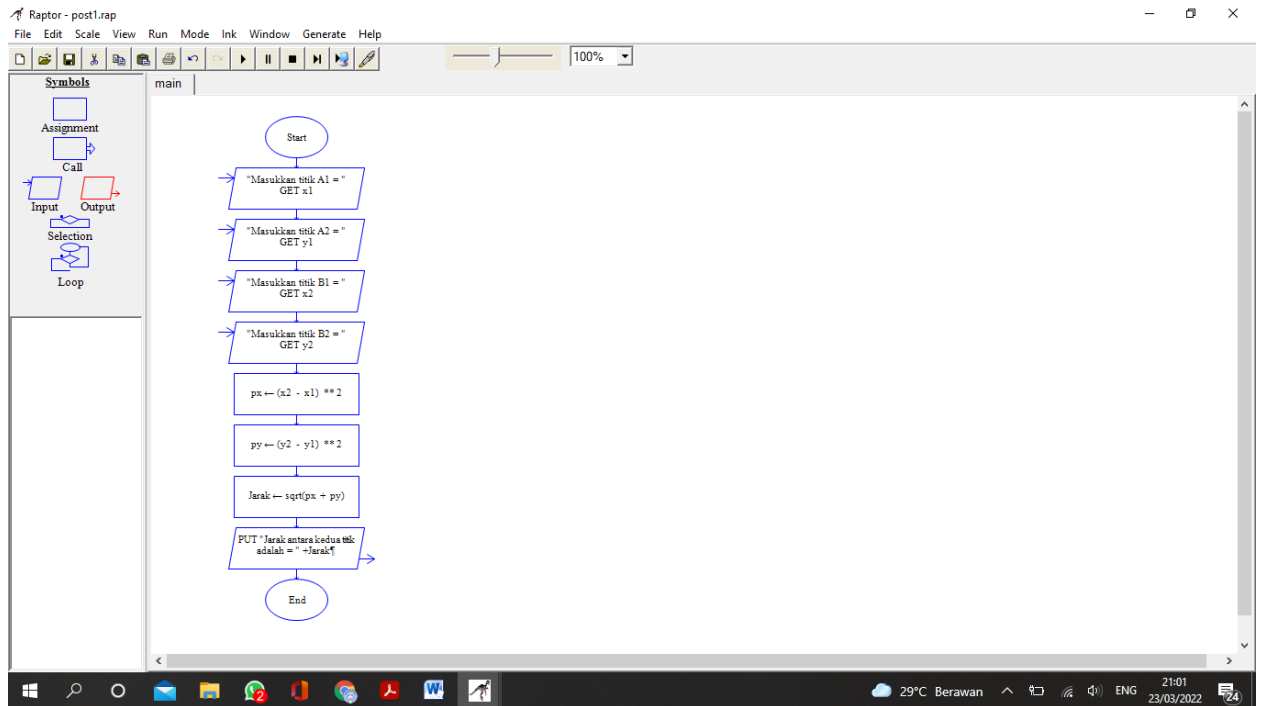
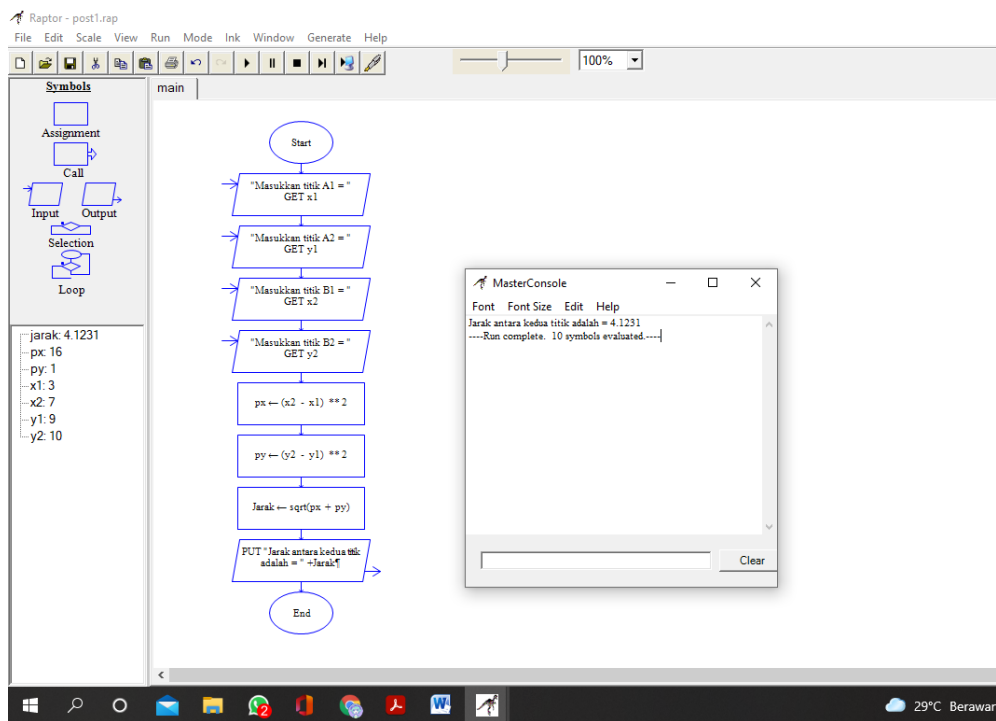


