

## Lab 4

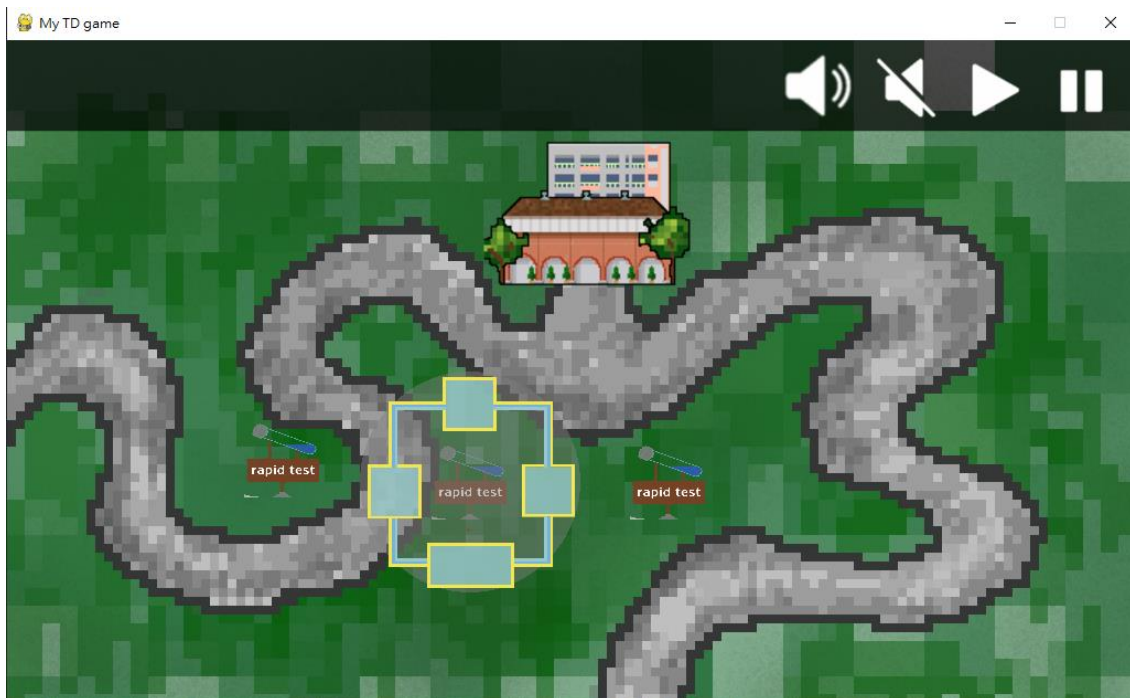
Due 12:00, Friday, August 2, 2021

### No Late Submission

注意事項：

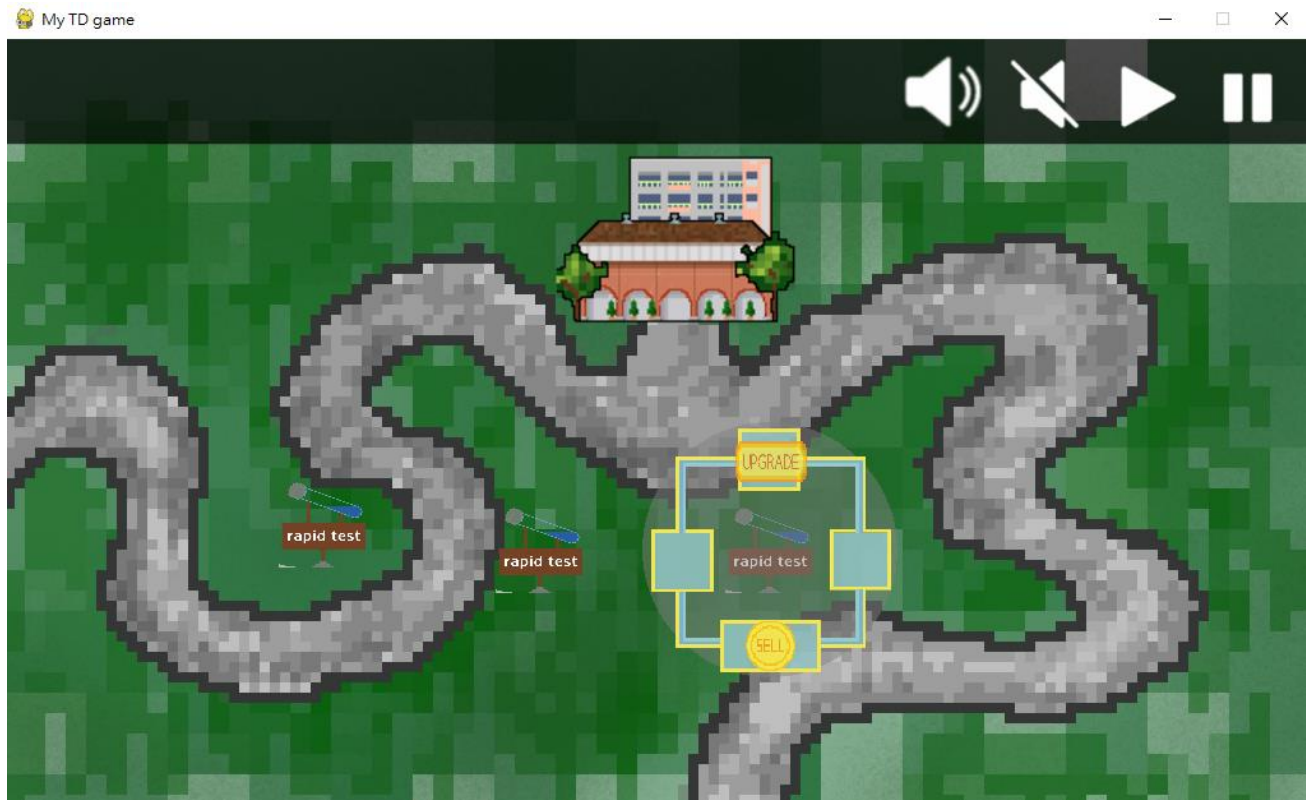
1. Lab 的時間為授課結束後至下午一點。
2. Lab 的分數分配：出席 20%，兩題練習 80%，Bonus 50%。
3. 請儘量於 Lab 時段完成練習，完成後請找助教檢查，經助教檢查後沒問題者請用你的學號與 Lab number 做一個檔案夾 (e.g., N96091350-Lab1)，將你的全部檔案 放入檔案夾，壓縮後上傳至課程網站(e.g.,N96091350Lab3.zip)。
4. 上傳後即可離開。
5. 未完成者可於隔日 11:55 am 前上傳至 Moodle，逾期不受理。

**Exercise 1 (40%):** Open the file “menu.py” and complete the class `UpgradeMenu()` to show the upgrade menu of the tower. Below is the sample run:



**Exercise 2 (40%):** Continued from the previous question, complete the entire class `Button()` to show the “upgrade” button and “sell” button on the menu. (Notice that after you finish the part of class `Button()`, add the button objects into `self.__buttons`). Below is the sample run:

Below is the sample run:



Hint:

1. Using `rect.collidepoint(x, y)` would be easier to check whether the mouse position is on the button image.

**Bonus (50%):**

Continued from the previous question, complete the `upgrade()` and the `sell()` method in class `TowerGroup()`.

