

**LAPORAN PRAKTIKUM**  
**ALGORITMA PEMROGRAMAN**  
**LANGKAH KEGIATAN & STUDI KASUS**



**Disusun oleh :**

**Suryadi**

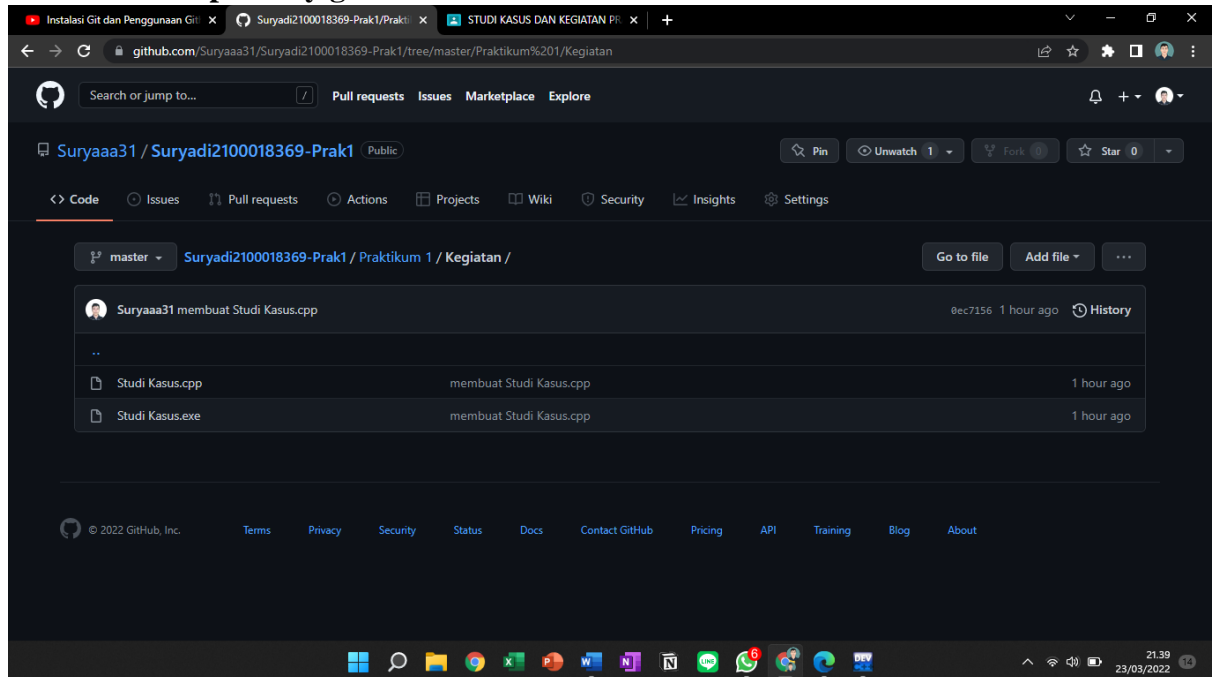
**2100018369**

**IF H**

**Rabu 10.30-13.30**

**PROGRAM