LAPORAN UJIAN AKHIR SEMESTER

STRUKTUR DATA

Disusun oleh : Aditya Ramadhan Wahyu Santoso (21091397055)

` KELAS 2021 A

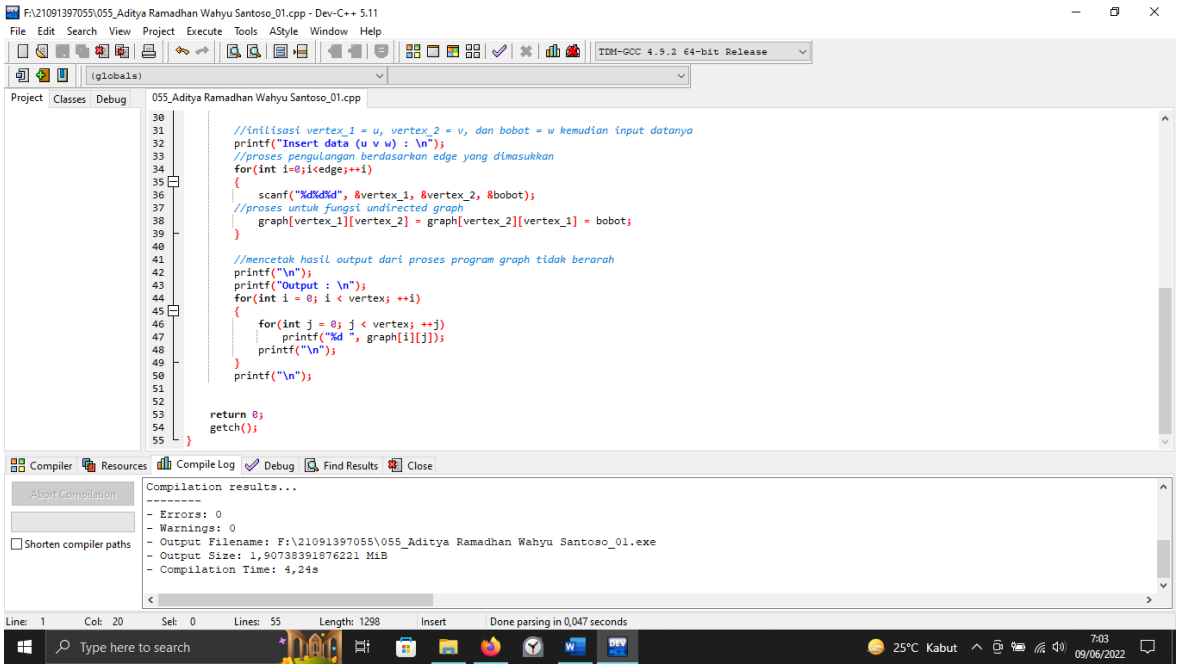
PRODI D4 MANAJEMEN INFORMATIKA

UNIVERSITAS NEGERI SURABAYA

2021/2022

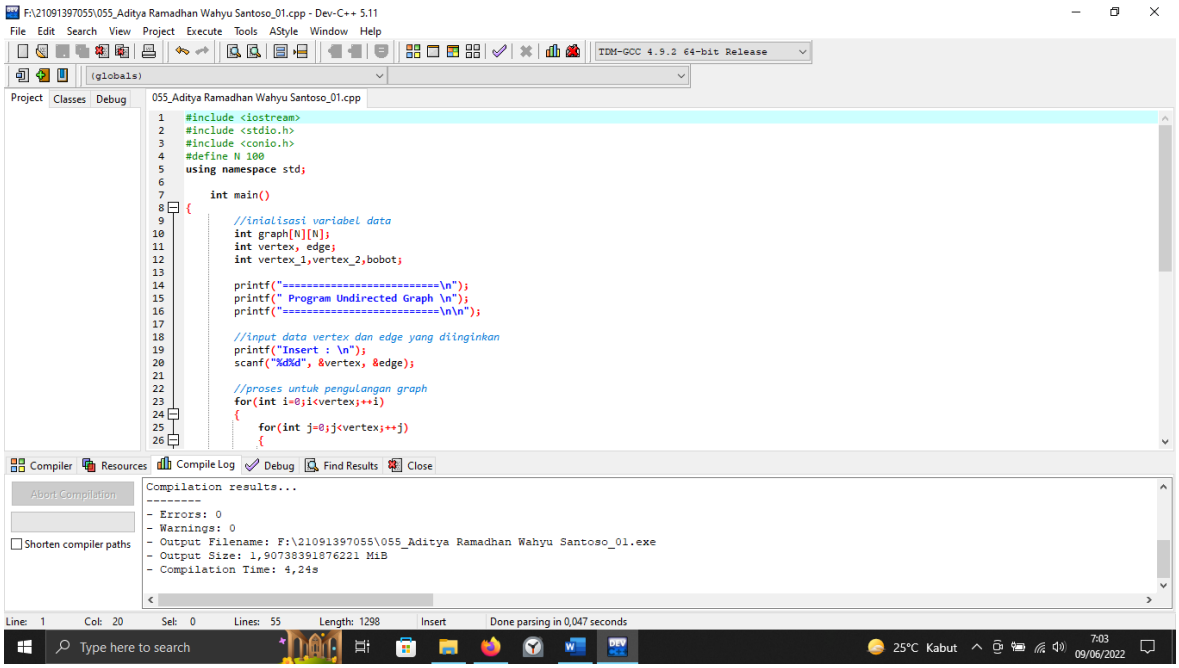
Nomor 1

Codingan



```
//inilisasi vertex_1 = u, vertex_2 = v, dan bobot = w kemudian input datanya
printf("Insert data (u v w) : \n");
//proses pengulangan berdasarkan edge yang dimasukkan
for(int i=0;i<edge;++i)
{
    scanf("%d%d%d", &vertex_1, &vertex_2, &bobot);
//proses untuk fungsi undirected graph
    graph[vertex_1][vertex_2] = graph[vertex_2][vertex_1] = bobot;
}

//mencetak hasil output dari proses program graph tidak berarah
printf("\n");
printf("Output : \n");
for(int i = 0; i < vertex; ++i)
{
    for(int j = 0; j < vertex; ++j)
        printf("%d ", graph[i][j]);
    printf("\n");
}
