

Brief description

This project is made using pygame. The genre of this game is beat em up, with w,a,s,d controls, a jump key, combos and AI enemies. The style is centered around the video series “MADNESS combat” while the artstyle of the game is centered around another beat em up game called “River city girls”. The program uses multiple classes, movement options, gravity, enemy AI and spawning, Spritesheet filtering and a Gallery where when you defeat enemies you get their entry of them where you can read about their stats and stuff

Inspiration:

Again, This game was heavily inspired by the game “River city girls”. Odd name but the gameplay itself was really fun for me. The characters are also based on MADNESS: Project nexus specifically from the faction N51 and MERC. I really liked both of these games and wanted to make a sort of “Collab fan game” and I thought this was the perfect opportunity to do so

Similarities:



River city girls 2 gameplay:



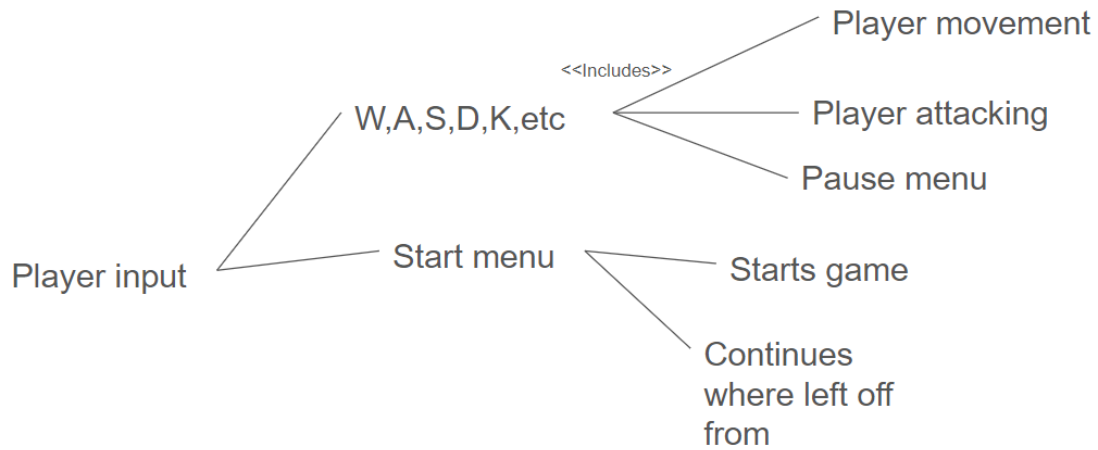
My game concept art



N51 Commando in MADNESS:Project nexus

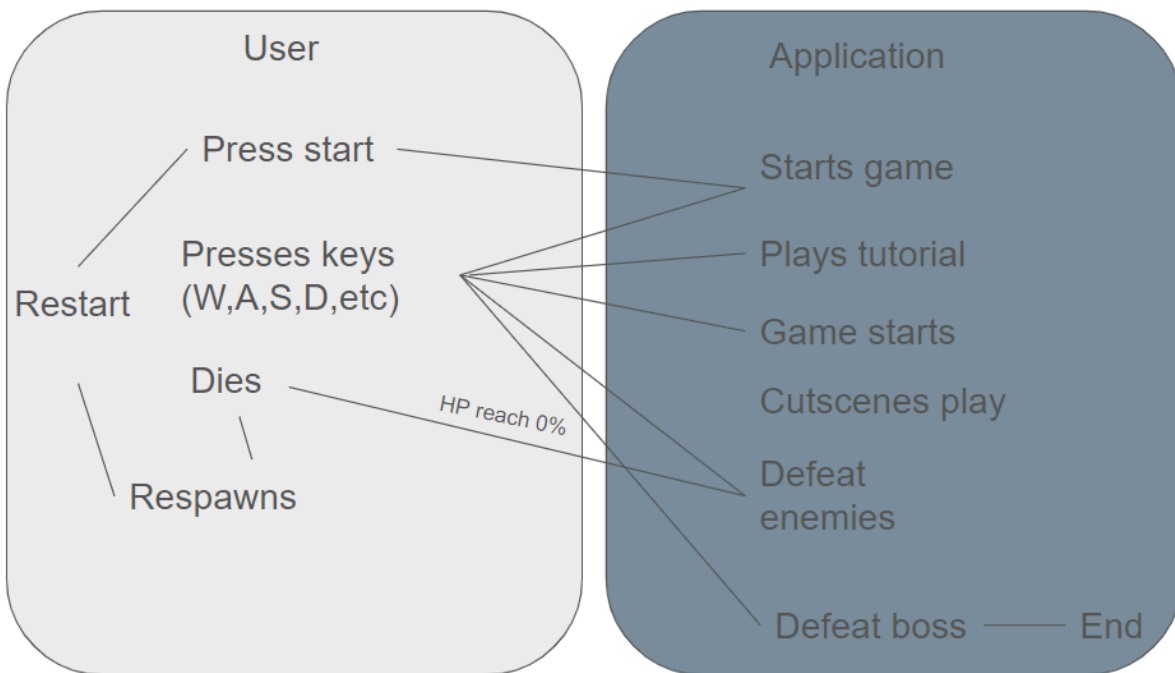
Use case diagram

UCD: Any other beat em up game



Activity diagram

AD: General gameplay



Class diagram

As this is very very incomplete even with the extra time given, there are only 2 classes

Spritesheet class - this class is used to cycle through spritesheets.



