

**Lab Exercise 4****IT1050 – Object Oriented Concepts****Semester 2, 2021**

Objectives:

- **Learning to add header files in Visual Studio.Net environment.**

**Exercise :**

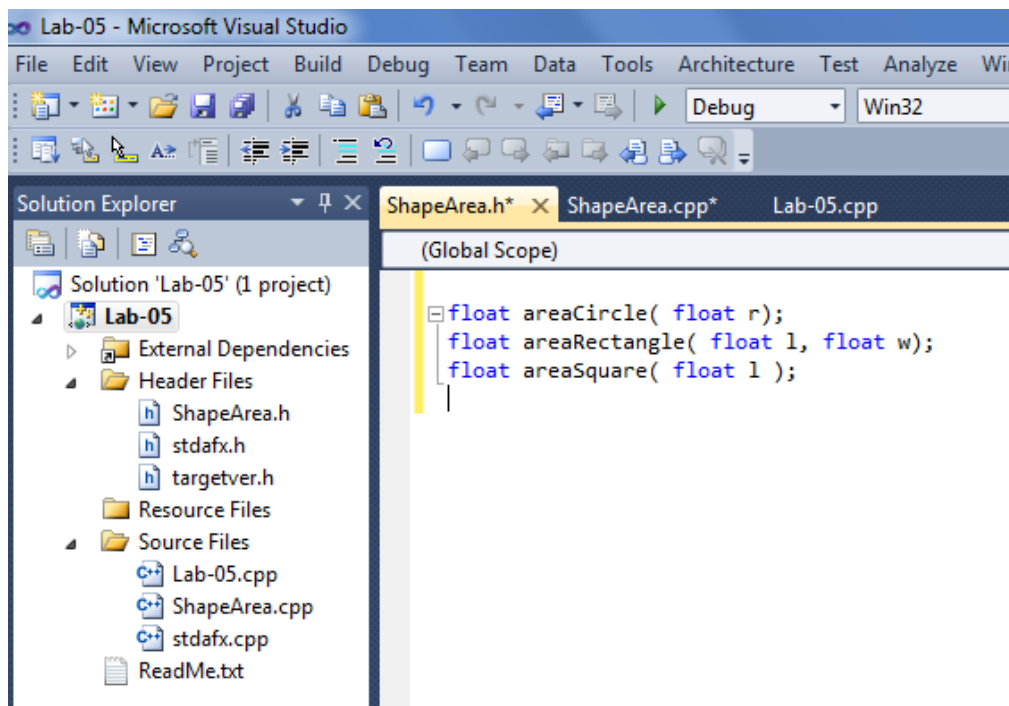
Consider the coding you have implemented in a single .cpp file last week ( week -04 )

We will see how we can add a header file and another source file to the project to separate the function implementation to several files.

Do the following tasks;

1. Create a new project in the Visual Studio.Net IDE. Name the project as “Lab-05”
2. Select Project -> Add New Item -> Header File ( .h). Name the file as “ShapeArea”.
3. Type the function prototypes in this file as shown below;

*If you are using another IDE, just ensure that the .h files are in the same folder as the .cpp files*