printf("\n");


return 0;
getch();
}
```

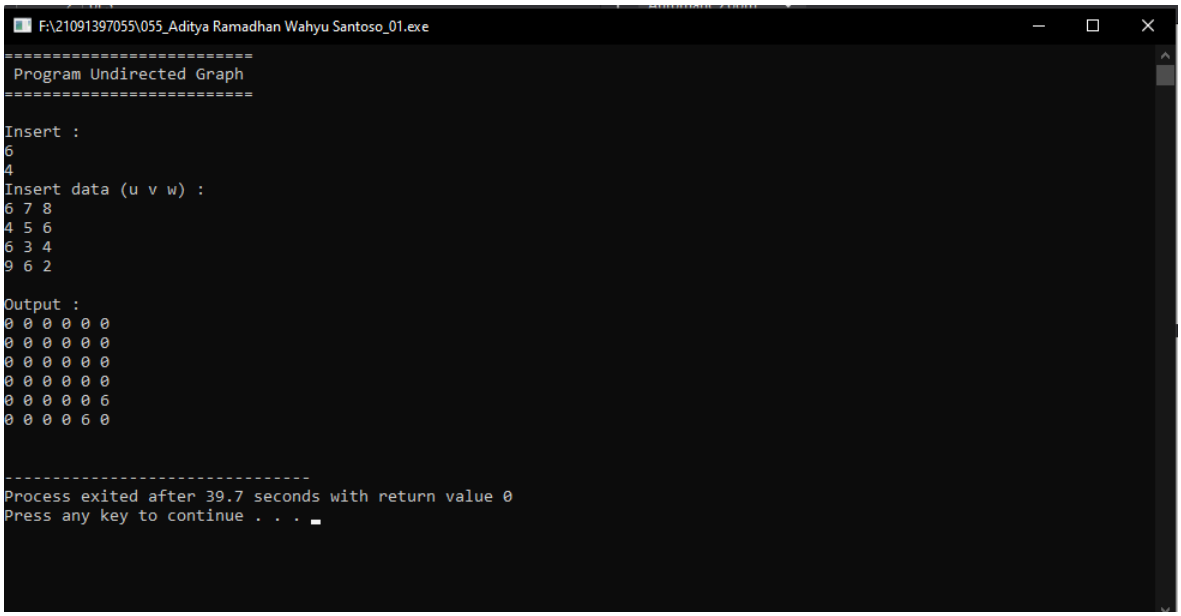
```
Compilation results...
--------
- Errors: 0
- Warnings: 0
- Output Filename: F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_01.exe
- Output Size: 1,90738391876221 MiB
- Compilation Time: 4,24s
```



```
#include <iostream>
#include <stdio.h>
#include <conio.h>
#define N 100
using namespace std;

    int main()
{
    //inialisasi variabel data
    int graph[N][N];
    int vertex, edge;
    int vertex_1,vertex_2,bobot;

    printf("=========================\n");
    printf(" Program Undirected Graph \n");
    printf("=========================\n\n");

    //input data vertex dan edge yang diinginkan
    printf("Insert : \n");
    scanf("%d%d", &vertex, &edge);

    //proses untuk pengulangan graph
    for(int i=0;i<vertex;++i)
    {
        for(int j=0;j<vertex;++j)
        {
```