STUDI INFORMATIKA**  
**FAKULTAS TEKNOLOGI INDUSTRI**  
**UNIVERSITAS AHMAD DAHLAN**  
**YOGYAKARTA 2022**

## 1. Screenshoot repository github Studi Kasus

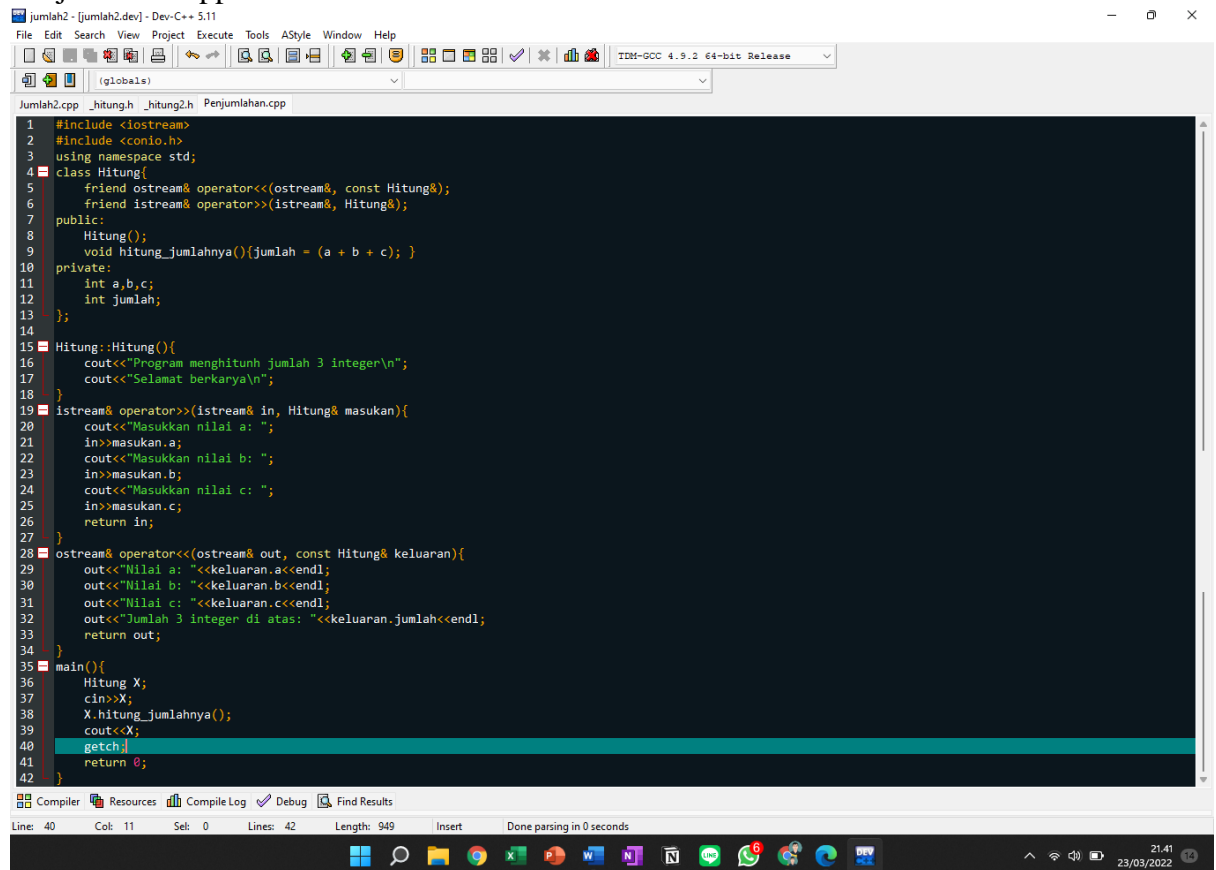


Link repository:

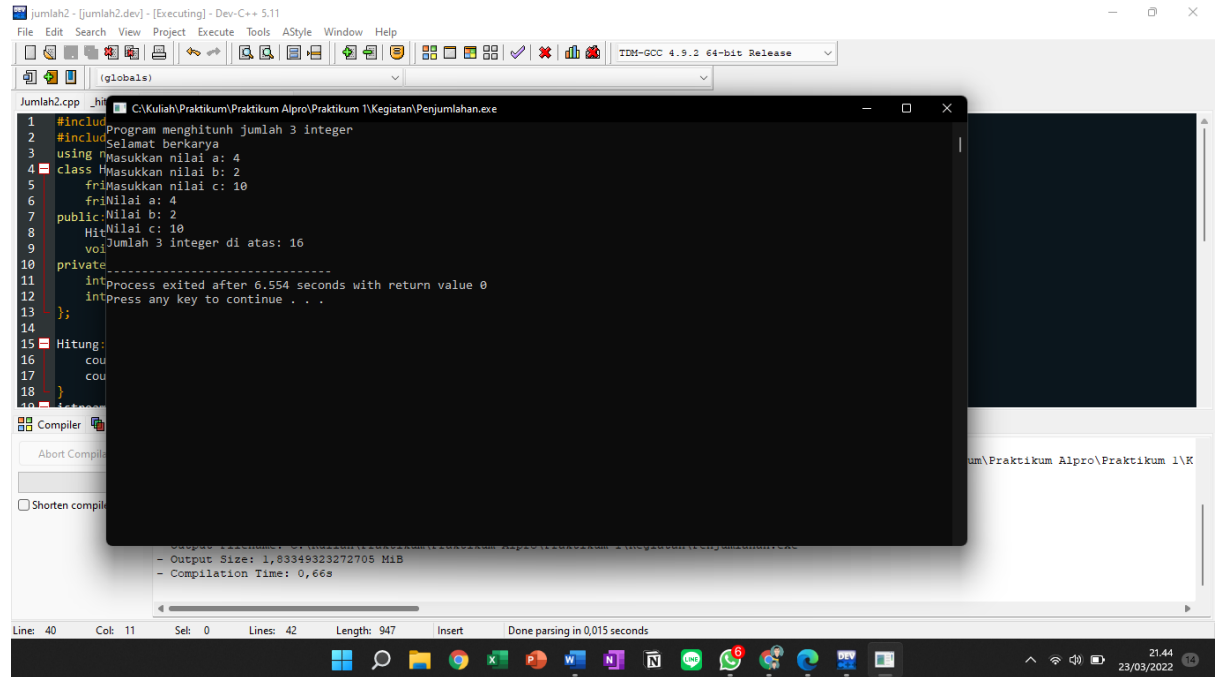
<https://github.com/Suryaaa31/Suryadi2100018369-Prak1.git>