## POSTEST 1

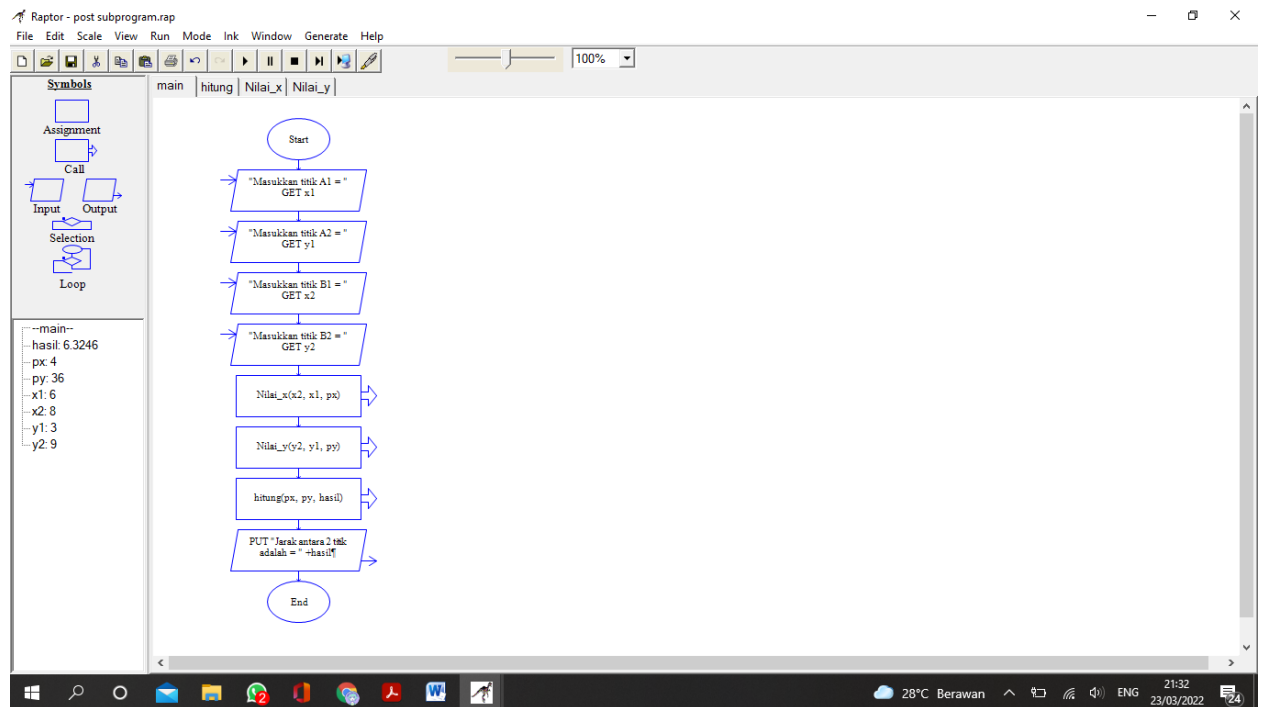
1. Buat flowchart untuk menghitung jarak antara dua titik A(x1,y1) dan B(x2,y2)