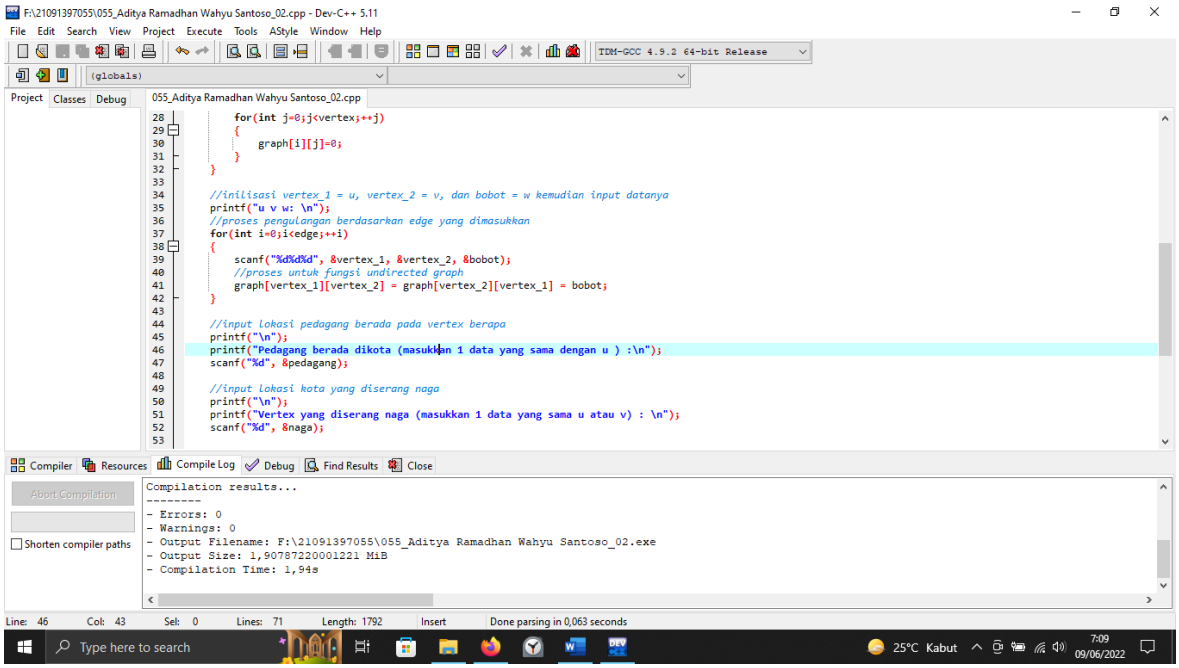
```
Compilation results...
--------
- Errors: 0
- Warnings: 0
- Output Filename: F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_01.exe
- Output Size: 1,90738391876221 MiB
- Compilation Time: 4,24s
```

Output:

