

# **MICROBIAL MAYHEM**

**“Let the war begin”**

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## The Cause

- The cause behind creating this game is centred around saving the player from viruses and bacteria.
- It is to raise awareness about the importance of personal hygiene, health, and disease prevention.
- It teaches players about the concept of immunity, the spread of diseases, and how to protect themselves from illnesses.
- We also encourage players to adopt healthy habits such as getting vaccinated, using sanitisers, and staying away from harmful pathogens.

## Gamifying Our Cause

We have created a single-player game as our cause aligns better with such a game-mode. Through this mode, the game can deliver a more structured and focused educational experience.

Players can progress through levels at their own pace, absorbing information about pathogens, hygiene practices, and health concepts without distractions from other players. Moreover, a single-player mode is accessible to a wider audience.

The objective of the game is to navigate through various levels, each representing different environments where viruses, bacteria, and other harmful microorganisms lurk. The player's goal would be to eliminate or avoid these pathogens while progressing through the game.

To add depth and challenge, players have different tools or abilities at their disposal, such as antiviral gun, protection using a mask, or special powers representing the body's immune response.

Players have to face multiple physical obstacles in their path as well, while fighting all the microbes. To make the game more engaging, they can also collect some rewards (coins) along the way. As the level increases, the difficulties as well as the rewards increase and new elements are introduced.

## Target Audience

The target audience for our game, focused on health and hygiene, includes:

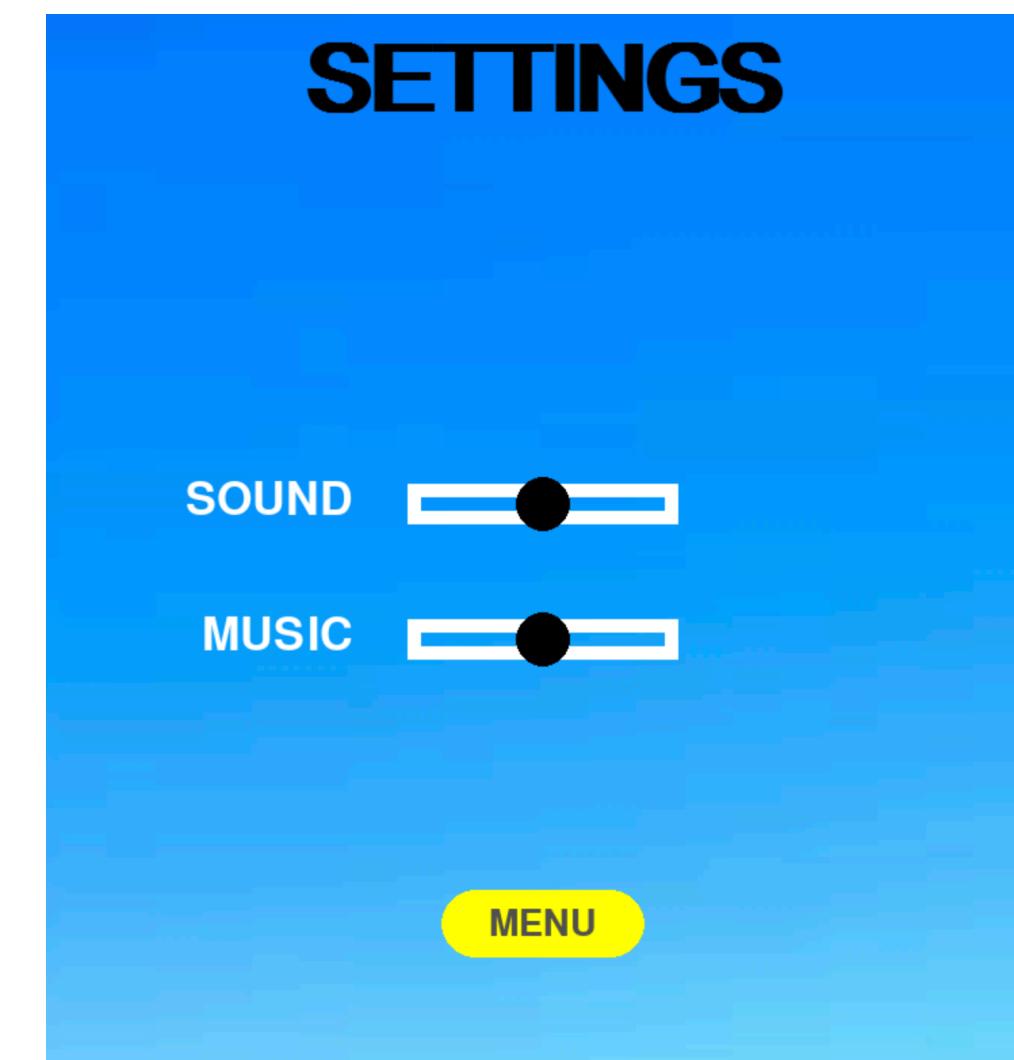
- Children and Adolescents: We aim at educating younger audiences about the importance of hygiene practices, to instill lifelong habits that contribute to overall health and well-being. For such an aim, we have created the game filled with vibrant graphics, engaging characters, and simplified explanations, which would be appealing to this demographic.
- Parents and Educators: Since our game promotes health education, it can be valuable tools for parents and educators looking to supplement traditional learning methods. They can use our games to reinforce lessons about hygiene practices in a fun and interactive way.

