SDL Lab Using the SDL Manager

The goal for today's lab is to produce the following SDL picture:

Graphics -	×

You are going to be working in the SDLManagerV1.2 solution. There is currently one project in this solution named (SDLManager).

- 1. Add a **Visual C++|General|Empty** Project named SDLRectangle.
- 2. Link SDLRectangle to SDLManager and SDL2:
 - a. Right-click on the project SDLRectangle. Go to Properties|Configuration Properties|Linker|System|SubSystem and select Windows (/SUBSYSTEM:WINDOWS)



b. Go to **Properties|Configuration Properties|Debugging**. Set Environment to (PATH=C:\SDL2\lib\x86).

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c. Go to **Properties**|Configuration Properties|VC++ Directories then set:

- i. Include Directories:
 - \$(SolutionDir)\SDLManager
 - C:\SDL2\include
 - \$(SolutionDir)\SDLRectangle

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- ii. Library Directories:
 - \$(SolutionDir)\SDLManager\Debug
 - C:\SDL2\lib\x86
 - \$(SolutionDir)\SDLRectangle

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d. Go to Properties|Configuration Properties|Linker|Input. Set Additional

Dependencies to:

- SDL2.lib
- SDL2main.lib
- SDL2_gfx.lib
- SDL2_ttf.lib
- SDL2_Mixer.lib
- SDL2_image.lib
- Color.obj
- SDLManager.obj

SDLRectangle Property Pages		? ×	
Configuration: Active(Debug)	 Platform: Active(Win 	32) Configuration Manager	
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System		SDL2_image.lib	
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Manifest Tool		SDL2main.lib	
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Build Events		SDL2 image.lib	
Custom Build Step		Color.obj	
Code Analysis	Additional Dependencies	SDLManager.obj	
	Specifies additional items to add t		×

3. Set project dependencies. Right-click on Solution and select Properties. Go to **Common Properties** Project Dependencies. Select the project SDLRectangle from the drop-down box. Check the box marked SDLManager.

	Solution 'SDLRectangle' Property Pages						
	Configuration: N/A	Platform: N/A					
 Common Properties Startup Project 		Projects:					
		SDLRectangle					
	Project Dependencies						
Code Analysis Settings		Depends on:					
	Debug Source Files Configuration Properties	SDLManager					

- 4. Create a driver called SDLRectangleDriver.cpp in the SDLRectangle project Source Files. Copy the source code from SDLDriver.cpp in the SDLManager project into SDLRectangleDriver.cpp. Set SDLRectangle as the StartUp project. Build and run.
- 5. Add an SDLRectangle interface in SDLRectangle.h as follows:

```
// File name: Rectangle.h
// Author: Computer Science, Pacific University
// Date: 3/23/20
// Class: CS 250
          3/23/2018
// Assignment: SDLRectangle Lab
// Purpose: Declaration for a SDLRectangle class
#pragma once
#include "SDLManager.h"
#include "Color.h"
class SDLRectangle
ł
 public:
  SDLRectangle (int xPos = 50, int yPos = 50, int length = 5, int height = 5,
             const Color &rcColor = Color::BLUE);
  void draw (SDLManager &rcSDLManager);
 private:
  int mXPos;
  int mYPos;
  int mLength;
  int mHeight;
  Color mcColor;
};
```

- 6. Write the implementation for SDLRectangle.h in SDLRectangle.cpp
- Create and display a Rectangle on the screen as shown in the window at the top of this lab. The window is at location (100, 100) with a size of 320x320. The rectangle is at location (100, 100) with length 100, height 50, and color BLUE.