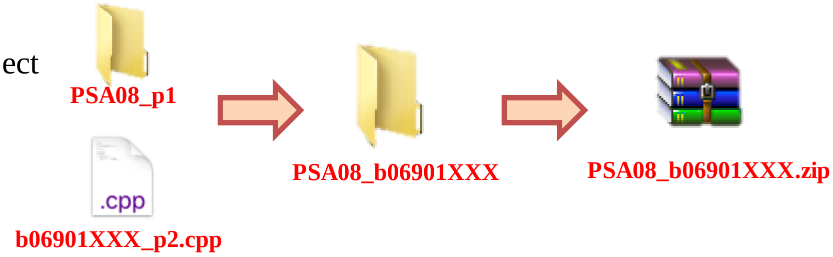
Programming Session Assignment 08

2017/11/26 by TA 陳泓弦

REQUIRED FILES

Please **compress a folder** named **PSA08_b06901XXX** (student ID) that contains the following files:

- ✓ b06901XXX _p1 project
- ✓ b06901XXX _p2.cpp



Do not submit executable files (.exe). Files with names in wrong format will not be graded. In your .cpp files, we suggest you write comments in details as much as you can. It will be good for TAs to read your code and for your future reference and maintenance. (Due date: 11/29 06:00)

PROBLEM DESCRIPTION

1. **[Required file: b06901XXX _p1 project]**

   Let's play a simple gambling game about rolling the dice. The game requires two standard dice, each has 6 sides from 1 to 6 dots. Each side will appear randomly. The rules of the game are as follows: The player rolls two dice repeatedly. In first turn, if the points of two dice equal 7 or 11, the player wins. If the points equal 2 or 3 or 12, the player loses. If the points are other cases, record the points and continues to roll two dice . The player wins the game until the points in some turn equal to the points of first turn. However, in every single turn, if the player dices the point equal to 7 or the cummulative sum of points of each turn larger than 50, the player loses.

   For example:

   You roll 13 points in first turn, so you should continue rolling the dice and you roll 13 points in second turn. You need to first check whether the value of the points equal to 7 or not. Obviously, 13 is not eqaul to 7, then you need to check the value of cummulative sum. The value equals to 26, which is less than 50 and the points of second turn is equal to the first turn. Thus, you win!

Note there are 5 files in your project

- ✓ main.cpp
- ✓ initRoll.cpp
- ✓ initRoll.hpp ⇒
- ✓ reRoll.cpp
- ✓ reRoll.hpp

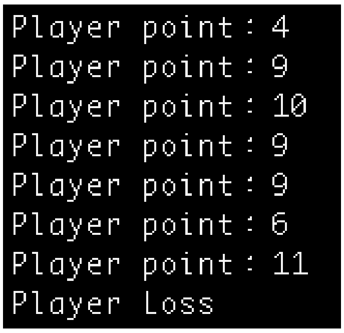
PSA08_p1

.hpp files are used to declare funtion *initialRoll()* and *reRoll()*
initRoll.cpp implements the function *initialRoll()*, which return the result of first turn
reRoll.cpp implements the function *reRoll()*, which return the result of single turn except first turn

You should implement the part of **TODO** in each file to make the project work.

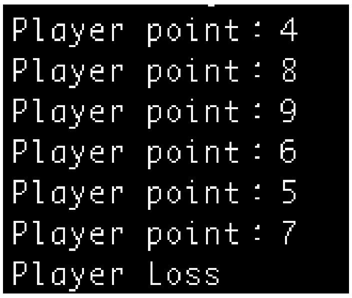
Hint: Use **extern** to declare variables accessible for different files

Format:
Example 1: Player loses because the sum of points is 58 (> 50)



```
Player point : 4
Player point : 9
Player point : 10
Player point : 9
Player point : 9
Player point : 6
Player point : 11
Player Loss
```

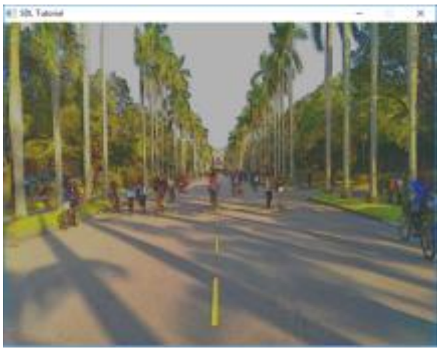
Example 2: Player loses because the point of 7 appeared



```
Player point : 4
Player point : 8
Player point : 9
Player point : 6
Player point : 5
Player point : 7
Player Loss
```

2. [Required file: b06901XXX _p2.cpp]

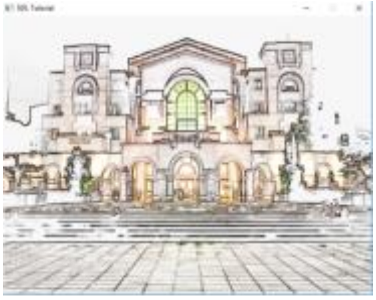
In this problem, please use the SDL library to do a simple game of NTU.
You should first install SDL library following the steps in professor's lecture.
In this game, the screen size is 640 x 480 and we are at "Avenue" initially.
Avenue:



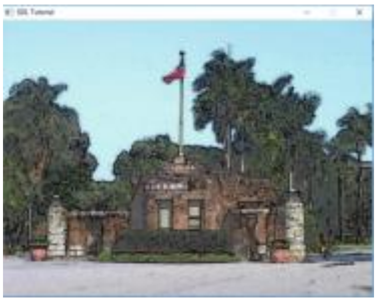
If we enter ↑ on keyboard, we will arrive the "Library".
If we enter ← on keyboard, we will arrive the "Gym".
If we enter → on keyboard, we will arrive the "Shinemood".
If we enter ↓ on keyboard, we will arrive the "Gate".
If we enter other button except "q" on keyboard, we will back to "Avenue.
If we enter button "q" on keyboard, end this program.

Note the path of image is "image/xxx.bmp" (xxx is name of image)
Note you only need to submit 1 file in this problem. Please don't submit images.
The image size is 640 x 480, so you don't need to deal the problem of scaling.

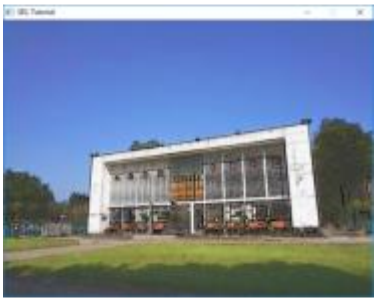
Library :



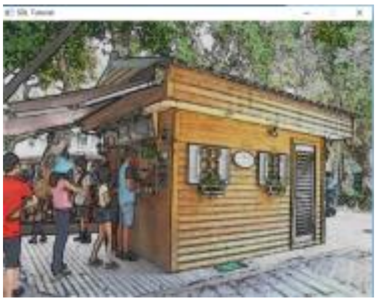
Gate:



Gym:



Shinemood:


SDL Tutorial