## Additional Design Choices.

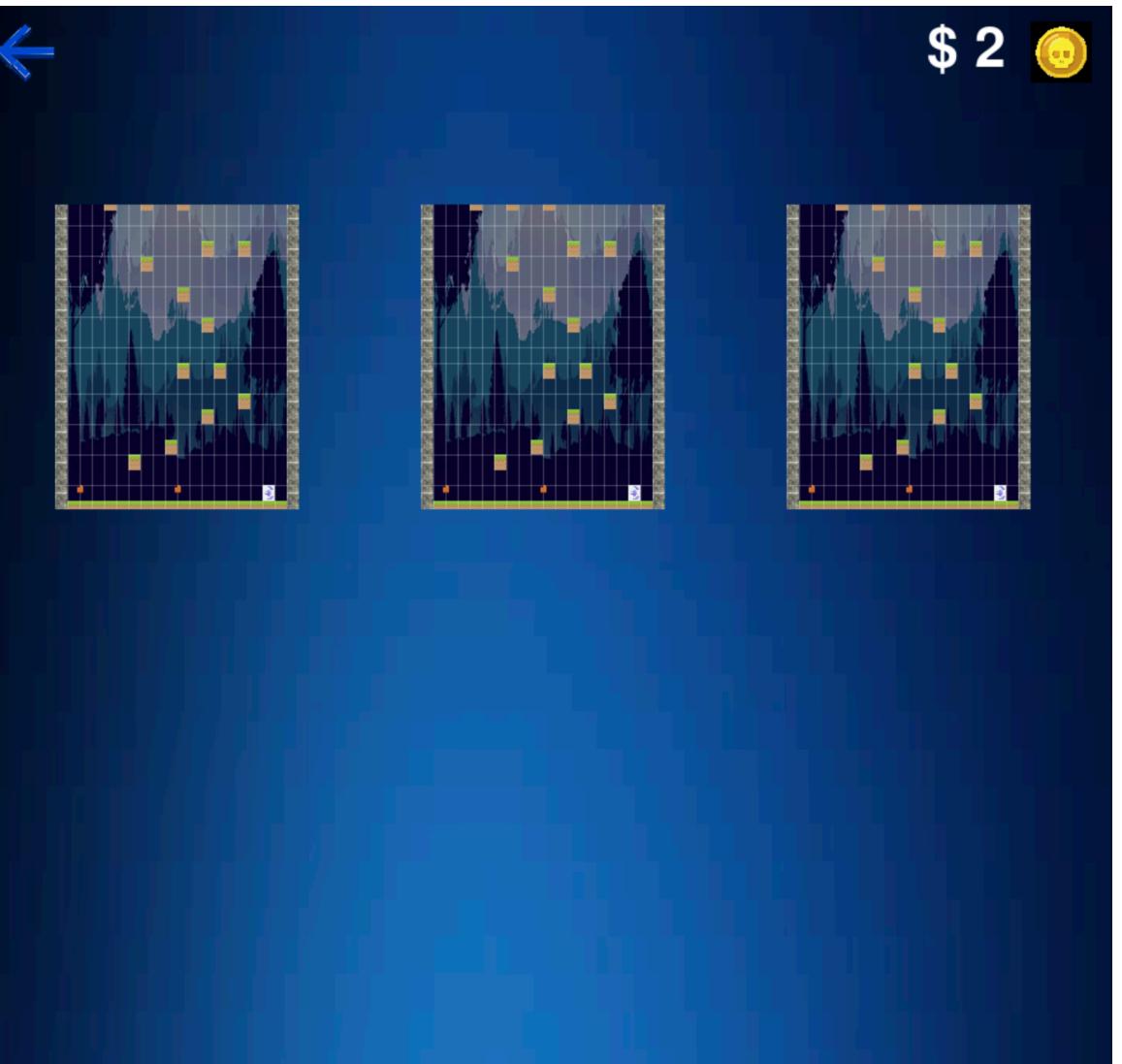
- Implemented various sound elements to make the game experience better and more real.
- Implemented dynamic buttons to make the navigation more indicative.
- Used various characters so that the users can play with their favourite one.
- Made the landscape i.e.. the game screen move dynamically both horizontally and vertically, offering players an immersive journey.

