

Lab 2

Due 13:00, Monday, July 26, 2021

No Late Submission

注意事項：

1. Lab 的時間為授課結束後至下午一點。
2. Lab 的分數分配：出席 20%，三題練習 80%，Bonus 50%。
3. 請儘量於 Lab 時段完成練習，完成後請找助教檢查，經助教檢查後沒問題者請用你的學號與 Lab number 做一個檔案夾 (e.g., N96091350-Lab1), 將你的全部檔案 放入檔案夾，壓縮後上傳至課程網站(e.g.,N96091350Lab3.zip)。
4. 上傳後即可離開。
5. 未完成者可於隔日 11:55 am 前上傳至 Moodle，逾期不受理。

Exercise 1 (25%): Write a program to (1) show your game window which is titled as “My first game” and (2) plot the background on the window. (3) The window must be closed properly when user clicks the corner button. Below is the sample run:



Hint:

1. Import `pygame` module at the beginning of your program.
2. Define your game window in the constructor using `pygame.display.set_mode()`.
3. Use `.blit()` method to draw your background on the window.
4. Write an judgment (using `pygame.QUIT`) to break the while loop when user click the corner button

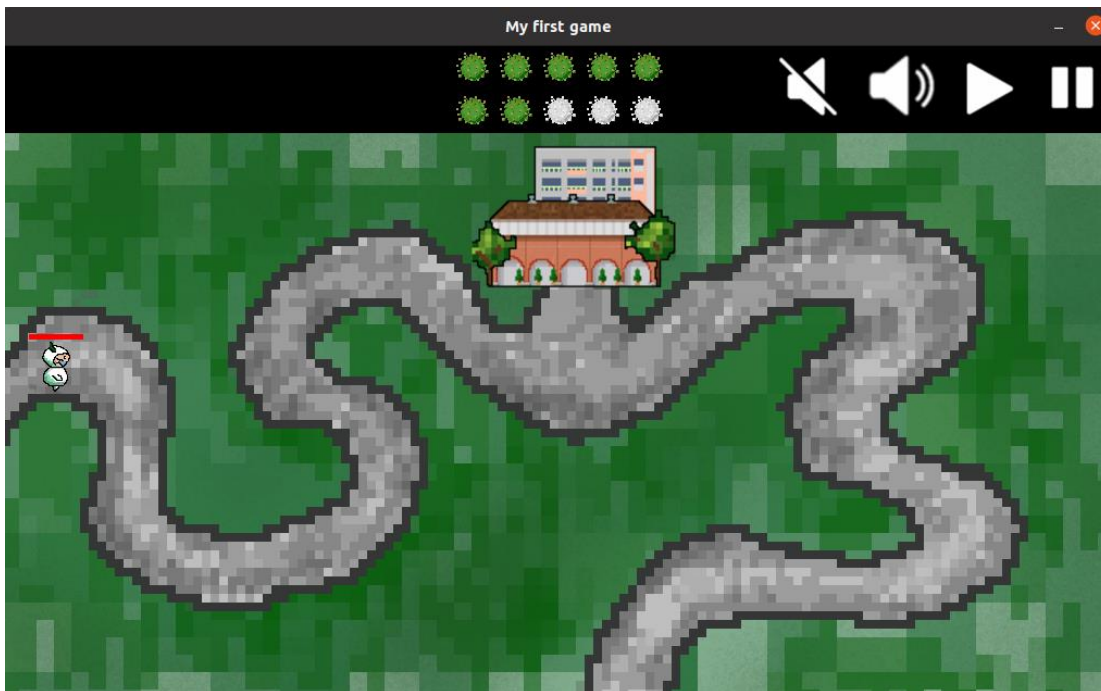
Exercise 2 (20%): Continued from the previous question, write a program to show the enemy and its health bar. Below are the sample run:



Hint:

1. Use `pygame.draw.rect()` to draw the health bar.

Exercise 3 (35%): Continued from the previous question, write a program to show the game menu which involves (1) the buttons (start button, pause button, sound button, and the muse button), and the HP (max HP is 10 and current HP is 7). Below is the sample run:



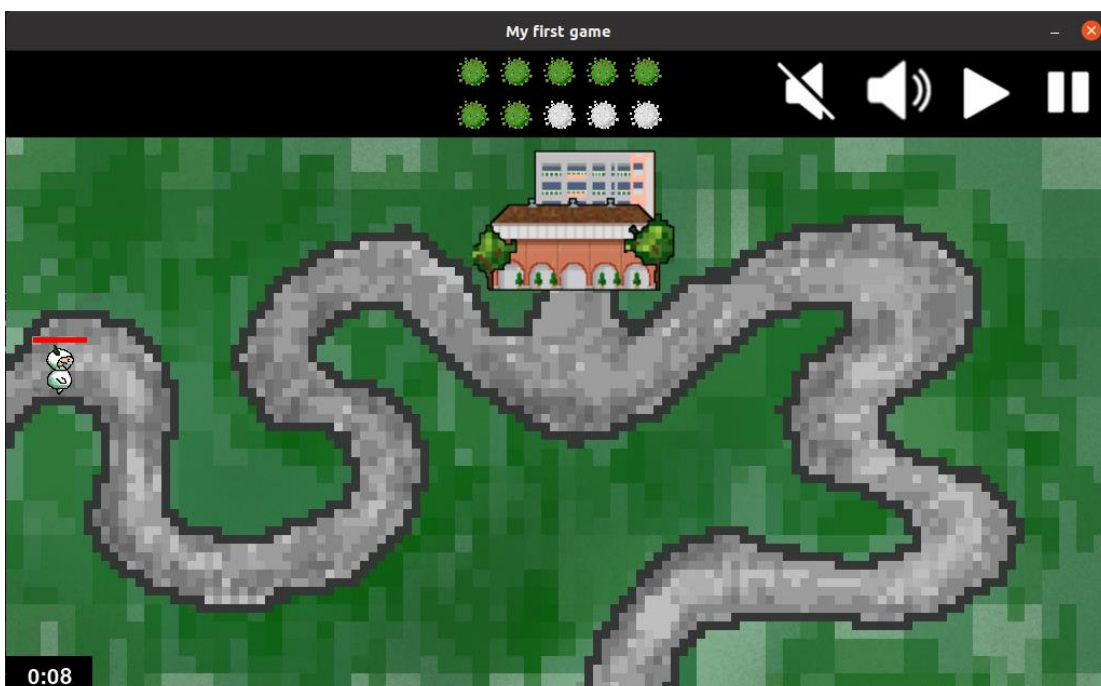
Hint:

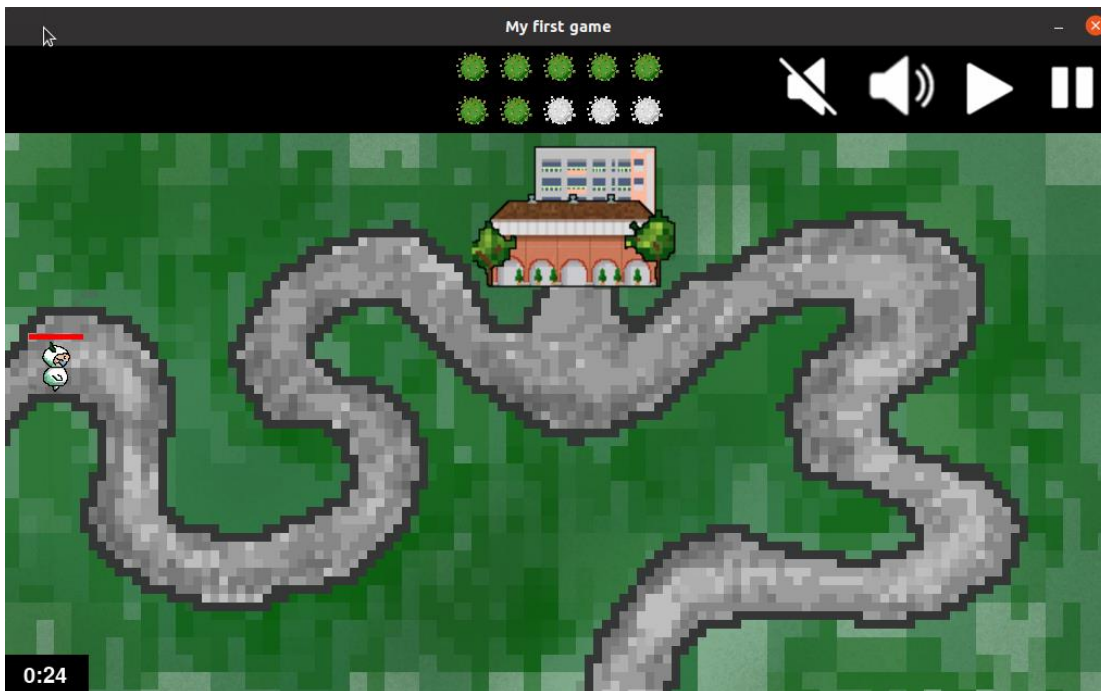
1. Use `pygame.draw.rect()` to draw the menu.
2. Use `.blit()` method to draw the buttons and HP.

Bonus (50%):

Continued from the previous question, write a program to show the game time at the bottom left.

Below is the sample run:





Hint:

1. Import time module at the beginning of your program.
2. Use `.render()` method to create a text surface.
(ex: `text_surface = self.font.render(...)`), and draw the text surface on the window using `.blit()` method.