diurutkan:
102 92 83 42 27 21 20 15 11 10 9 3 2
--------------------------------
Setelah diurutkan:
2 3 9 10 11 15 20 21 27 42 83 92 102

--------------------------------
Process exited after 0.06623 seconds with return value 0
Press any key to continue . . .
```

Selection Sort No. 5

No. 5 Selection sort - asc.cpp | No. 5 Bubble sort - asc.cpp | No. 5 Insertion sort - asc.cpp

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

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

int main()
{
    int i,
    n = 13,
    data[] = {102, 92, 83, 42, 27, 21, 20, 15, 11, 10, 9, 3, 2};
    cout<<"Selection Sort: "<<endl;
    cout<<"--------------------------------"<<endl;
    cout<<"Sebelum diurutkan: "<<endl;
    for(i = 0; i < n; i++)
    {
        cout<<data[i]<<" ";
    }
    cout<<endl;
    cout<<"--------------------------------"<<endl;
    selectionSort(data, n);
    cout<<"Setelah diurutkan: "<<endl;

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

    cout<<endl;

    return 0;
}

void selectionSort(int array[], int n)
{
    int i, j, imin, temp;
    for(i = 0; i < n - 1; i++)
    {
        imin = i;
        for(j = i+1; j < n; j++)
        {
            if(array[j] < array[imin])
            {
                imin = j;
            }
        }

        temp = array[i];
        array[i] = array[imin];
        array[imin] = temp;
    }
}
```



Bubble Sort No. 5

No. 5 Bubble sort - asc.cpp | No. 5 Insertion sort - asc.cpp

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

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

int main()
{
    int i,
    n = 13,
    data[] = {102, 92, 83, 42, 27, 21, 20, 15, 11, 10, 9, 3, 2};
    cout<<"Bubble Sort: "<<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 = 1; i <= n; i++)
    {
        cout<<data[i]<<" ";
    }

    cout<<endl;

    return 0;
}

void BubbleSort(int array1[], int n)
{
    int i, j, tmp;
    for(i = 0; 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++\uas\uas-algo-semester-2\N...
Bubble Sort:
--------------------------------
Sebelum diurutkan:
102 92 83 42 27 21 20 15 11 10 9 3 2
--------------------------------
Setelah diurutkan:
2 3 9 10 11 15 20 21 27 42 83 92 102

--------------------------------
Process exited after 0.06234 seconds with return value 0
Press any key to continue . . .
```

UNIVERSITAS PAMULANG
KARTU UJIAN AKHIR SEMESTER GENAP 2020/2021
NOMOR UJIAN : 971901268685

FAKULTAS / PRODI : TEKNIK / TEKNIK INFORMATIKA

NAMA MAHASISWA : ANDRI FIRMAN SAPUTRA

NIM : 201011402125

SHIFT : REGULER A

No	Hari/ Tanggal	Waktu	Ruang	Kelas	Mata Kuliah	Paraf
1	-			02TPLP023	PENDIDIKAN KEWARGANEGARAAN	1
2	-			02TPLP023	BAHASA INDONESIA	2
3	-			02TPLP023	KALKULUS 2	3
4	-			02TPLP023	FISIKA DASAR 2	4
5	-			02TPLP023	ALGORITHMA DAN PEMROGRAMAN II	5
6	-			02TPLP023	PRAKTIKUM ALGORITHMA DAN PEMROGRAMAN	6
7	-			02TPLP023	KOMUNIKASI DATA	7
8	-			02TPLP023	BAHASA INGGRIS II	8
9	-			02TPLP023	KOMPUTER DAN MASYARAKAT	9

Peraturan dan Tata Tertib Peserta Ujian

1. Peserta ujian harus berpakaian rapi, sopan dan memakai jaket Almamater
2. Peserta ujian sudah berada di ruangan sepuluh menit sebelum ujian dimulai
3. Peserta ujian yang terlambat diperkenankan mengikuti ujian setelah mendapat ijin, tanpa perpanjangan waktu
4. Peserta ujian hanya diperkenankan membawa alat-alat yang ditentukan oleh panitia ujian
5. Peserta ujian dilarang membantu teman, mencontoh dari teman dan tindakan-tindakan lainnya yang mengganggu peserta ujian lain
6. Peserta ujian yang melanggar tata tertib ujian dikenakan sanksi akademik

Tangerang Selatan, 2 Juli 2021
Ketua Panitia Ujian

UBAID AL FARUQ, S.Pd., M. Pd
NIDN. 0418028702

UNIVERSITAS PAMULANG
DATA PEMBAYARAN SEMESTER GENAP 2020/2021

FAKULTAS / PRODI : TEKNIK / TEKNIK INFORMATIKA

NAMA MAHASISWA : ANDRI FIRMAN SAPUTRA

NIM : 201011402125

SHIFT : REGULER A

DATA PEMBAYARAN TAGIHAN UANG KULIAH

NO	NOMOR TAGIHAN	NO URUT	PEMBAYARAN	JML BAYAR	STATUS BAYAR	TGL BAYAR	CHANNEL	TEMPAT BAYAR
1	2020119141902201	1	REGISTRASI	400000	LUNAS	2021-02-08 13:44:43.858000	KASIR	BPR
2	2020119141902301	2	SKS2	200000	LUNAS	2021-04-06 11:39:12.786000	KASIR	BPR
3	2020119141902401	3	SKS3	200000	LUNAS	2021-04-06 11:39:13.847000	KASIR	BPR
4	2020119141900501	4	UTS	250000	LUNAS	2021-04-06 11:39:14.964000	KASIR	BPR
5	2020119141902501	5	SKS4	200000	LUNAS	2021-06-29 13:26:11.033000	KASIR	BPR
6	2020119141902601	6	SKS5	200000	LUNAS	2021-06-29 13:26:12.048000	KASIR	BPR
7	2020119141902701	7	SKS6	200000	LUNAS	2021-06-29 13:26:13.023000	KASIR	BPR
8	2020119141900401	8	PRAKTEK	100000	LUNAS	2021-06-29 13:26:13.962000	KASIR	BPR
9	2020119141900601	9	UAS	250000	LUNAS	2021-06-29 13:26:15.000000	KASIR	BPR

DATA PEMBAYARAN TAGIHAN LAINNYA

NO	NOMOR TAGIHAN	NO URUT	PEMBAYARAN	JML BAYAR	STATUS BAYAR	TGL BAYAR	CHANNEL	TEMPAT BAYAR