Computer Science Education Game

Team GJC

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

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WEEK 2 (FEB 21 - FEB 28)

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) CRUD, in reality just create, functionality has been implemented through the front-end so that users can create accounts. When the user has input information, and the two password fields match, their account will be created (unless there is already an account with the same name) and will be added to the database. If the password fields did not match, or the account was already in the database, then the account will not be created and they will be redirected to a page telling them the account registration was unsuccessful. (Jaken Whipp, 2 hours)

2) The environment for creating pixel art backgrounds was set up. The applications that were used to complete this task were Procreate and Tiled. Prepared assets to be used for making the background. Assets are objects like the teacher's desk, tiles for the floor where the player will be able to walk on, lockers, etc. (Christina Kong, 2 hours)
3) Object interaction within the environment of the game had its framework created and work began on properly introducing collision where it is supposed to be in the environment. I also started a basis for a dialog system that needs further work. (Grayson Swift, 3 hours)

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) There was difficulty in transferring assets from the program Procreate to Tiled, though this problem was quick to solve. (Christina Kong)

2) Not having all of the assets readily available makes some preparation difficult and creating context sensitive interaction caused problems within the control code. Not impossible to work around but attempting to make a dynamic system is preferable to hard coding everything. (Grayson Swift)

3) There were some difficulties surrounding checking the account already in the database to make sure that two accounts were not created with the same name, however this was not a difficult issue to solve it just made the task take a bit longer than I had anticipated. (Jaken Whipp)

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) Continue working on and finish building the environment for the game. This includes the background for the teacher's office, hallway, and classroom. Sketches will be used as a guide to draw out the backgrounds. (Christina Kong)

2) Finalize the script for Day 1. This includes the dialogue between the player and the student (NPC, non-player character), and the Computer Science lesson. (Christina Kong, with help from Jaken Whipp and Grayson Swift)
3) Create a means for the dialogue system to transition into the puzzle aspect of the game. Also creating transitions between game areas. (Grayson Swift)
4) Begin integrating Grayson's initial environment test so that the routes will direct to the correct page and to ensure the user's experience with the canvas is what we anticipated (Jaken Whipp).
5) Testing the passing of data from the backend to the canvas on the front-end and vice versa (Jaken Whipp).
6) Create a table within the database which stores the puzzles (Jaken Whipp).
7) If time, begin working on the puzzle functionality on the front end, this requires #5 and #6 to be worked out as the puzzles are stored inside the database (Jaken Whipp).

D. Time log

Total Number of Hours worked on the project this week per team member.
Kong: (2 hrs), **Swift**: (3 hrs), **Whipp**: (2 hrs)
Total Weekly Team effort: 7 hours

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