

## Computer Science Education Game

Team GJC

<https://github.com/JakenW/Computer-Science-Education-Game>

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### Each week:

1. You will add the week's status report at the top of this document (the latest week on top). This way, a historical record of all prior weeks of project progress is maintained. Do not change anything from the structure below. Add enumerated items (1,2, 3...) as needed, and remove enumerated items when empty. Remove all the red text on this document.
2. You update this file on your repository by Monday 09:00 am and send me an email (Subject: <Team Name> Weekly Report) with only the URL of your publicly accessible repository. Do not email your report.

Failure to submit or be punctual in the delivery of your weekly report will result in a -1% non-recoverable penalty to everyone on the team each week the report is either missing or late.

If there is a week that the College is officially closed or a Monday that falls on College closings (e.g., a national holiday), the submission deadline is moved to the following Monday. The last Weekly report is due on the last Monday of the week of classes. It is the team's responsibility to check with the Hood Academic calendar and figure the dates out, do not ask when is due when or if a report is due before, after, or during a school closing.

### WEEK 1 (FEB 14- FEB 21)

#### A. Weekly Accomplishments

Describe what task was completed and by whom. Complete sentences, paragraphs, and explanations are required. In parenthesis, provide the number of hours the team member worked on the specific task.

1) Several functions for the puzzle aspect of the game were completed this week. Firstly, two functions to dynamically create the labels for the game based on the positions of correct spots within the puzzle. The functions work for all tested conditions and do not leave trailing spaces. Another function for the puzzle was completed which checks whether a position within the puzzle, represented by an adjacency matrix, is a correct spot or an incorrect spot. All puzzle functions were completed by Jaken Whipp. The time taken to complete the label functions was 1 hour. The time taken to complete the function which checked for the correct position was 10 minutes.

2) The dialogue between the characters for day one is completed. This entails the beginning cutscene for the game and dialogue between the protagonist and the student. This task was completed by Christina Kong. The time taken to complete this task was 30 minutes.

3) The mock pages for the website where the game will be held are completed. The index page is completed, the registration and login pages are completed, as well as the page where the game will be displayed is completed. There are also pages to show the user if registration was a success or not. If the user inputs a wrong password when logging in they will be prompted and be able to try again with logging in. These tasks were completed by Christina Kong. All tasks took one hour to complete.

4) A mock layout of the game's map has been completed. This showcases where the locations will be, pathways, and how our protagonist will navigate through the environment. This task was completed by Christina Kong and took 40 minutes.

5) Flask routes were created so that a user could navigate through the main page, login, and register pages. This task was implemented by Jaken Whipp. Implementation and testing that the routes directed users to the correct page took 10 minutes.

6) Within the database to be used for the application, two tables were created to store information prevalent to the game. The first table stored usernames and passwords for the players of the game. The second table stored information about computer science questions which included the question, four multiple choice options, and the corresponding answer. This task was completed by Jaken Whipp and it took a time of 20 minutes.

7) A canvas front-end page was created which displayed a placeholder sprite and demonstrated that a user can use the page to navigate around a set environment/background. This functions as the main way a user would play the game as they control the placeholder sprite which will eventually be replaced by our main character. This task was completed by Grayson Swift. The amount of time taken to complete this task was 1 hour.

#### **B. Problems/Issues**

Describe the problem/issue, who is working on it, what the cause is, what has been tried to solve it, expected resolution. Complete sentences, paragraphs, and explanations are required. Explain how it may affect the project schedule.

1) The only problem that we have currently faced is installing/using Flask on one of the laptops. Jaken Whipp is currently working on this issue. He believes the cause to be the way in which Python is currently installed on the machine. Currently, he has tried to install Flask using pip and installing it through Anaconda. The next step he plans to take is to remove Python, cleanly install it on the system, and then try downloading Flask again. If this does not work, he will look into and use a container.

#### **C. Next week's planned work**

What do you plan to work on next week? Complete sentences, paragraphs, and explanations are required. If you have pending issues from section B, how will they affect next week's plan?

1) Add functionality to the mock pages so that a user can create account details which will be stored on the database. Add functionality to mock pages to test whether users within the database can log in. Create a table to store game data for the user and create a test page which will make sure data for a specific user can be stored within the database. If the issue within section B is not resolved, these plans will not be able to be completed on one of the machines; however, another machine with Flask working can be brought into the classroom. Additionally, research regarding how to pass information from a database/backend to a Javascript Canvas will be investigated.

These tasks will be completed by Jaken Whipp.

2) Draw the backgrounds for the primary locations; Teacher's Office, Hallway A, and Classroom 1A. This entails any objects in a location, entryways, and other details about the environment. The art style for the backgrounds will be pixel art, and for the time being these will be rough sketches and not the final product. These tasks will be conducted by Christina Kong. There are no issues from section B that will affect these particular tasks.

3) Draw the portrait art for the protagonist and student. These will be displayed on the dialogue box, near the text of dialogue. These tasks will be conducted by Christina Kong. There are no issues from section B that will affect these particular tasks.

4) Write the script for the Computer Science lesson for Day 1. This task will be completed by Christina Kong, Jaken Whipp, and Grayson Swift. There are no issues from section B that will affect this task.

5) Based on drawings, the mapping of collisions for the game environment will be done. This task will be completed by Grayson Swift. There are no issues from section B which will affect this specific task.

#### **D. Time log**

Total Number of Hours worked on the project this week per team member.

**Kong:** (2 hrs), **Swift:** (1 hrs), **Whipp:** (~2 hrs)

**Total Weekly Team effort:** 6 hours