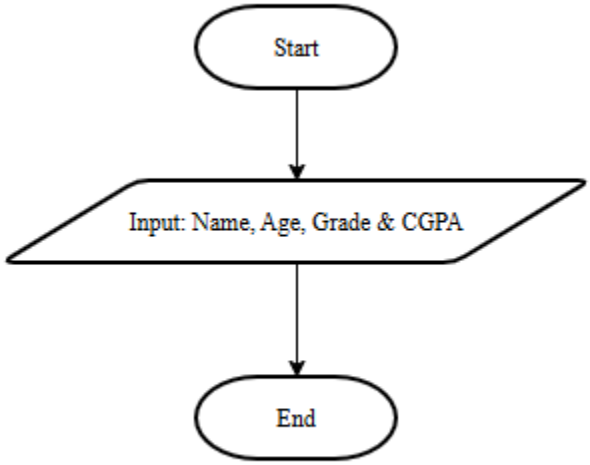
LAB # 01

Task 02:

Draw a flowchart & Write a C++ program to store statement record such as (Name, Age, Grade and CGPA).

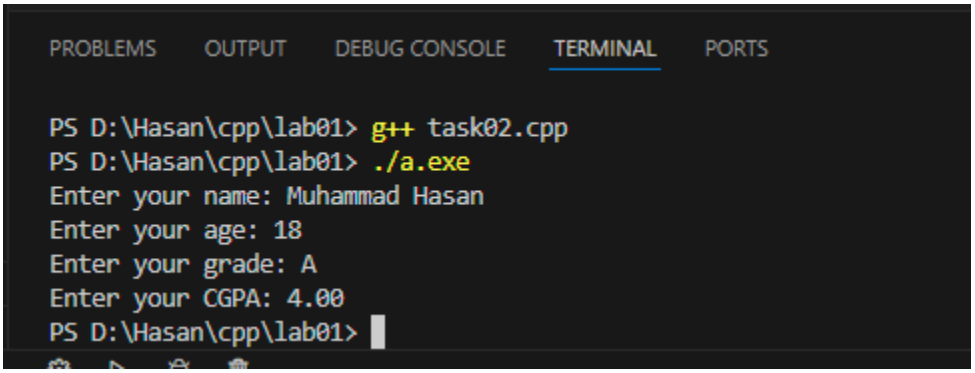
Flowchart:



Code:

```cpp
#include<iostream>
#include<string>
using namespace std;
int main(){
    string name;
    int age = 0;
    string grade;
    float cgpa = 0.00;
    cout << "Enter your name: ";
    getline(cin,name);
    cout << "Enter your age: ";
    cin >> age;
    cout << "Enter your grade: ";
    cin.ignore();
    getline(cin,grade);
    cout << "Enter your CGPA: ";
    cin >> cgpa;
}
```

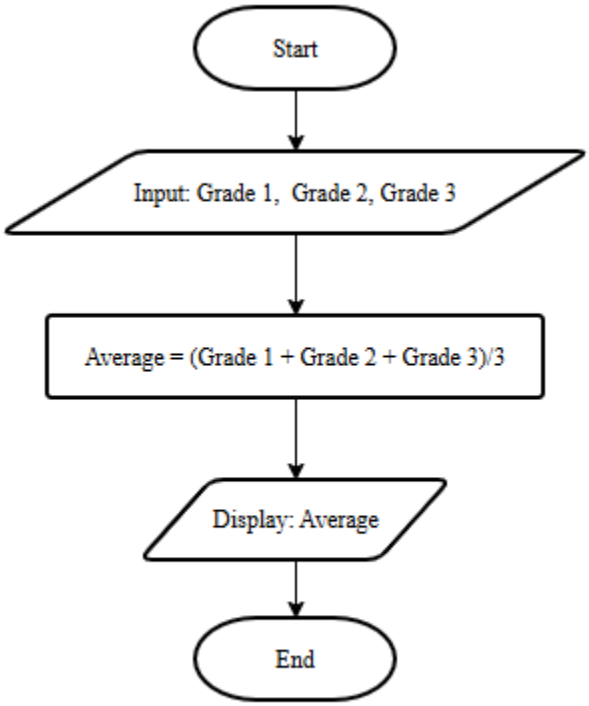
Output:


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
PS D:\Hasan\cpp\lab01> g++ task02.cpp
PS D:\Hasan\cpp\lab01> ./a.exe
Enter your name: Muhammad Hasan
Enter your age: 18
Enter your grade: A
Enter your CGPA: 4.00
PS D:\Hasan\cpp\lab01>

Task 03:

Draw a flowchart and Write a C++ program to read student's three grade, calculate the average of thegrade, and then display the average grade.