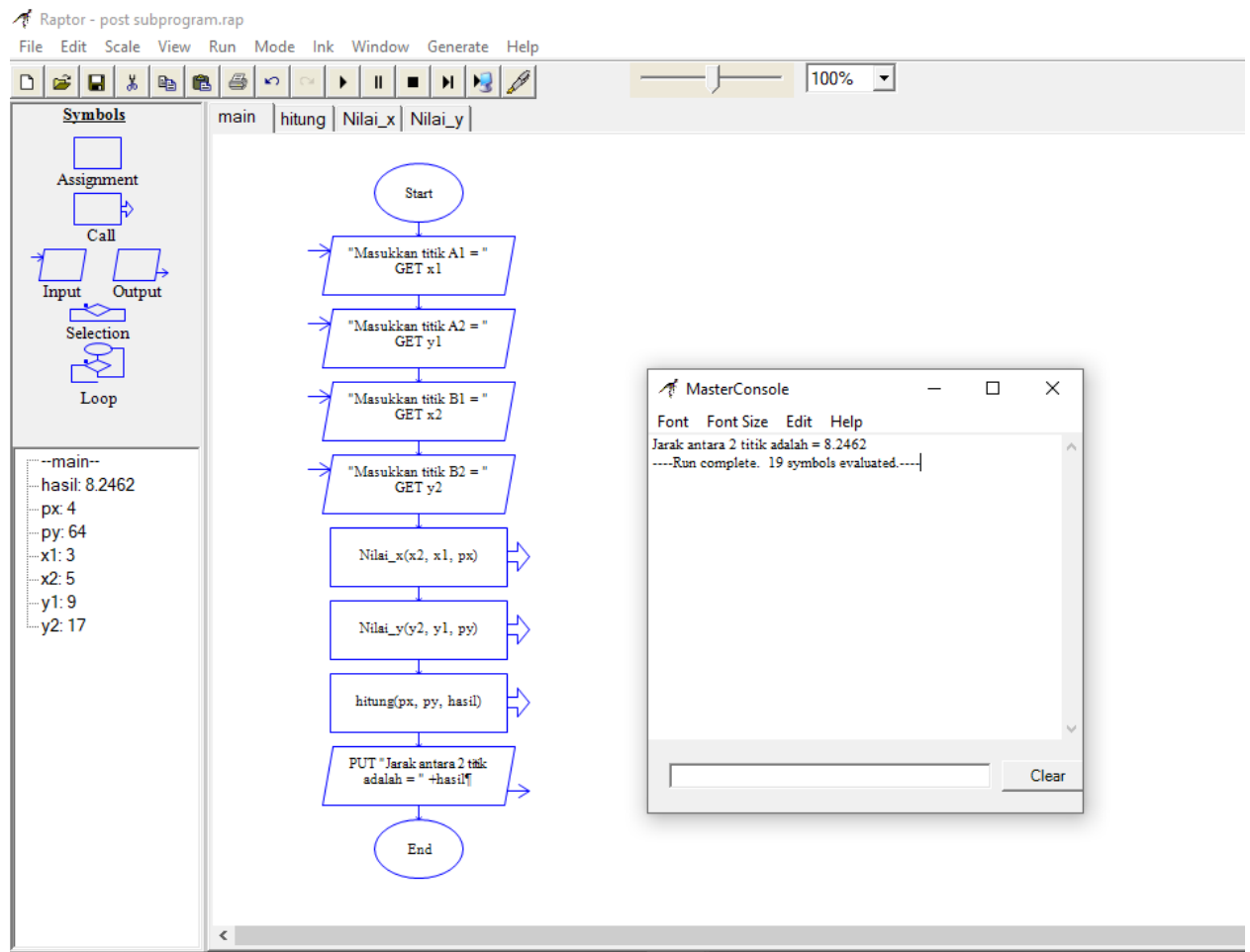
Saat di run akan muncul seperti ini :