## 2. Screenshoot langkah praktikum

### 1) Penjumlahan.cpp



## Hasil run

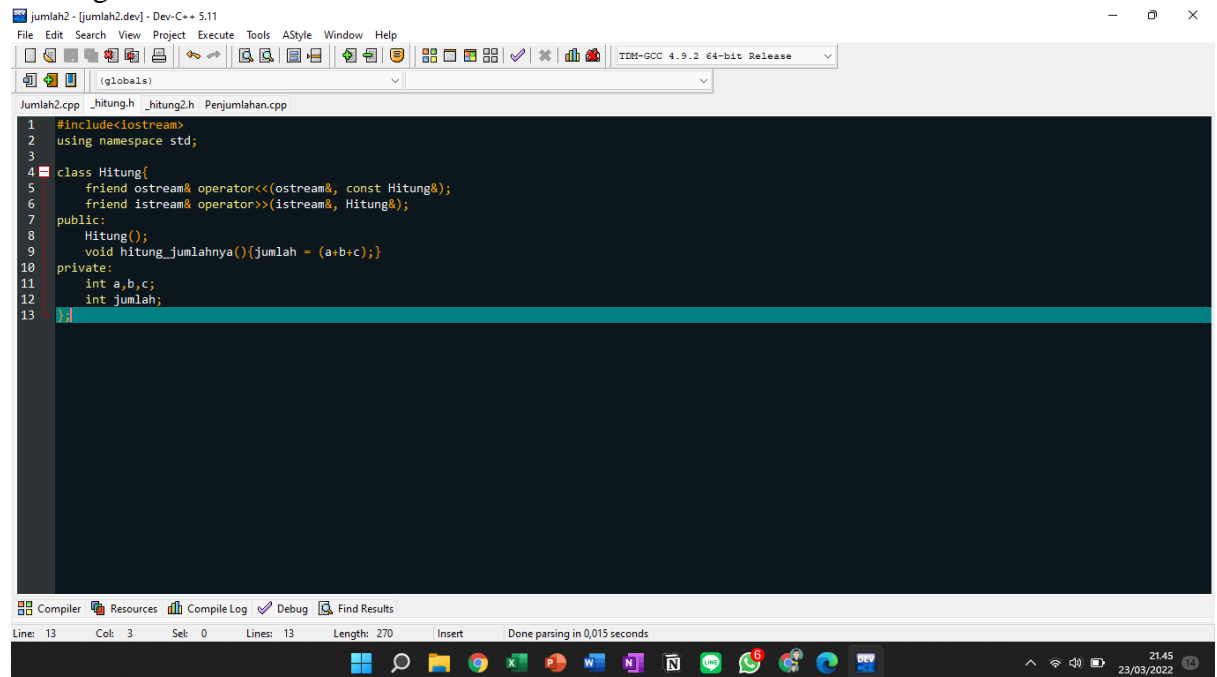


The screenshot shows a C++ IDE with a file named `Jumlah2.cpp` open. The code defines a class `Hitung` with a static method `hitung_jumlahnya` that calculates the sum of three integers. The program is executed, and the output window shows the result: `Output Size: 1,83949323272705 MiB` and `Compilation Time: 0,66s`. The status bar at the bottom indicates the line number is 40, column is 11, and the file is `Jumlah2.cpp`.

```
1 #include <iostream>
2 using namespace std;
3
4 class Hitung{
5     friend ostream& operator<<(ostream&, const Hitung&);
6     friend istream& operator>>(istream&, Hitung&);
7 public:
8     Hitung();
9     void hitung_jumlahnya(){jumlah = (a+b+c);}
10 private:
11     int a,b,c;
12     int jumlah;
13 };
14
15 int main()
16 {
17     Hitung h;
18     h.a = 4;
19     h.b = 4;
20     h.c = 10;
21     h.hitung_jumlahnya();
22     cout<<"Jumlah 3 integer di atas: " << h.jumlah << endl;
23     return 0;
24 }
```

## 2) Dengan library

### \_hitung.h



The screenshot shows a C++ IDE with a file named `_hitung.h` open. The code defines a class `Hitung` with a static method `hitung_jumlahnya` that calculates the sum of three integers. The program is executed, and the output window shows the result: `Output Size: 1,83949323272705 MiB` and `Compilation Time: 0,66s`. The status bar at the bottom indicates the line number is 13, column is 3, and the file is `_hitung.h`.

```
1 #include <iostream>
2 using namespace std;
3
4 class Hitung{
5     friend ostream& operator<<(ostream&, const Hitung&);
6     friend istream& operator>>(istream&, Hitung&);
7 public:
8     Hitung();
9     void hitung_jumlahnya(){jumlah = (a+b+c);}
10 private:
11     int a,b,c;
12     int jumlah;
13 };
14
15 int main()
16 {
17     Hitung h;
18     h.a = 4;
19     h.b = 4;
20     h.c = 10;
21     h.hitung_jumlahnya();
22     cout<<"Jumlah 3 integer di atas: " << h.jumlah << endl;
23     return 0;
24 }
```

## hitung2.h

```
jumlah2 - [jumlah2.dev] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Jumlah2.cpp _hitung.h _hitung2.h Penjumlahan.cpp

1 #include "_hitung.h"
2
3 Hitung::Hitung(){
4     cout<<"Program menghitung jumlah 3 integer\n";
5     cout<<"Selamat berkarya\n";
6 }
7 istream& operator>>(istream& in, Hitung& masukan){
8     cout<<"Masukkan nilai a: ";
9     in>>masukan.a;
10    cout<<"Masukkan nilai b: ";
11    in>>masukan.b;
12    cout<<"Masukkan nilai c: ";
13    in>>masukan.c;
14    return in;
15 }
16 ostream& operator<<(ostream& out, const Hitung& keluaran){
17     out<<"Nilai a: "<<keluaran.a<<endl;
18     out<<"Nilai b: "<<keluaran.b<<endl;
19     out<<"Nilai c: "<<keluaran.c<<endl;
20     out<<"Jumlah 3 integer di atas: "<<keluaran.jumlah<<endl;
21     return out;
22 }
```

Compiler Resources Compile Log Debug Find Results

Line: 22 Col: 2 Sel: 0 Lines: 22 Length: 584 Insert Done parsing in 0,015 seconds