Lets use this sprite sheet for example, the unique thing here is instead of having multiple images saved in their own individual files, we save it all in 1 sprite sheet. We cycle through them using a list and an action variable. Lets say the List is [4,4,6,1], [Idle,Walk,Attack, hurt] in that order. For each key press lets say "D" for right. The Action variable is set to 1, in this list, 1 is the walk cycle so the walk cycle plays. How will it work for the left? We use the pygame.sprite.flip function.

Player class- This class contains code for player movement. So far I only put it in a red box for testing. But it uses the standard W,A,S,D keys. The movement speed is predetermined with a variable. You can change it as much as you want whether you want to make it as slow as a snail or faster than any spacecraft known to mankind

Modules

Modules are necessary for the game and other functions to run

Pygame-The start to all pygame made games. It is necessary as it allows code such as pygame.display or the blit function to allow images and the screen to be displayed

Mixer- Mixer is necessary to play music in games, or what was supposed to be in the game.

Py_vid_player- Used for playing videos in the game

Essential algorithms

Video player:

```
Py_Vid_Player.py >...
1 import pygame
2 import os
3 from ffpyplayer.player import MediaPlayer
4 from ffpyplayer.tools import set_loglevel
5 from pymediainfo import MediaInfo
6 from errno import ENOENT
7
8
9 class Video:
10     def __init__(self, path):
11         if not os.path.exists(path):
12             raise FileNotFoundError(ENOENT, os.strerror(ENOENT), path)
13         set_loglevel("quiet")
```

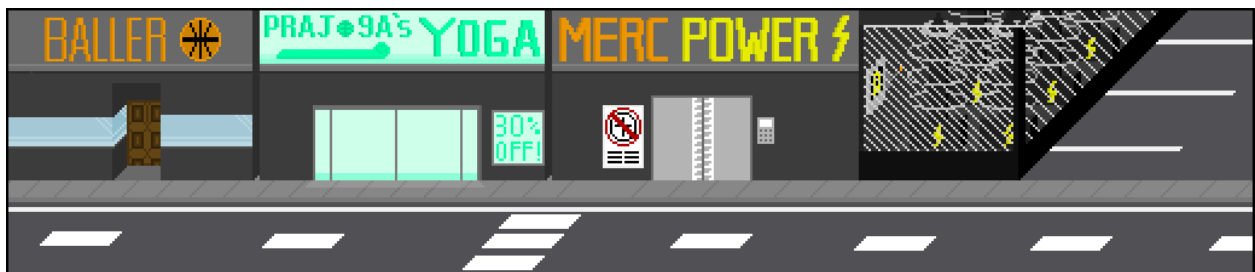
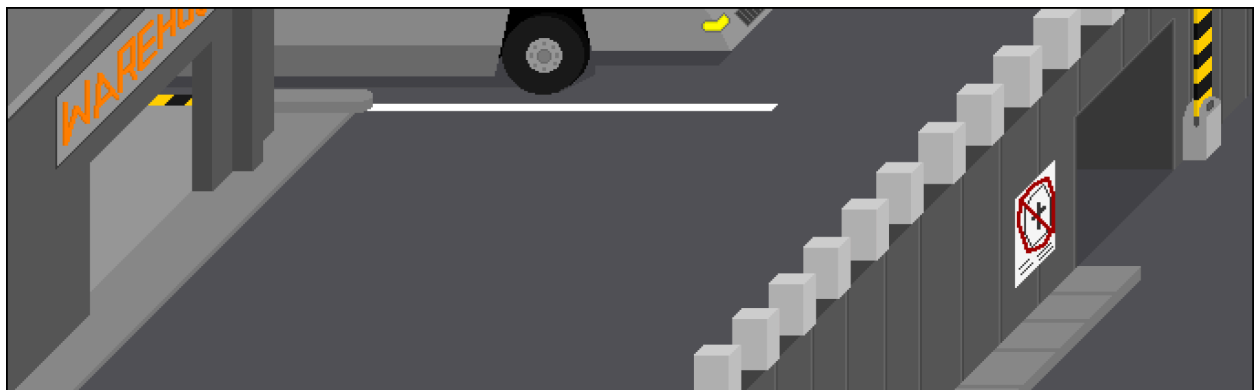
This massive line of code was used to play the video for the start of the game. It was copied from the github <https://github.com/anrayliu/pyvidplayer>

Screenshots

Title screen



Some of the levels supposed to be put in the game





Spritesheets of enemies and players



PS: These were all drawn by me so no plagiarism pls :)

Lessons learnt

I've learnt a lot about pygame with its upsides and downsides, I've also learnt that I should really shorten my project length expectations even though I have a well thought plan on how to finish it, outside difficulties like competitions, holidays forced by parents or general burnout have made things much more harder than supposed to be. From the start I told myself "If I have fun doing it then it'll be a breeze" I had fun, but it was not close to a breeze, more of an avalanche for stress and caffeine.

But it was a lot of fun drawing all these sprites and learning these cool new tricks from pygame. I guess I should really underestimate my coding capabilities as this is just the first year. While I am definitely getting a low score, I learnt my lesson to keep things manageable to a certain limit.

PS: There's another file that has all the plans of the characters personalities, voicelines, cutscene ideas and other stuff