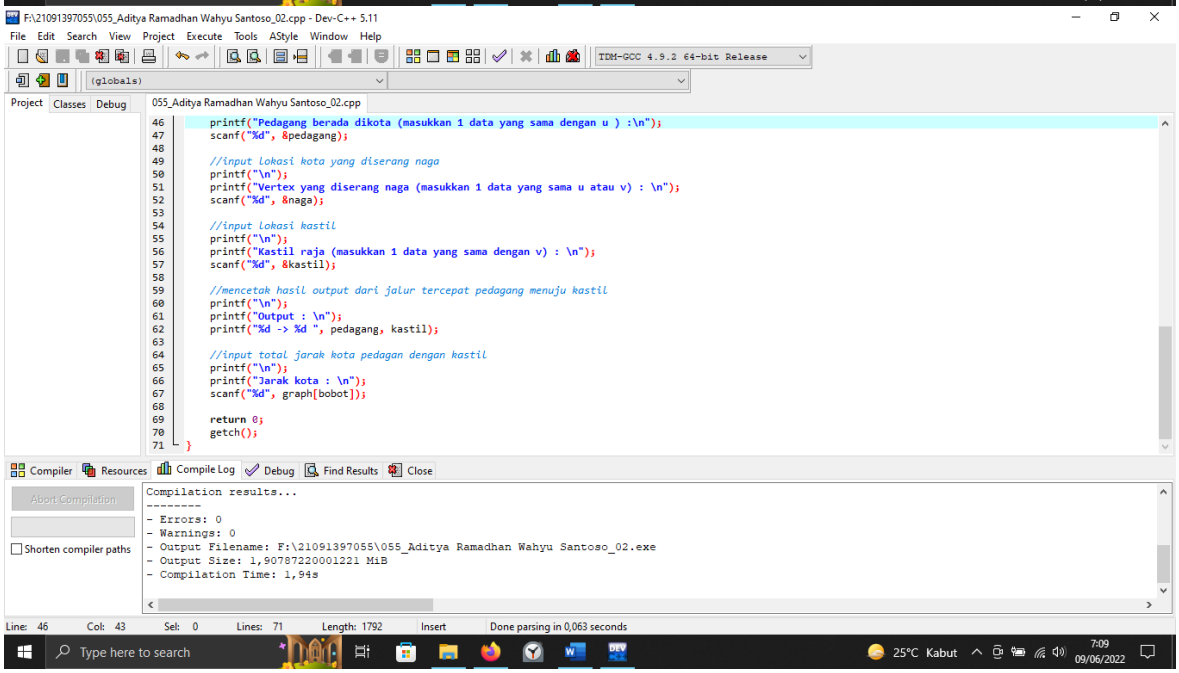


Nomor 2 :

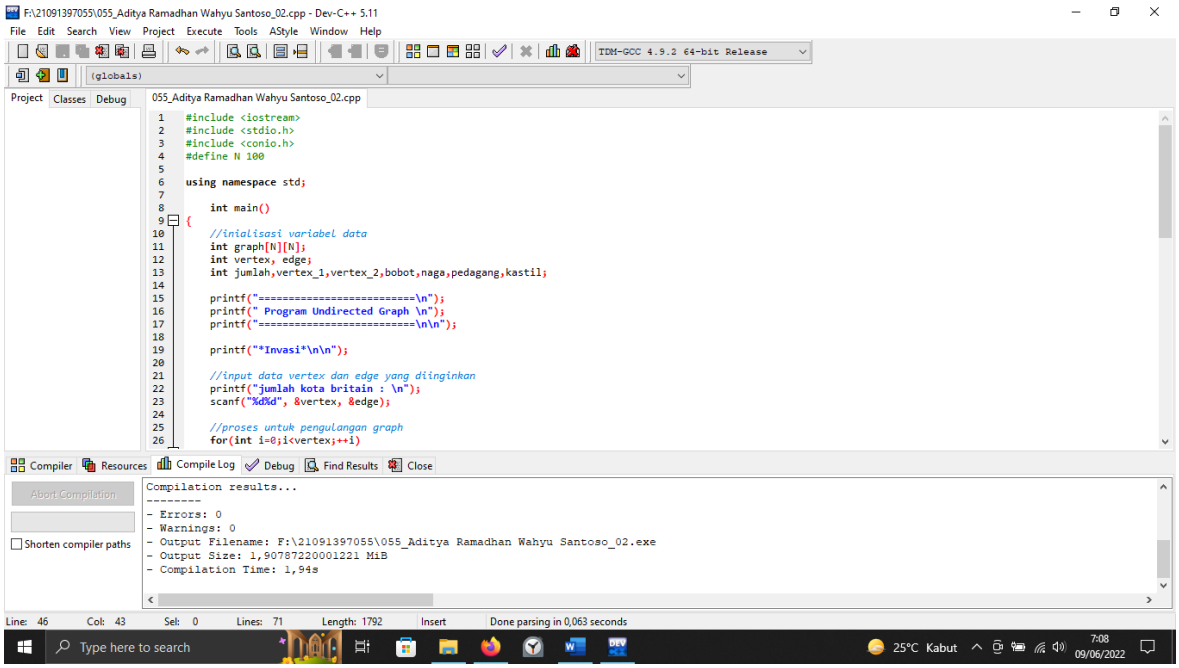
Codingan:


F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.cpp - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
Project Classes Debug
055_Aditya Ramadhan Wahyu Santoso_02.cpp
for(int j=0;j<vertex;++j)
{
graph[i][j]=0;
}
}
//inilisasi vertex_1 = u, vertex_2 = v, dan bobot = w kemudian input datanya
printf("u v w: \n");
//proses pengulangan berdasarkan edge yang dimasukkan
for(int i=0;i<edge;++i)
{
scanf("%d%d%d", &vertex_1, &vertex_2, &bobot);
//proses untuk fungsi undirected graph
graph[vertex_1][vertex_2] = graph[vertex_2][vertex_1] = bobot;
}
//input lokasi pedagang berada pada vertex berapa
printf("\n");
printf("Pedagang berada dikota (masukkan 1 data yang sama dengan u) :\n");
scanf("%d", &pedagang);
//input lokasi kota yang diserang naga
printf("\n");
printf("Vertex yang diserang naga (masukkan 1 data yang sama u atau v) : \n");
scanf("%d", &naga);
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.exe
- Output Size: 1,90787220001221 MiB
- Compilation Time: 1,94s
Line: 46 Col: 43 Sel: 0 Lines: 71 Length: 1792 Insert Done parsing in 0,063 seconds
Type here to search
25°C Kabut
7:09
09/06/2022


F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.cpp - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
Project Classes Debug
055_Aditya Ramadhan Wahyu Santoso_02.cpp
printf("Pedagang berada dikota (masukkan 1 data yang sama dengan u) :\n");
scanf("%d", &pedagang);
//input lokasi kota yang diserang naga
printf("\n");
printf("Vertex yang diserang naga (masukkan 1 data yang sama u atau v) : \n");
scanf("%d", &naga);
//input lokasi kastil
printf("\n");
printf("Kastil raja (masukkan 1 data yang sama dengan v) : \n");
scanf("%d", &kastil);
//mencetak hasil output dari jalur tercepat pedagang menuju kastil
printf("\n");
printf("Output : \n");
printf("%d -> %d ", pedagang, kastil);
//input total jarak kota pedagan dengan kastil
printf("\n");
printf("Jarak kota : \n");
scanf("%d", graph[bobot]);
return 0;
getch();
}
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.exe
- Output Size: 1,90787220001221 MiB
- Compilation Time: 1,94s
Line: 46 Col: 43 Sel: 0 Lines: 71 Length: 1792 Insert Done parsing in 0,063 seconds
Type here to search
25°C Kabut
7:09
09/06/2022


F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.cpp - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
Project Classes Debug
055_Aditya Ramadhan Wahyu Santoso_02.cpp
#include <iostream>
#include <stdio.h>
#include <conio.h>
#define N 100
using namespace std;
int main()
{
//inialisasi variabel data
int graph[N][N];
int vertex, edge;
int jumlah,vertex_1,vertex_2,bobot,naga,pedagang,kastil;
printf("==========================\n");
printf(" Program Undirected Graph \n");
printf("==========================\n\n");
printf("*Invasi*\n\n");
//input data vertex dan edge yang diinginkan
printf("jumlah kota britain : \n");
scanf("%d%d", &vertex, &edge);
//proses untuk pengulangan graph
for(int i=0;i<vertex;++i)
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.exe
- Output Size: 1,90787220001221 MiB
- Compilation Time: 1,94s
Line: 46 Col: 43 Sel: 0 Lines: 71 Length: 1792 Insert Done parsing in 0,063 seconds
Type here to search
25°C Kabut
7:08
09/06/2022

Output :


F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.exe
jumlah kota britain :
4
6
u v w:
6 7 4
5 7 4
8 4 3
5 4 3
6 7 8
3 4 7
Pedagang berada dikota (masukkan 1 data yang sama dengan u) :
8
Vertex yang diserang naga (masukkan 1 data yang sama u atau v) :
4
Kastil raja (masukkan 1 data yang sama dengan v) :
7
Output :
8 -> 7
Jarak kota :
3
Process exited after 40.88 seconds with return value 0
Press any key to continue . . .


F:\21091397055\055_Aditya Ramadhan Wahyu Santoso_02.exe
Program Undirected Graph
Invasi
jumlah kota britain :
4
6
u v w:
6 7 4
5 7 4
8 4 3
5 4 3
6 7 8
3 4 7
Pedagang berada dikota (masukkan 1 data yang sama dengan u) :
8
Vertex yang diserang naga (masukkan 1 data yang sama u atau v) :
4
Kastil raja (masukkan 1 data yang sama dengan v) :
7
Output :
8 -> 7
Jarak kota :
3