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CART253 (Section B)

November 7th, 2023

<div align="center">Project 2 – Proposal Document</div>

Upon experimenting with JavaScript, specifically p5.js, through creating a variety of different simulations and mini projects, for the final CART253 project I have decided that I would like to produce a short visual novel game. The proposal document will cover the following topics regarding the creation of the final project:

1) A written discussion of my vision for the project.
2) The technical challenges and core ideas that will be tackled when producing the visual novel.
3) A rough timeline of the project's creation on a week-by-week basis until the submission date.
4) Some visuals to demonstrate what the visual novel should ideally look like in the end.

To begin, I have decided to create a visual novel for my final project, as I am familiar with this genre of game since I have created multiple in the past using other coding languages such as Ren'py and Python. As a result, I would like to challenge my JavaScript (p5.js) knowledge by attempting to make one in this language.

When it comes to what I envision for the project, I want to create a mental health centered game as these types of simulations were brought up a lot throughout the semester's exercises and I've always wanted to do one, but never had a great idea for it. Additionally, I would like the game to be mostly centered around the relationship between a student's mental health and school. The reasoning for this is because this is something that other students and I do experience, and as a result I feel that it is very important to highlight how one's actions can either positively or negatively affect one's mental health.

As for how the story will pan out with the choice options, they have not all been fully thought out yet, but the beginning of the game will go as follows:

Upon leaving the title screen, the player is introduced to the main character who is waking up in bed, where they are presented with their first choice being to either sleep in and get some extra hours in or go to school on time or earlier. If the player chooses to sleep in, they will be late for class and their mental health bar, which visually depicts the protagonist's increasing or decreasing mental health status present at the top left of the screen, will go down. However, if they wake up on time and go to school normally, their mental health bar will go up upon arriving to school on time and being with their friends. The player will then be prompted with roughly 6-7 other scenarios such as the opening one where they are picking between 2 choices that will either positively or negatively affect their mental health meter. Upon reaching the end of the

game, if their mental health meter is less than 50%, they will encounter the "bad ending" for the game, but if they mental health meter is above 50%, they will encounter the "good ending".

The main core ideas from the course that will be utilized when developing this project will be mainly if and else statements, classes, and text strings. The central theoretical element of this project will be the use of if, else, and else if statements, as these will be used to construct how the game progresses when one choice is picked over the other, how said choices affect the mental health meter, and overall, how one scene progresses to another. Classes will mainly be used when forming the choices code, as the same principle will be applied to each choice option that appears. With the help of classes, having the code for it structured and created once will make it so that I can apply it to the remaining choice options that occur. Lastly, text strings will be used to mainly format the on-screen text of the game, including the characters' names, the dialogue, and the narrator text. By using the "charName:" and "txt:" strings within an array, it creates all the choice options and the dialogue that will appear throughout the game, which can be referred to when doing the if/else statements for the different outcomes. Now, some potential difficulties that may arise when producing this project are that certain if/else statements may not function properly, the setup and implementation of the classes into the main script.js file may not be as smooth as envisioned, and the implementation of certain assets, such as the changing character facial expression, multiple backgrounds, and having more than one character on the screen at a time, may become challenging to integrate within the code.
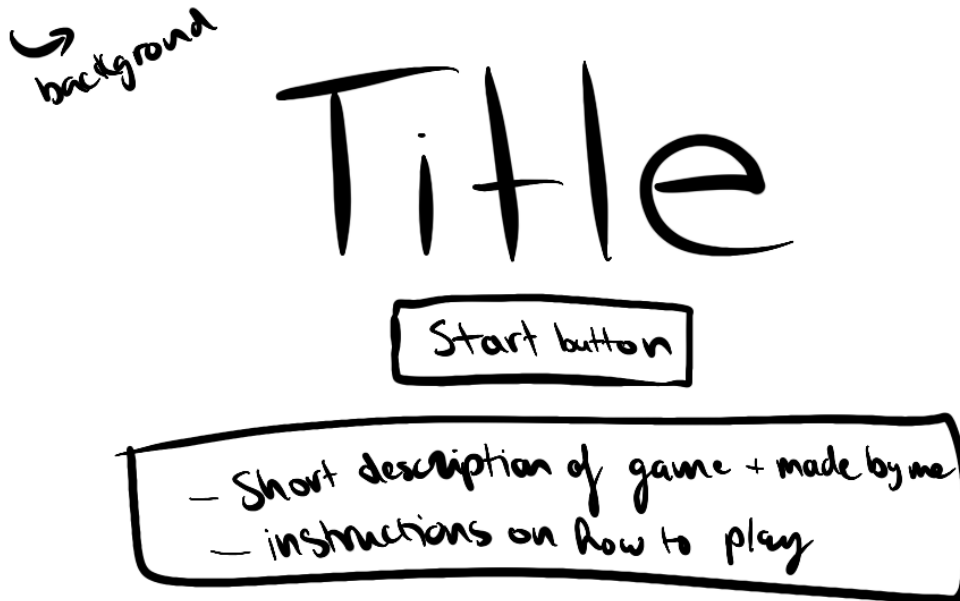
Lastly, before demonstrating some visuals for what I would like the title screen, main simulation screen, and ending screens to look like, below is a rough timeline on how I would like to go about completing this project.