# User interface (UI)

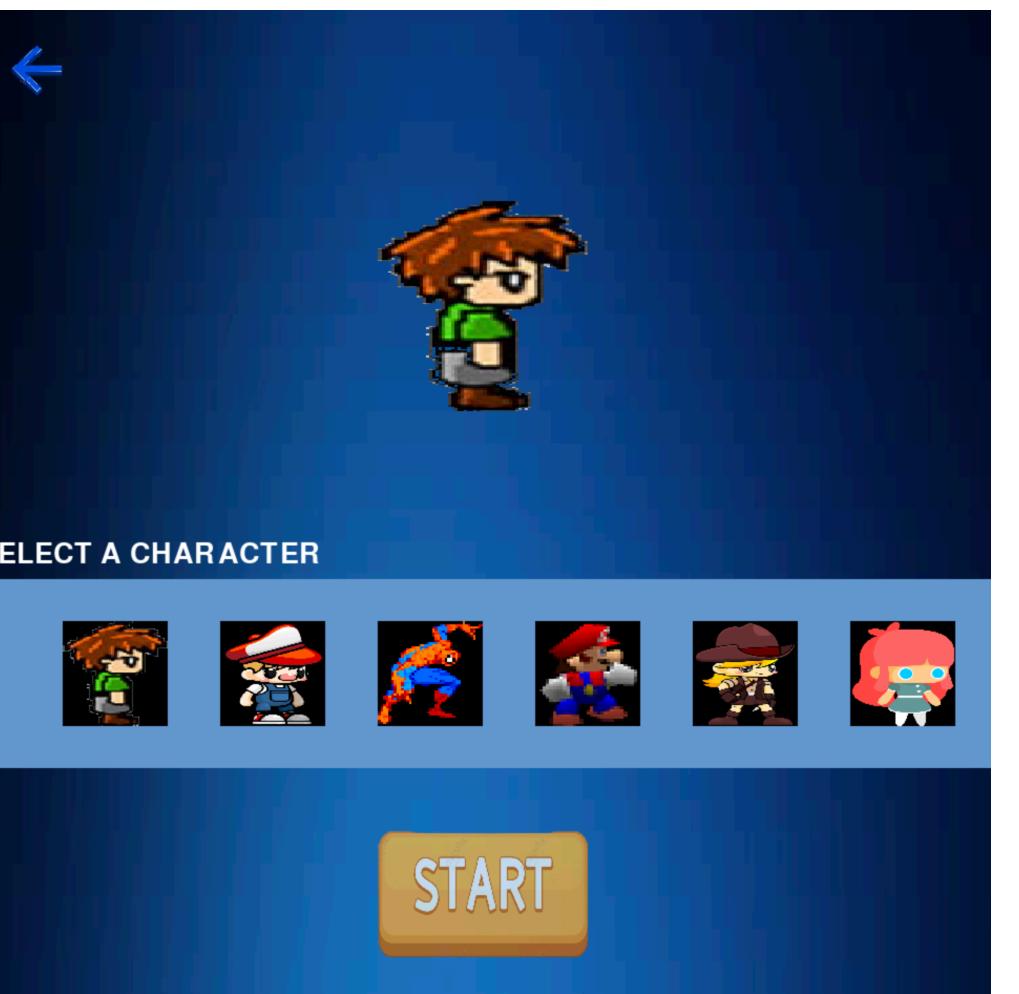
- Main menu : An inviting main menu screen with options to start the game, view settings, and exit.
- Settings : Allows the player to change music and sound levels according to their needs.