21:45 23/03/2022

## Jumlah2.cpp

```
jumlah2 - [jumlah2.dev] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Jumlah2.cpp _hitung.h _hitung2.h Penjumlahan.cpp

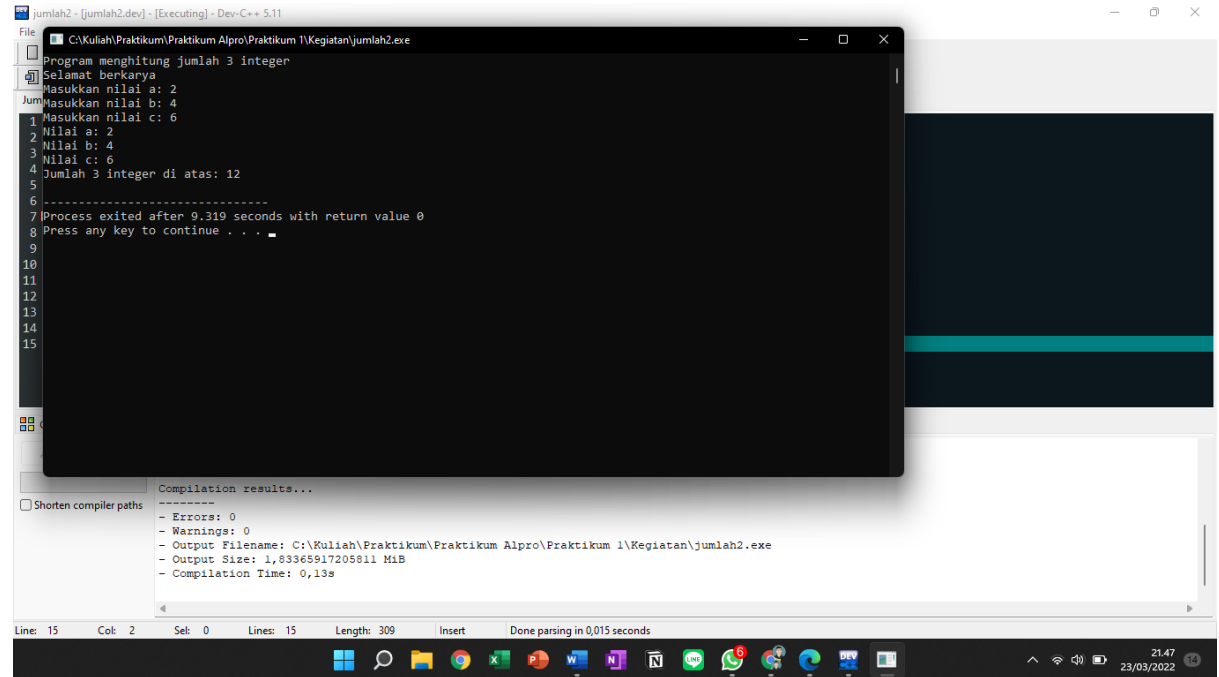
1 #include<iostream>
2 #include<conio.h>
3 #include "_hitung2.h"
4 using namespace std;
5 /* run this program using the console pauser or add your own getch, system("pause") or input loop */
6
7 int main(int argc, char** argv) {
8     Hitung X;
9     cin>>X;
10    X.hitung_jumlahnya();
11    cout<<X;
12    getch();
13
14    return 0;
15 }
```

Compiler Resources Compile Log Debug Find Results

Line: 15 Col: 2 Sel: 0 Lines: 15 Length: 309 Insert Done parsing in 0,015 seconds

21:46 23/03/2022

## Hasil run



The screenshot shows the Dev-C++ IDE with a C++ program running. The program prompts the user to enter three integers and calculates their sum. The output shows the sum of 2, 4, and 6 is 12. The compilation results panel at the bottom shows no errors or warnings.

```
jumlah2 - [jumlah2.dev] - [Executing] - Dev-C++ 5.11
File
  C:\Kuliah\Praktikum\Praktikum Alpro\Praktikum 1\Kegiatan\jumlah2.exe
  Program menghitung jumlah 3 integer
  Selamat berkarya
  Masukkan nilai a: 2
  Masukkan nilai b: 4
  Masukkan nilai c: 6
  Jumlah 3 integer di atas: 12
  -----
  Process exited after 9.319 seconds with return value 0
  Press any key to continue . . .
```

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Kuliah\Praktikum\Praktikum Alpro\Praktikum 1\Kegiatan\jumlah2.exe
- Output Size: 1,83965917205911 MiB
- Compilation Time: 0,13s

Line: 15 Col: 2 Sel: 0 Lines: 15 Length: 309 Insert Done parsing in 0,015 seconds

21:47 23/03/2022