1) Week of October 30th: complete the Project 2 Proposal document + Project 2 prototype to get the idea approved and start the coding with a single scene.
2) Week of November 6th: begin producing the code for the game and try to roughly get one that has a start, middle, and end point (does not need to look pretty or include every scene yet, but manages to start and finish successfully)
3) Week of November 13th: if the start, middle, and end points of the game are not complete yet, try to finish those as soon as possible. If those are completed, begin on making one fully completed scene (i.e: has the text written and implemented, has both choice options which progress into different story paths depending on the choice, mental health meter increases and decreases depending on the choice made)
4) Week of November 20th: if the fully completed scene is not done yet, try to finish that as soon as possible. If it is completed, do so for the remaining scenes. Prepare for the upcoming presentations of what is completed thus far for the following week.
5) Week of November 27th: continue coding the remaining scenes (choices, dialogue, mental health meter) and present to the class what is completed thus far. If possible, can also make the assets for the game, including the title logo, the UI for the text boxes, and the character art (if time provides it).
6) Week of December 10th: finish the entirety of the code for the visual novel and ensure that it runs smoothly and effectively from the beginning to the end. If it does not or
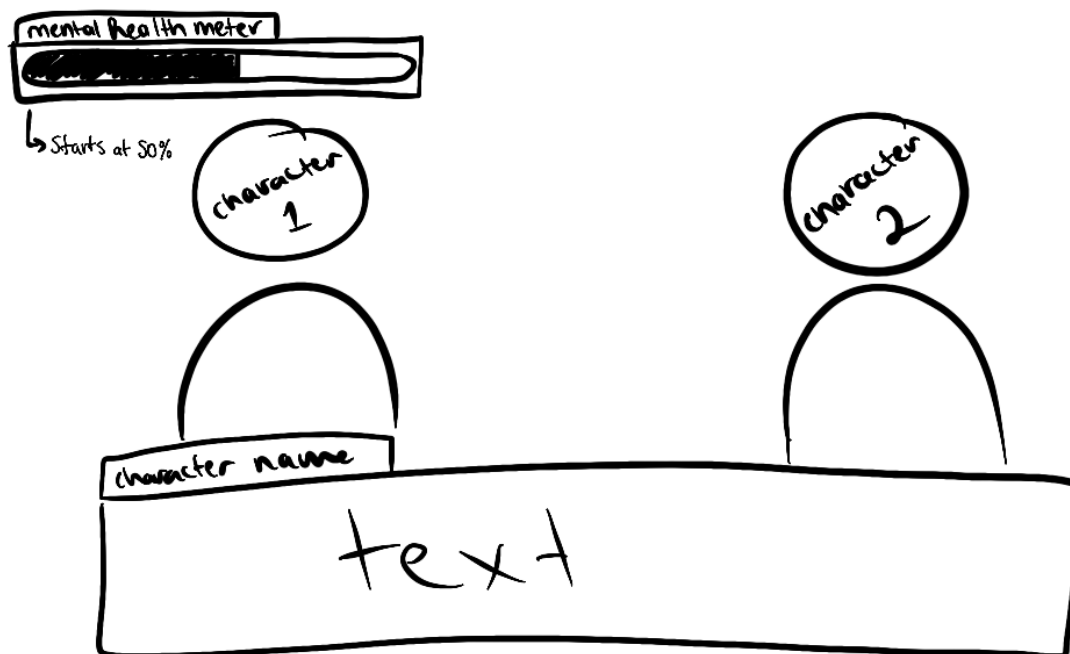
there are any errors, make sure to reach out for any required assistance to ensure that the project is completed and submitted on time.

Finally, below are some sketches of what I would like the visual novel to resemble upon completion.
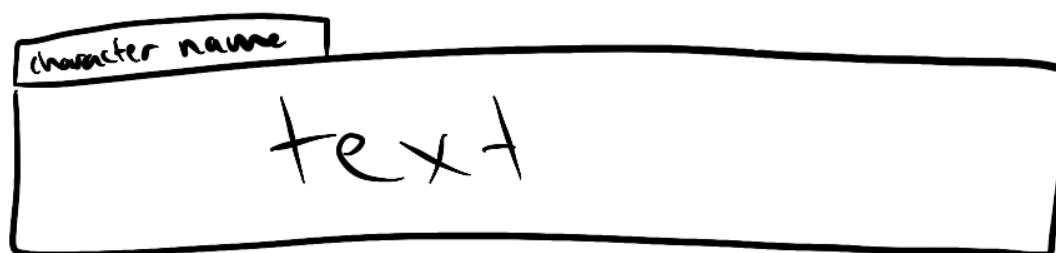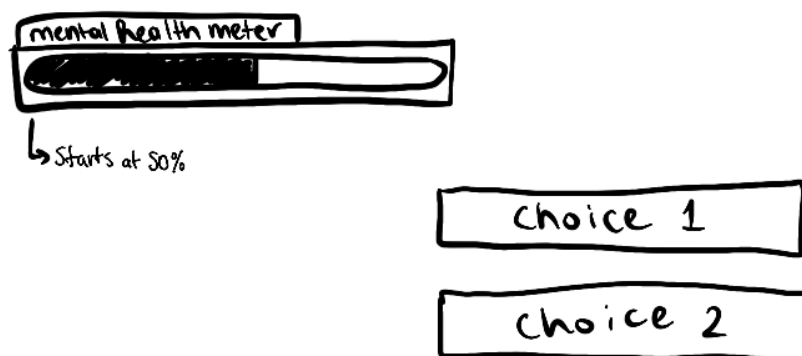
Title screen layout:

Main Scene layout:

Choice scene layout:

mental health meter

↳ Starts at 50%

Choice 1

Choice 2

character name

text

Good/bad ending screen layout:

mental health meter

Good/Bad ending

good/bad ending description