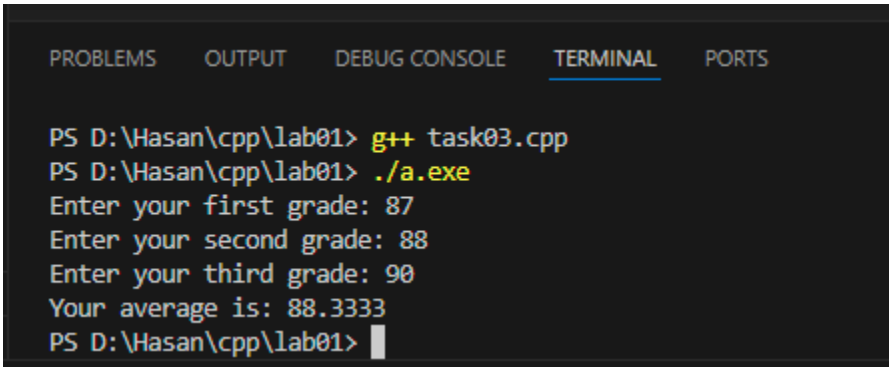
Flowchart:



Code:

```
#include<iostream>
using namespace std;
int main(){
    int g1 = 0, g2 = 0, g3 = 0; //g means Grade
    float avg = 0.00;
    cout << "Enter your first grade: ";
    cin >> g1;
    cout << "Enter your second grade: ";
    cin >> g2;
    cout << "Enter your third grade: ";
    cin >> g3;
    avg = (g1+g2+g3)/3.00; // calculating average
    cout << "Your average is: "<<avg;
}
```

Output:

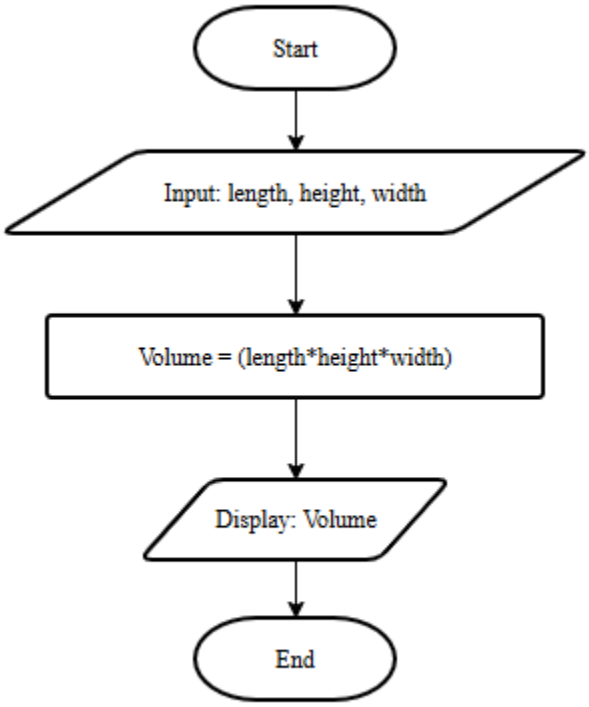

PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
PS D:\Hasan\cpp\lab01> g++ task03.cpp
PS D:\Hasan\cpp\lab01> ./a.exe
Enter your first grade: 87
Enter your second grade: 88
Enter your third grade: 90
Your average is: 88.3333
PS D:\Hasan\cpp\lab01>

Task 04:

Write program & draw a flowchart that reads the height, length, and width of the rectangular box,Calculates and displays the volume.

Note: Volume = lwh.

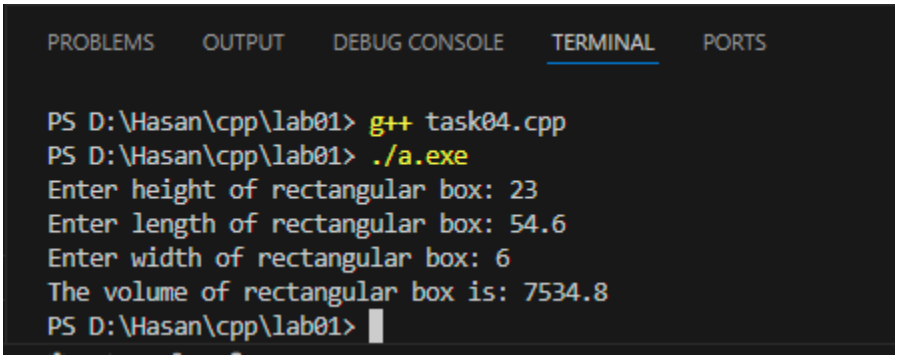
Flowchart:



Code:

```
#include<iostream>
using namespace std;
int main(){
    float length = 0.00, height = 0.00, width = 0.00, vol = 0.00;
    cout << "Enter height of rectangular box: ";
    cin >> height;
    cout << "Enter length of rectangular box: ";
    cin >> length;
    cout << "Enter width of rectangular box: ";
    cin >> width;
    vol = height*length*width;
    cout << "The volume of rectangular box is: "<<vol;
}
```

Output:


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
PS D:\Hasan\cpp\lab01> g++ task04.cpp
PS D:\Hasan\cpp\lab01> ./a.exe
Enter height of rectangular box: 23
Enter length of rectangular box: 54.6
Enter width of rectangular box: 6
The volume of rectangular box is: 7534.8
PS D:\Hasan\cpp\lab01>

Task 05:

Write a program to read the salary of an employee and prints particular designation of the concernperson for example Manager Salary = 200k, Supervisor = 150k and Technician = 80k.

Code:

```cpp
#include<iostream>
using namespace std;
int main(){
    int sal = 0;
    cout << "Enter the amount of your salary: ";
    cin >> sal;
    if(sal == 200){
        cout << "Your designation is Manager.";
    }
    else if(sal == 150){
        cout << "Your designation is Supervisor.";
    }
    else if(sal == 80){
        cout << "Your designation is Technician.";
    }
    else{
        cout << "Enter valid amount!";
    }
}
```

Output :