**Lab Exercise 4****IT1050 – Object Oriented Concepts****Semester 2, 2021**

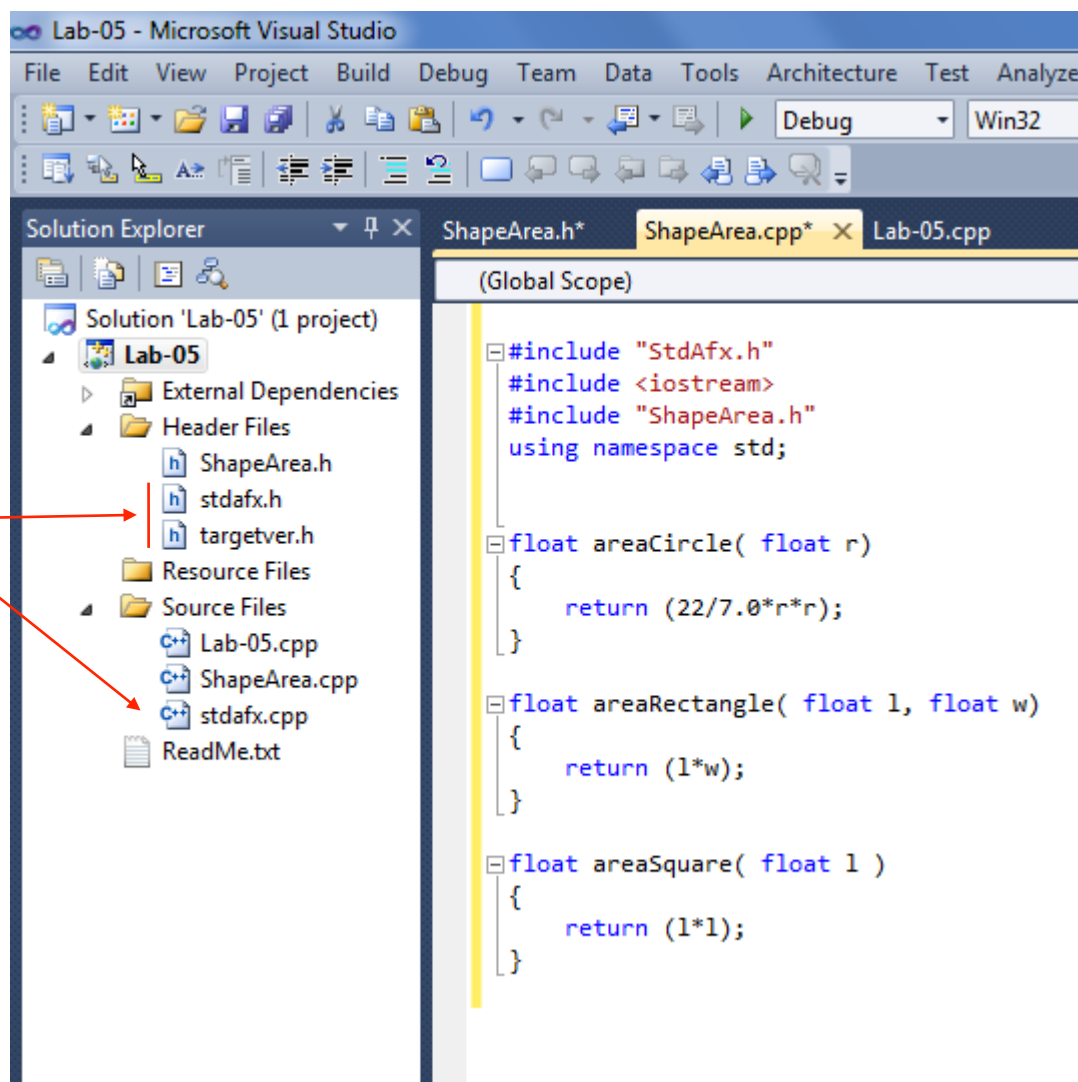
4. Now add another .cpp file. Select Project -> Add New Item -> C++ File (.cpp). Name the file as “ShapeArea”.
5. Implement the functions in the ShapeArea.cpp file as shown below.

Note that you have to add the following header files in the code.

```
#include "StdAfx.h"  
#include <iostream>  
#include "ShapeArea.h"
```

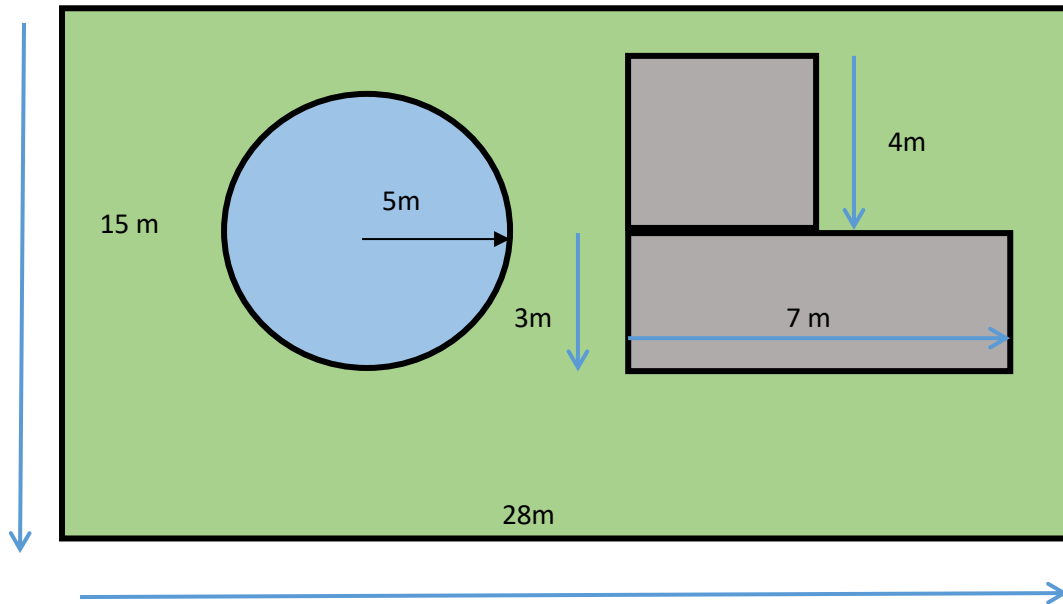
StdAfx.h is only need for Visual Studio  
You don't need this header file if you  
are using a different IDE

