

## **Name of the game: The Warrior Without Weapon**

It is an unfinished video game I made with another team member, Mika, during the process of CIS program. It runs on Pygame, which is a set of Python modules designed for writing video game.

### **Personal Contribution:**

Programming

User interface & numerical value adjustment

Mechanic design

### **Check out the code:**

[https://github.com/weibinxiao/The\\_Warrior\\_Without\\_Weapon](https://github.com/weibinxiao/The_Warrior_Without_Weapon)

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## **INTRODUCTION:**

- Player press WASD or ↑ ↓ ← → keys to move in 8 directions.
- Contacting the monsters for one time will cause the player to lose 1/3 of health (the monster get knockback when the player touches them).
- If the player contacts the potion, the player will gain 1/3 of health
- Stamina system: player's movement cost stamina. The stamina starts to recover instantly after the player stop moving. If the player depletes the stamina, player cannot move until their stamina is fully recovered.

The stamina system aims to limit the mobility of player and make player to plan their movement. If player hold the moving key, the stamina is only enough for them to travel limited amount of distance. If they depleted their stamina, the period of movement disabling could make them in danger. But since the stamina starts to recover when they release the moving key instantly, the player can prevent it from run out while maintaining movement by repeatedly pressing and releasing the moving keys. The player can control their speed by controlling the frequency and duration of pressing and releasing keys. Their speed cannot surpass the situation of holding the moving keys without releasing them, and the faster the player wants to be, the more stamina the player will use, the closer the player is to run out of stamina.

Initially, we plan to make the player able to attack the monsters. However, my work of

implementing and designing the stamina system took longer time than I expected. We only had a little time left to implement the attacking system. I realized that the stamina system has enough depth to build a complete game around it, and the other team member agreed on the decision that player will not be able to attack.

```
run=True
while True:
    framerate.tick(60)
    ticks = pygame.time.get_ticks()
    pygame.time.get_ticks()

    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            sys.exit()

    key = pygame.key.get_pressed()
    if key[pygame.K_ESCAPE]:sys.exit()

    # player moving
    elif stamina_punish == True:
        player_stamina += 0.6
        if player_stamina>=150:
            stamina_punish=False

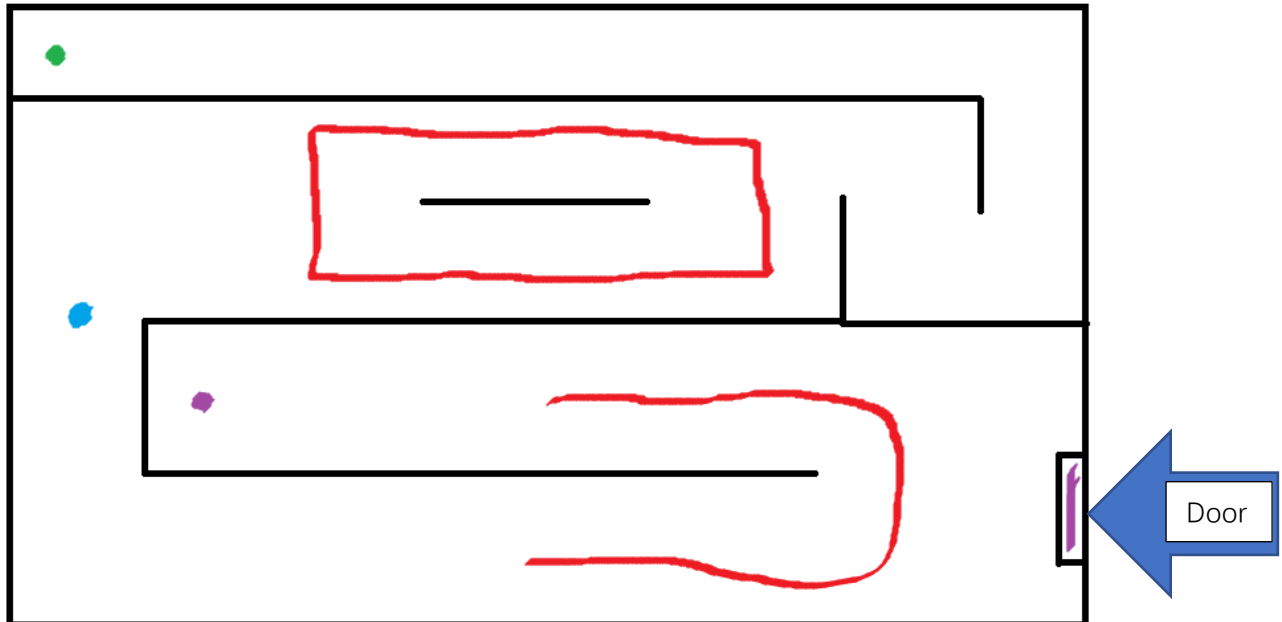
    elif player_stamina <=0 :
        player_moving = False
        stamina_punish = True

    elif key[K_w] or key[K_UP]:
        player.direction = 0
        player_moving = True
        player_stamina-=2
    elif key[K_d] or key[K_RIGHT]:
        player.direction = 2
        player_moving = True
        player_stamina-=2
    elif key[K_s] or key[K_DOWN]:
        player.direction = 4
        player_moving = True
        player_stamina-=2
    elif key[K_a] or key[K_LEFT]:
        player.direction = 6
        player_moving = True
        player_stamina-=2

    else:
        player_moving = False
        if player_stamina < 150:
            player_stamina += 0.6
```

