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THE BATTLE OF PATHOGENS

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Project Description:

Games make exploration even more enjoyable. Practicing falling back behind the seat of consciousness can be challenging as the mind works to hijack raw awareness. During the last year, covid 19 affected the lives of millions of people. On one side we have to recover from this massive setback and beat the frustration but also create awareness and educate people and especially children about the measures to control it.

Competitive Analysis:

Inspired by Fruit Ninja and a recent game that is being developed in China with the same name(to be out next year), I was interested to make it as my Term project and hopefully release it so people can beat the frustration by killing these viruses. The game must cut various diseases — including CORONAVIRUS — before infecting a character. As the level progresses, diseases become more aggressive and twisted — just as diseases do in real life.

Structural Plan

Using Classes , I would be defining the shapes of the various pathogens using polygonal shapes that would draw out on the canvas for a short amount of time. As the user cuts it, it will add to the score. The complexity of working with polygons makes the design problem interesting and most challenging. The main class will hold all the main functions and various files will be linked and imported to the main file.Eg. Viruses in different files and slicing and other features in different files. Using clarity in code and helper functions for drawing and slicing , I would make a cohesive experience.

Algorithmic Plan

The most complex part of the project is to slice the viruses (polygonal shapes) into smaller and smaller pieces. Working with the right slicing is as important as the other parts of the game. My goal is to create the two basic parts of my project, drawing of viruses and slicing of viruses with the best experience. I would also like to try to slice sliced pieces, meaning double or triple slices.

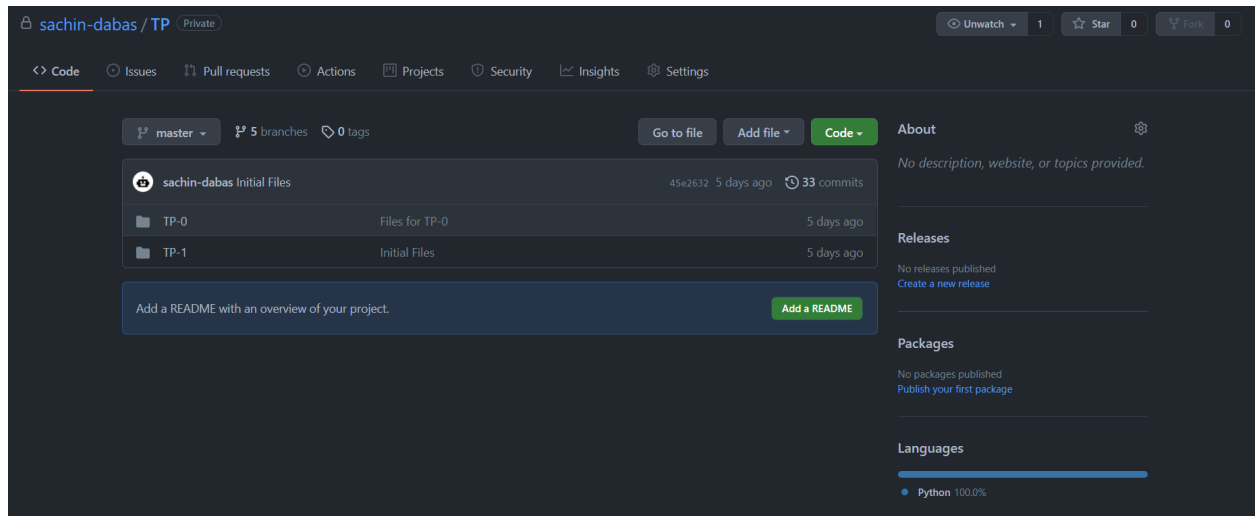
Time Plan as discussed with Mentor:

- *Initial drawing of circles to explore and structure code*
- *Physics for thrown fruit/slicing (Polygons) with correct time interval TP1*
- *Core gameplay (being able to swipe and cut the fruit in half, bombs, time countdown, combo ability) TP2*

- *non-naive/not-random system that tries to throw bombs up close to the fruit but not so that it's impossible to cut it (it can be very very simple!!!) Need to discuss with mentor before committing*
- *polygon-point collisions TP2*
- *All graphics and sound and features TP3*

Version Control Plan:

The backup is done on github on my private account.



Module List:

I do not intend to use any modules till TP2 as discussed with my mentor.

Complexity:

Working with Polygons

Animations

Special Features (Special Viruses)

Reference to Project:

<https://www.youtube.com/watch?v=tuxxHtWQ1Zo>

GAME OF PATHGENS

SPLASHSCREEN
WITH MODES

SCORE
LIFE

POLYGONAL
SHAPES

SCORE
LIFE

SLICING

SCORE
LIFE

SCORE
LIFE

DRAW
MATHS
VACCINE &
SPECIAL FEATURES

MULTIPLE OBJECTS

Double/Triple
multiple slicing
of same object
KILL IT!