LAPORAN UAS STRUKTUR DATA
ADJACENCY LIST UNDIRECTED GRAPH

Disusun oleh :

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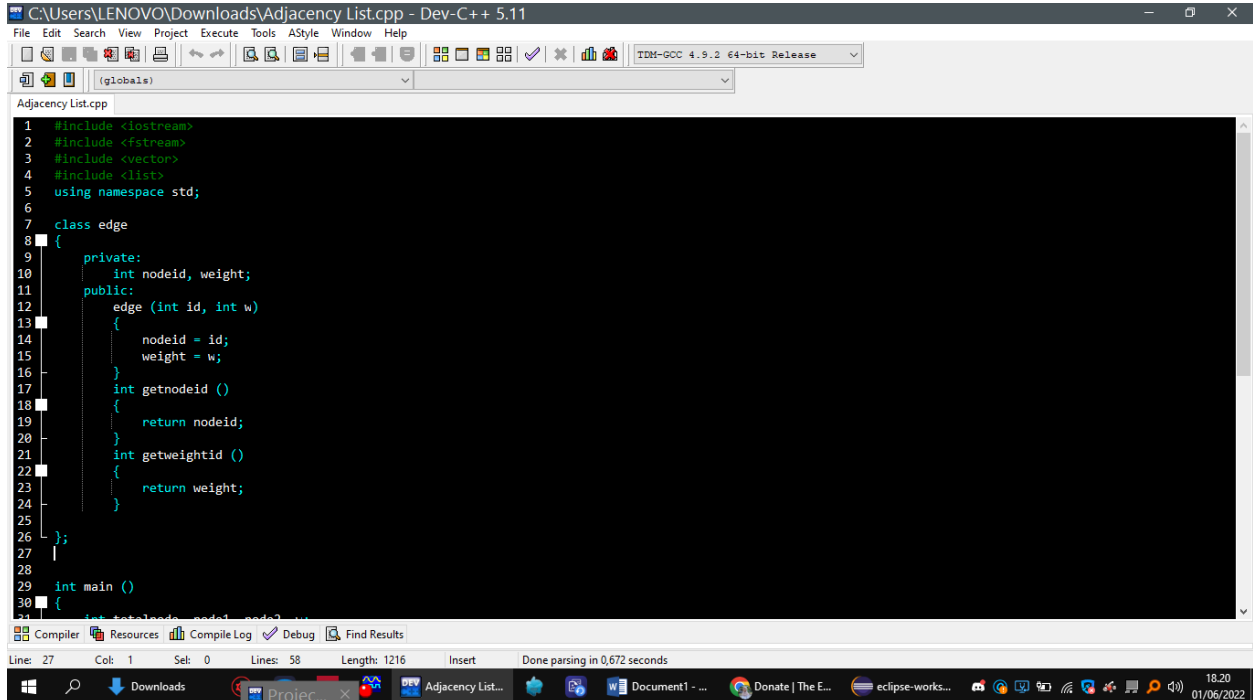
Kelas   : 2021B