*This left picture is a screenshot of a part of the code. Pygame executes the code one time in each frame. The mindset of programming I learned in the past needs to be revised here. It took me plenty of time to learn how it works and eventually implement the stamina mechanism.*

I finished the design draft of the first level, but we did not have enough time to make the level.



**Black lines: Walls**

**Green dot: Player spawn point**

**Blue dot: potion**

**Purple dot: Key**

**Red lines: Moving routes of monsters**

**(Monsters move in circulated pattern)**

#### **Level Explain:**

The player enters the first level, which is a maze, and the player must exit the maze by door. The player first encounters a straight road with nothing on it, which is used for the player to acquaint the movement and stamina system. Then the player meets the monster, which circles around a length of wall. The distance of traversing the monster's patrol is too long; if the player holds the moving key, they will run out their stamina and get killed by the contact with moving monster. The player needs to use the button pressing skill I mentioned before to traverse successfully. After, they can pick up the potion if they lose health by touching the

monster. Then, the player needs to pick up the key to open the locked door, which is guarded by a patrolling monster. It requires player's timing and moving skills to bypass the monster and get the key to open the exit door.

## **INSTALL INSTRUCTION**

**System requirement: Windows 10 or Windows 11**

## Step 1:

Download the installer on <https://www.python.org> and install Python 3.10.8



## Step 2:

- 1) Open the CMD terminal
- 2) Type in: `curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py` and press ENTER on your keyboard
- 3) Then Type in: `python get-pip.py` and press ENTER on your keyboard
- 4) Type in: `pip install pygame` and press ENTER on your keyboard

```
C:\Users\suraj>curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 2617k  100 2617k    0     0 5523k      0  --:--:-- --:--:-- --:--:-- 5545k

C:\Users\suraj>python get-pip.py
Collecting pip
  Downloading pip-22.1.2-py3-none-any.whl (2.1 MB)
    ----- 2.1/2.1 MB 4.3 MB/s eta 0:00:00
Collecting wheel
  Using cached wheel-0.37.1-py2.py3-none-any.whl (35 kB)
Installing collected packages: wheel, pip
  Attempting uninstall: pip
    Found existing installation: pip 22.0.4
    Uninstalling pip-22.0.4:
      Successfully uninstalled pip-22.0.4
Successfully installed pip-22.1.2 wheel-0.37.1

C:\Users\suraj>
```

### Step 3:

Download the installer on <https://code.visualstudio.com> and install Visual Studio Code. While you are running the installer, tick the box indicated on the image.