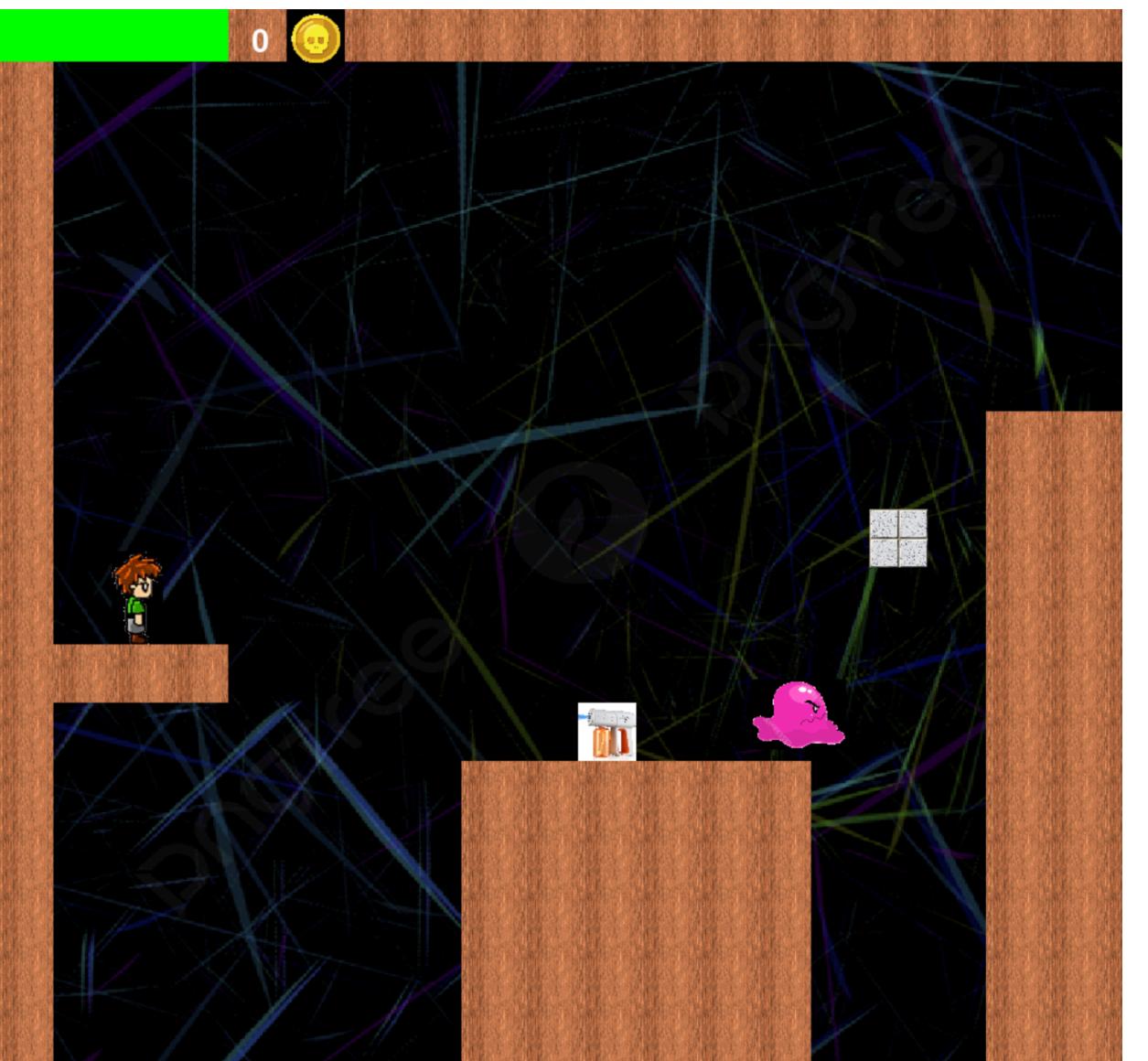
- Levels page : This is where the players choose the level to play



- Characters page : This is where the players choose the character to play with



- Game screen : Shows all the obstacles, the player, the health bar and the coins



## Communication Elements

- We have created different classes for all the objects and a major class (App) which handles events from all these smaller classes.
- We have also used many global variables to coordinate events such as level selection and game states.
- We have used inbuilt python functions to handle mouse and keyboard events.

## METRICS TO JUDGE OUR GAME

- We tried to include many different kinds of obstacles in our game performing different kinds of functions to make the game non-repetitive.
- The levels have been designed with a lot of thought and reiterations. They have been tested thoroughly for all the objects' timing, spacings and functions.
- We have tried to keep the game highly responsive, responding to user inputs with minimum delay. Also, the game's controls and interface elements (buttons) are very intuitive to use.