NIM   : 21091397034
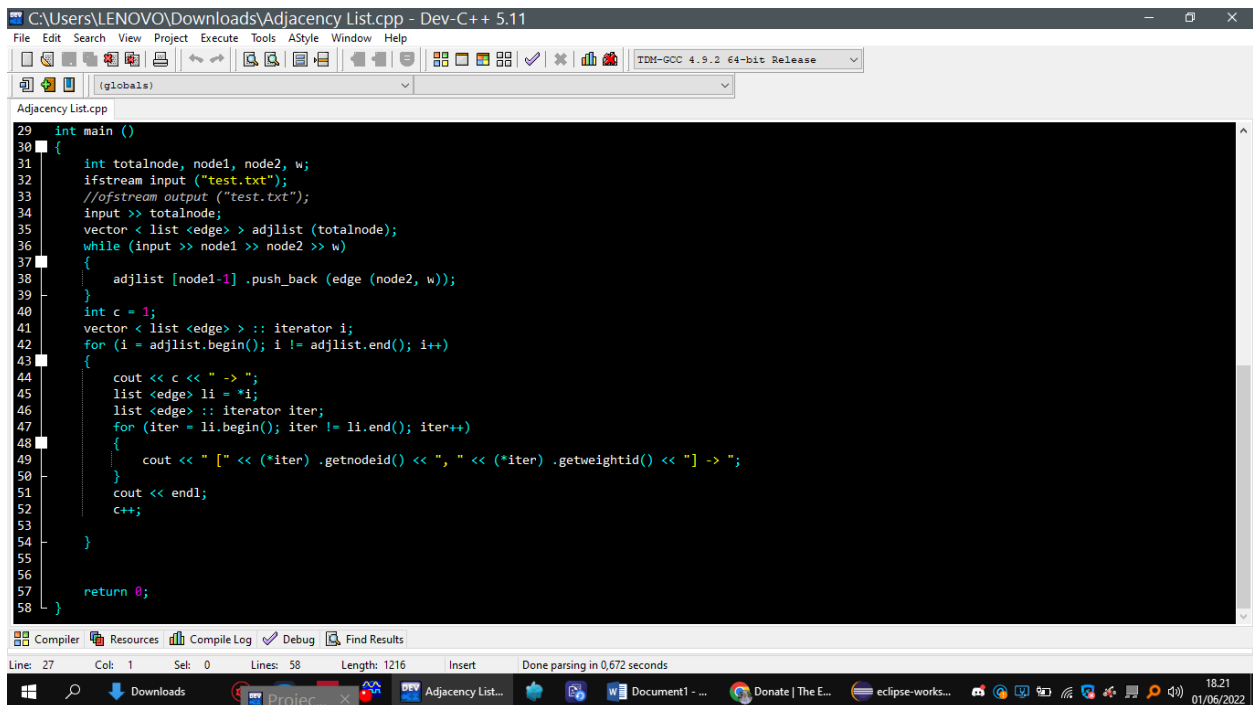
UNIVERSITAS NEGERI SURABAYA
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A. Source Code


```cpp
#include <iostream>
#include <fstream>
#include <vector>
#include <list>
using namespace std;

class edge
{
    private:
        int nodeid, weight;
    public:
        edge (int id, int w)
        {
            nodeid = id;
            weight = w;
        }
        int getnodeid ()
        {
            return nodeid;
        }
        int getweightid ()
        {
            return weight;
        }
};


int main ()
{
```
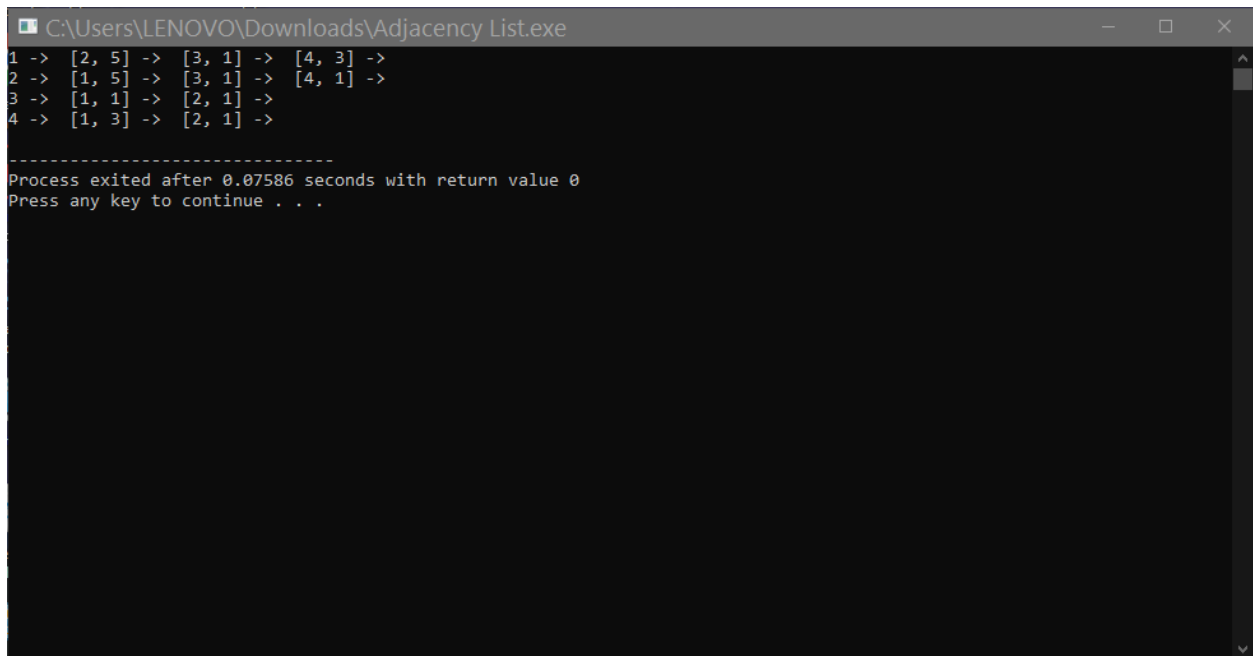


```cpp
int main ()
{
    int totalnode, node1, node2, w;
    ifstream input ("test.txt");
    //ofstream output ("test.txt");
    input >> totalnode;
    vector < list <edge> > adjlist (totalnode);
    while (input >> node1 >> node2 >> w)
    {
        adjlist [node1-1] .push_back (edge (node2, w));
    }
    int c = 1;
    vector < list <edge> > :: iterator i;
    for (i = adjlist.begin(); i != adjlist.end(); i++)
    {
        cout << c << " -> ";
        list <edge> li = *i;
        list <edge> :: iterator iter;
        for (iter = li.begin(); iter != li.end(); iter++)
        {
            cout << " [" << (*iter) .getnodeid() << ", " << (*iter) .getweightid() << "] -> ";
        }
        cout << endl;
        c++;

    }


    return 0;
}
```

B. Input

```
test - Notepad
File  Edit  Format  View  Help
4
1 2 5
1 3 1
1 4 3
2 1 5
2 3 1
2 4 1
3 1 1
3 2 1
4 1 3
4 2 1
```

Ln 1, Col 1   100%   Windows (CRLF)   UTF-8

C. Output

```
C:\Users\LENOVO\Downloads\Adjacency List.exe
1 -> [2, 5] -> [3, 1] -> [4, 3] ->
2 -> [1, 5] -> [3, 1] -> [4, 1] ->
3 -> [1, 1] -> [2, 1] ->
4 -> [1, 3] -> [2, 1] ->

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Process exited after 0.07586 seconds with return value 0
Press any key to continue . . .
```