*These files  
are only  
needed in  
Visual  
Studio*



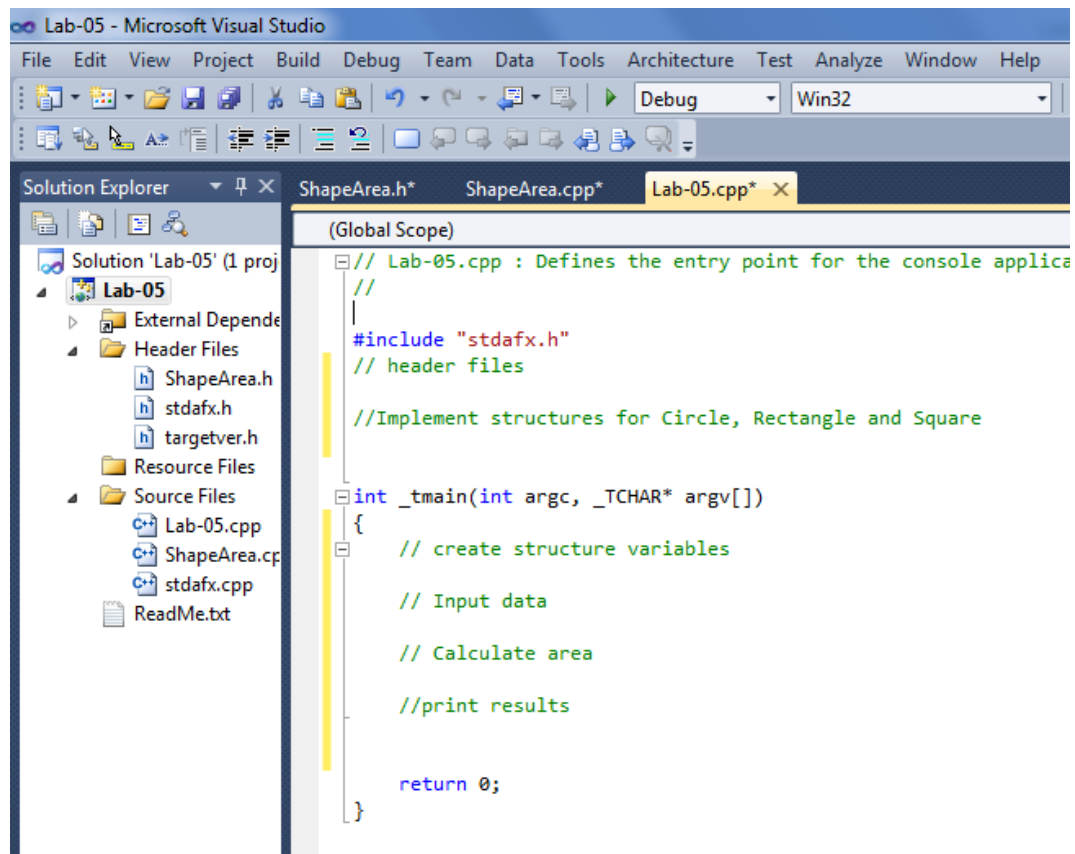
**Lab Exercise 4****IT1050 – Object Oriented Concepts****Semester 2, 2021**

6. Now write the main program ( in Lab-05.cpp file ) to use the above three functions to calculate the area of the green colour shape in the diagram below.



Note that you have to add the following header files to your main program

```
#include <iostream>  
#include "ShapeArea.h"
```

**Lab Exercise 4****IT1050 – Object Oriented Concepts****Semester 2, 2021****Home work**

You can add the function you have developed to find the perimeter of the rectangle in to the program and calculate the cost for fixing a fence around the Yard.