

## Rectangle.h

```
#ifndef RECTANGLE_H
#define RECTANGLE_H
class Rectangle
{
public:
    Rectangle();
    Rectangle(double w, double h);
    double getWidth() const;
    double getHeight() const;
    double changeWidth(double x);
    double changeHeight(double x);
    double getArea();
    double getPerimeter();
private:
    double width;
    double height;
};
#endif
```

## Rectangle.cpp

```
#include <iostream>
#include "Rectangle.h"
using namespace std;

Rectangle::Rectangle() { width = 1; height = 1; }
Rectangle::Rectangle(double w, double h) { width = w; height = h; }

double Rectangle::getWidth() const
{
    return width;
}

double Rectangle::getHeight() const
{
    return height;
}

double Rectangle::changeWidth(double x)
{
    return width + x;
}

double Rectangle::changeHeight(double x)
{
    return height + x;
}
```

```

double Rectangle::getArea()
{
    return width * height;
}

double Rectangle::getPerimeter()
{
    return 2 * (width + height);
}

```

### Main.cpp

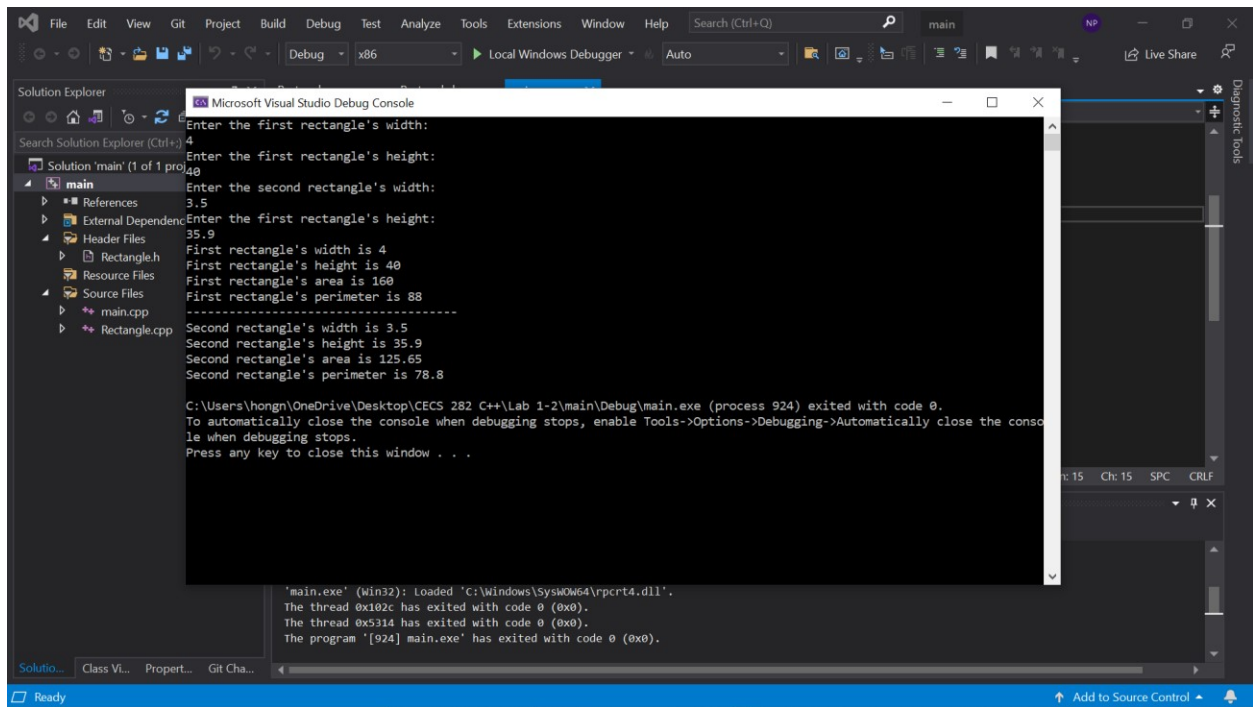
```

#include <iostream>
#include "Rectangle.h"
using namespace std;

int main()
{
    double w1, h1, w2, h2;
    cout << "Enter the first rectangle's width: " << endl;
    cin >> w1;
    cout << "Enter the first rectangle's height: " << endl;
    cin >> h1;
    cout << "Enter the second rectangle's width: " << endl;
    cin >> w2;
    cout << "Enter the first rectangle's height: " << endl;
    cin >> h2;
    Rectangle rec1(w1, h1);
    Rectangle rec2(w2, h2);

    cout << "First rectangle's width is " << rec1.getWidth() << endl;
    cout << "First rectangle's height is " << rec1.getHeight() << endl;
    cout << "First rectangle's area is " << rec1.getArea() << endl;
    cout << "First rectangle's perimeter is " << rec1.getPerimeter() << endl;
    cout << "-----\n";
    cout << "Second rectangle's width is " << rec2.getWidth() << endl;
    cout << "Second rectangle's height is " << rec2.getHeight() << endl;
    cout << "Second rectangle's area is " << rec2.getArea() << endl;
    cout << "Second rectangle's perimeter is " << rec2.getPerimeter() << endl;
    return 0;
}

```



Demonstrated at 11:07 am on Tuesday August 31<sup>st</sup> 2021