The image shows the Visual Studio Code website and its installer setup window. The website header includes the Visual Studio Code logo, navigation links (Docs, Updates, Blog, API, Extensions, FAQ, Learn), a search bar, and a 'Download' button. A banner for 'Version 1.72' is visible. The main content area features the text 'Code editing. Redefined.' and 'Free. Built on open source. Runs everywhere.' A red circle highlights the 'Download for Windows' button, which is labeled 'Stable Build'. Below this, there is a link to 'Web, Insiders edition, or other platforms' and a note about agreeing to the license and privacy statement.

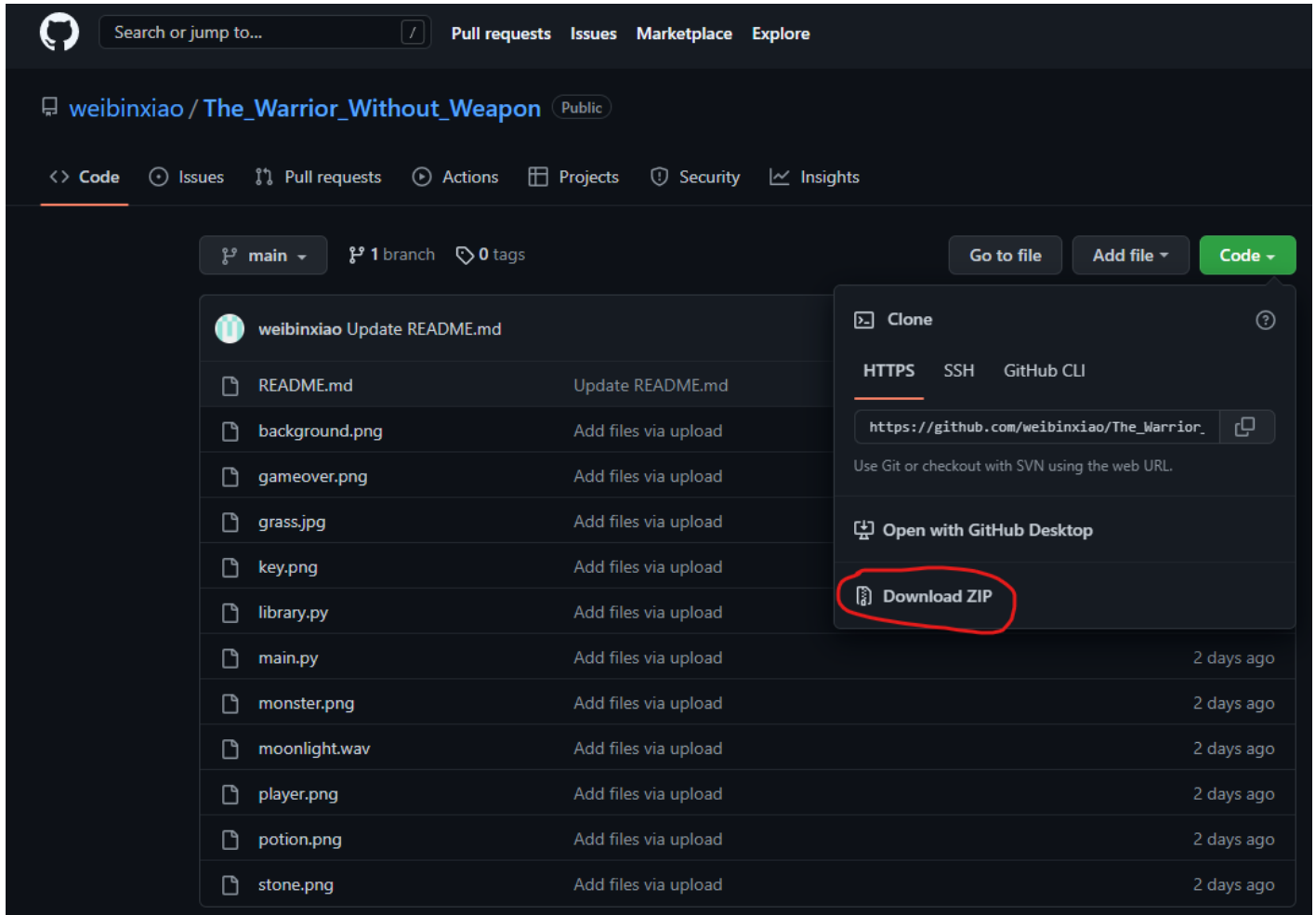
The installer window, titled 'Setup - Microsoft Visual Studio Code (User)', is shown in the foreground. It has a blue border and a blue header bar with the Visual Studio Code logo. The window contains the following text and options:

- Select Additional Tasks**
- Which additional tasks should be performed?
- Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.
- Additional icons:**
  - ☐ Create a desktop icon
- Other:**
  - ☐ Add "Open with Code" action to Windows Explorer file context menu
  - ☐ Add "Open with Code" action to Windows Explorer directory context menu
  - ☒ Register Code as an editor for supported file types
  - ☒ Add to PATH (requires shell restart)

At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

## Step 4:

Open [https://github.com/weibinxiao/The\\_Warrior\\_Without\\_Weapon](https://github.com/weibinxiao/The_Warrior_Without_Weapon) , click **Code** and click **Download ZIP**. Extract the zip file when download is complete.

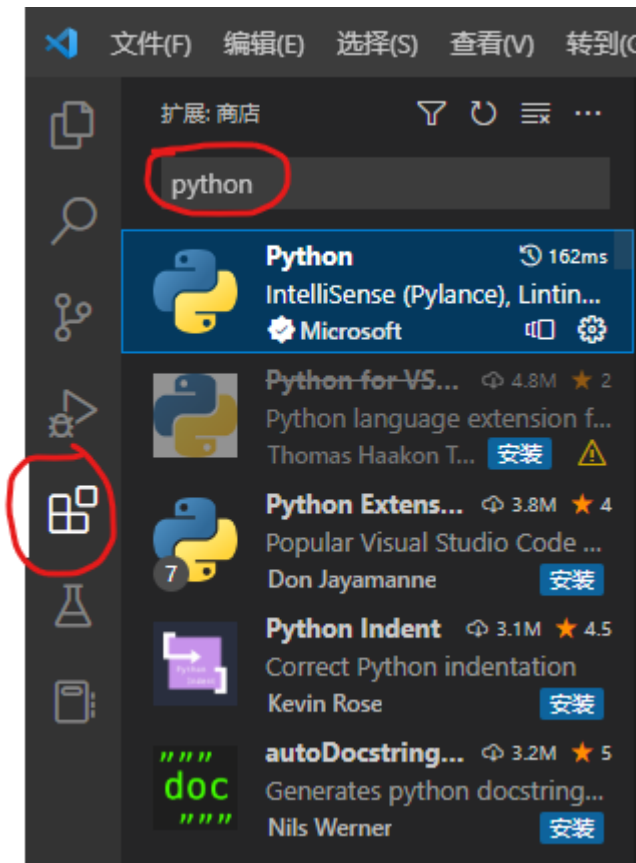


The screenshot shows the GitHub repository page for 'weibinxiao / The\_Warrior\_Without\_Weapon'. The repository is public and has 1 branch and 0 tags. The 'Code' button is highlighted, and the 'Download ZIP' option in the dropdown menu is circled in red.

File Name	Action	Time
README.md	Update README.md	
background.png	Add files via upload	
gameover.png	Add files via upload	
grass.jpg	Add files via upload	
key.png	Add files via upload	
library.py	Add files via upload	
main.py	Add files via upload	2 days ago
monster.png	Add files via upload	2 days ago
moonlight.wav	Add files via upload	2 days ago
player.png	Add files via upload	2 days ago
potion.png	Add files via upload	2 days ago
stone.png	Add files via upload	2 days ago

## Step 5:

- 1) Right click the extracted folder `The_Warrior_Without_Weapon_main`, click `Open with VS Code`.
- 2) Click the indicated “Extension” button when you open Visual Studio Code, type `python` in the searching box,
- 3) Install the python extension





## Step 6:

- 1) Click the “Explorer” button indicated in image below
- 2) Click `main.py`
- 3) Click “run” button indicated in image below.

