

Introduction to Game Programming

CS38101

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Project Report: Iteration 2

# Iteration 2 Report

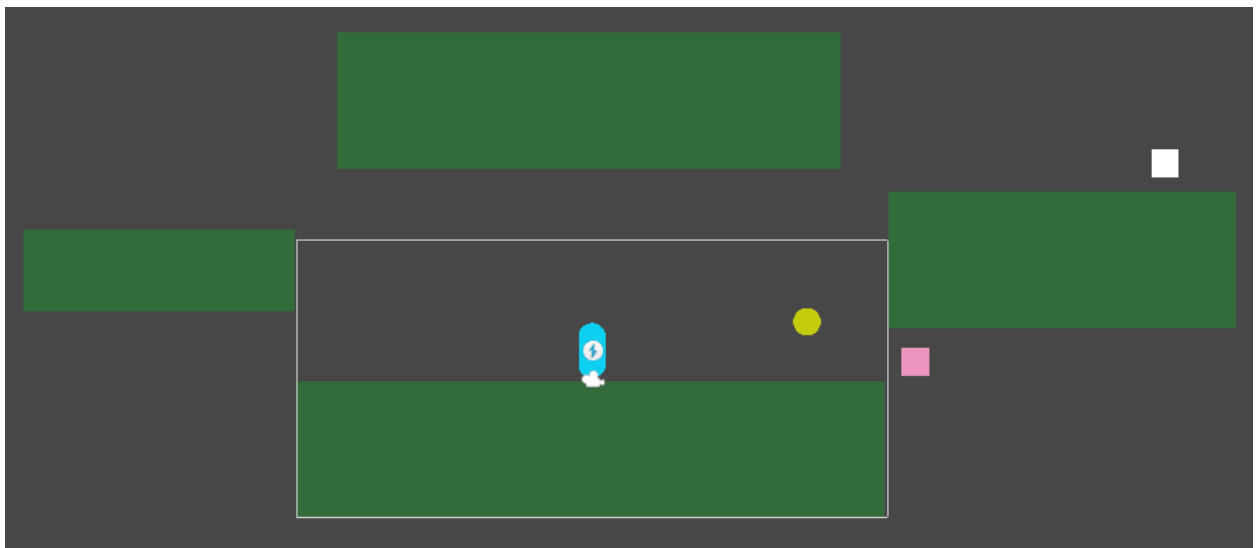
I am working alone on this project, so all the following tickets are my responsibility:

1. Make tilemaps for the following:
  - a. The ground
  - b. Collisions
  - c. Overhang (things that players can go behind)
  - d. The background
2. Make a folder for the following:
  - a. Entities
  - b. The player
  - c. Collectables
  - d. Coins
  - e. Testing scripts
  - f. Project reports
  - g. Tiles
  - h. Tilemap sprites
3. Make a coin
4. Have the coin disappear when a player collides with it
5. Make the player disappear when they collide with a white tile
6. Refine player movement (by adding and using an input system)
7. Add test scripts for the following:
  - a. The player
  - b. Coins
  - c. Green tiles
  - d. Pink tiles

- e. White tiles
- 8. Have the camera follow the player
- 9. Make a documentation file for when assets not made by me are used
- 10. Write tests for the Player
- 11. Write tests for the Coin


This list of tasks does not sync with the list provided on Github. This is because I had a different plan before doing the 2D assignment. I was initially very excited to implement a lot of features, but after completing that homework, I decided to change gears. My file organization was not good in my opinion, so I decided to focus on organization for this implementation and work on more features in the next one.


For the next iteration I plan on adding functionality to the green tiles, building a testing scene for testing all features, creating a skeleton UI, menu screen, settings menu, and controls screen. I also plan on experimenting with creating my own sprites. I have gained an interest in pixel art, and I want to try creating my own things before searching for other assets.



On the visual stage, not a lot has changed. I added a coin to the right of the player which will disappear when it is collided with by the player. This will have a use later with the skeleton UI as one of the things I'm planning on including there is a coin counter. The pink tile on the right has no functionality yet but I wanted to include it so that I am reminded of it. The white tile in the upper right does have functionality though it's not the type of functionality I plan for it yet. Right now, the white tile deletes the player when the player collides with it. Eventually the white tile will act like a goal post in Super Mario Bros where it will act as the transition between stages.

# Final Project

 [Documentation](#)

 [Tests](#)

I've started experimenting with an app called Notation for keeping overall notes on the project and ideas I have. Right now, it is bare bones because the only page that has content is the Tests page. Here I have been writing simple test ideas for each object in the project. My hope with this is to use these tests to simplify my code like I will be doing in my Software Engineering class (I've learned about it but haven't used it practically yet). Here are the player tests that I wrote:

# Player

- ▼ Scenario 0: Player is spawned

Given a player asset, when the game starts, a player should be spawned

- ▼ Scenario 1: Player is destroyed

Given a player asset that is spawned, when a destroy command is received, the player should be destroyed.

- ▼ Scenario 2: Player is collided with

Given a player asset that has a collider and is spawned, when anything collides with the player, it should be detected.

- ▶ Scenario 3: Player receives input commands

- ▶ Scenario 4: Player receives command to go right

- ▶ Scenario 5: Player receives command to go left

- ▶ Scenario 7: Player receives command to jump

The basic idea of these tests is that by writing a simple test, you write the simplest code to solve the simple problem. You then go to the next simple test, and you do the same thing for that test. Having a lot of these tests develops a strong foundation for efficient code. I am not certain if I will keep developing these tests or not, but I will evaluate that in the next iteration after I've used it.

Here is the link to my repository: [JsT02/Dimension-Shift \(github.com\)](https://github.com/JsT02/Dimension-Shift)