## 2. Menggunakan sub program dalam flowchart di atas



Contoh saat di run :



- Konversi hasil flowchart no 1 dan no 2  
Konversi flowchart no 1 :

The screenshot shows the Dev-C++ IDE with the file `Postest1.cpp` open. The code is a C++ program that calculates the distance between two points A1 and A2. It includes `<iostream>` and `<math.h>`, uses the `std` namespace, and defines a `main` function. The program prompts the user for the coordinates of two points, calculates the distance using the Pythagorean theorem, and prints the result. The compilation results show that the program compiled successfully with no errors or warnings.

```
1 #include <iostream>
2 #include <math.h>
3 using namespace std;
4
5 int main(){
6     int x1, x2, y1, y2; // input
7     int px, py; // output
8     float jarak; // output
9     cout << "Program mencari jarak antara 2 titik \n";
10    cout << "-----\n";
11    cout << "Input titik A1 : "; cin >> x1;
12    cout << "\nInput titik A2 : "; cin >> y1;
13    cout << "\nInput titik B1 : "; cin >> x2;
14    cout << "\nInput titik B2 : "; cin >> y2;
15    // proses
16    px = (x2 - x1) * (x2 - x1);
17    py = (y2 - y1) * (y2 - y1);
18    jarak = sqrt(px + py);
19    // hasil
20    cout << "Jarak kedua titik adalah : "<< jarak << endl;
21    return 0;
22 }
```

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: F:\Collage\Sem 2\PRAKTIKUM\ALPRO\Pertemuan 1\Postest\Postest1 subprogram.exe
- Output Size: 1,83721351623535 MiB
- Compilation Time: 1,97s

Hasil output :

The screenshot shows the output of the `Postest1.exe` program. The program prompts the user for the coordinates of two points, calculates the distance, and prints the result. The output shows that the program executed successfully and returned a value of 0.

```
Program mencari jarak antara 2 titik
Input titik A1 : 5
Input titik A2 : 6
Input titik B1 : 8
Input titik B2 : 12
Jarak kedua titik adalah : 6.7082
-----
Process exited after 17.76 seconds with return value 0
Press any key to continue . . .
```

Konversi flowchart no 2 :

```
1 #include <iostream>
2 #include <math.h>
3 #include "post1.h"
4 using namespace std;
5
6 int main(){
7     int x1, x2, y1, y2; // input
8     int px, py; // output
9     float jarak; // output
10    cout << "Program mencari jarak antara 2 titik \n";
11    cout << "===== \n";
12    cout << "Input titik A1 : "; cin >> x1;
13    cout << "\nInput titik A2 : "; cin >> y1;
14    cout << "\nInput titik B1 : "; cin >> x2;
15    cout << "\nInput titik B2 : "; cin >> y2;
16    // proses
17    px=Nilai_x(x1,x2);
18    py=Nilai_y(y1,y2);
19    jarak=Jarak(px,py);
20    // hasil
21    cout << "Jarak kedua titik adalah : "<<jarak<<endl;
22    return 0;
23 }
```

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: F:\Collage\Sem 2\PRATIUM\ALPRO\Pertemuan 1\Postest\Post1 subprogram.exe
- Output Size: 1,83721351623535 MiB
- Compilation Time: 1,97s

File header “post1.h” :

```
1 #include <iostream>
2 #include <math>
3 int Nilai_x(int a, int b){
4     int px;
5     return px = (a - b) * (a - b);
6 }
7 int Nilai_y(int a, int b){
8     int py;
9     return py = (a - b) * (a - b);
10 }
11 float Jarak(int a, int b){
12     float jrk;
13     return jrk = sqrt(a - b);
14 }
```

Hasil output :

F:\Collage\Sem 2\PRAKTIKUM\ALPRO\Pertemuan 1\Postest\Post1 subprogram.exe

Program mencari jarak antara 2 titik

=====

Input titik A1 : 4

Input titik A2 : 7

Input titik B1 : 5

Input titik B2 : 10

Jarak kedua titik adalah : 3.16228

-----

Process exited after 13.66 seconds with return value 0

Press any key to continue . . .