Video Game Design I: Game Assignment

Overview: As you know, the core objectives of this course include both the theoretical understanding of basic game design principles and the practical application of those principles toward the construction of your own game built in Gamemaker. Thus, your final project should demonstrate not only technical capability, but also sophistication in design. Do note, as a solo creator working to make a complete game in a very short amount of time, it will be essential to be thoughtful about the elements you choose to include. More mechanics do not necessarily make a better game.

Technical Basics:
- Your game must have a minimum of three full animated objects. Note: Objects are not instances- a walking enemy might have many instances but in actuality be only one animated object. Similarly, a single player character may have only one instances but in actuality contain many animated objects.
- Your game must have effective use of both background music/noise and triggered sounds. The sounds should both complement the theme of your game and act as a means to convey information to the player.
- Your game must either have a scrolling background with randomized elements or contain at least three rooms. The direction you choose will, of course, depend on the genre of game you create.
- Your game should demonstrate some means of difficulty scaling, the implementation of which can vary drastically.

Design Basics:
- Your game must have a theme that is clearly identifiable through the sprites, backgrounds, and sounds you have chosen.
- Your game should be clearly identifiable as a particular genre (though you are certainly welcome to mock, challenge, or otherwise critique that genre).
- The programming choices you make should enhance the gameplay experience. Consider our discussion of the various ways to program hitboxes, and how each option enhances or detracts from a particular game play mechanic.
- Your game should demonstrate your critical understanding of the deep interplay between rules, culture, and play discussed in the Salen and Zimmerman readings.

Stage 1: Design and Alpha Testing

In the first design stage you will be working entirely on paper. You should produce a Design Document, really a compilation of three documents which will be discussed in class:

1. Genre Analysis: A brief document summarizing the key features of the genre you wish to work in and listing similar/competing games. While not conventional scholarly research, this is nonetheless a research-based document, and you should use your skills to "quote" from the games you highlight, cite important sources, and convince the reviewer of the importance of the genre features you highlight.
2. Design Outline: An overview of the main elements of your game, including the theme, setting, gameplay, and key mechanics. In your design outline it should be

clear how your game demonstrates or critiques the genre features you list in your genre analysis. Be as descriptive as possible- the Editorial Board will be questioning, critiquing, and making recommendations based primarily on this section of the proposal.

3. Concept Art: An image gallery containing several images for each of the following: player character, background/settings, enemies, other important visuals as needed by your particular game. These can be drawn from anywhere, and may include copyrighted works. These are not the **final** images that you will use in your game, rather they are inspiration pieces that will help evaluators understand the theme you hope to display.

Your completed design document will be turned in to me in hardcopy and presented to an Editorial Board. 75% of your grade will come from the document itself, while 25% will come from your (prepared, knowledgeable) attendance before the Editorial Board.

In addition to making a formal presentation of your design document to the Editorial Board, you will also complete a paper frame of your game. We will develop paper frames in class and you will test out the flow, mechanics, and basic concept of your game. While your paper frame will not give you much insight on how your theme or play experience works, it will help you think about the types of object interactions your game entails and the rules you will need to create.

Stage 2: Development and Beta Testing

In this stage you will be working on the development of a first prototype of your game. While it is common to spend a great deal of time polishing the "fine details" of your game- the art, the music, the animations- these are ultimately unessential if your game crashes on load. Thus, you are encouraged to build this first digital version as a true prototype. You may use placeholder graphics, you may have non-essential interactions left out, and you may forgo the Start/Ending screens. In other words, you should deliver to the Editorial Board (and me) a game that:

- Has the essential interactions for your game in a full, working state- things like health bars, object interactions, fail states and win conditions should all be in working order
- Can be played from start to finish with no bugs
- Presents a complete picture of how the finished gameplay will operate- your difficulty scaling, your key mechanics, and the general path through the game should all be complete and in working order

You will not meet with the Editorial Board during this stage, but they will be referring back to both your design document and their comments on it prior to playing your game and as they formulate their feedback. Thus, you will write a one page letter of transmission that briefly summarizes the game and makes note of their previous feedback on your work.

Stage 3: Finished Game and Reflection

In the final stage of this project you will complete your game, taking into consideration any feedback given during the both the beta test and the design document presentation.

Do note that you are welcome to selectively ignore feedback given to your prototype, however you must address any comments you chose not to heed in your reflection. The completed project should meet the terms stated at the beginning of this document and represent the best of your abilities in Gamemaker and your understanding of game design as an iterative process. This game will be demoed at the Digital Cultures and Technologies showcase, and full versions will be distributed to the Editorial Board for final comments.

In addition to completing the full game project, you will complete a brief artist's reflection. This reflection should explain your design process in the context of our readings- in other words, this is your opportunity to demonstrate how the theories we have discussed throughout the course enriched and enhanced your design process. This should be a roughly 3-4 page informal document.

Beta Testing Worksheet

Overview: Thank you for agreeing to review this series of games. Beta-testing these games involves two important components: bug tracking and game critique. While the creators have tried to ensure that they give you a bug free game, it is likely that each game will have at least a few errors; careful recording and explanation will help the students identify the errors in their code. While bug tracking is extremely useful, game critique is the most important part of this beta test. Please give your full and open comments on the game- the students have been instructed that they do not have to heed all comments, but must thoughtfully respond to any suggestion or criticism they chose not to take.

Bug Tracking Instructions
Severity/Priority: On a scale from 1-3, describe how gravely your bug affects the game with 3 being the most severe and 1 being the least severe. An example of a level 3 bug would be something that causes the player character to be unable to move or otherwise continue the game, anything that renders the game unplayable. A level 1 bug would be something akin to "the colors flash in a displeasing manner".

Description: For each problem that you encounter, explain precisely what occurred and what process led to said problem. For example, a full description might be along the lines of "After walking right, the character flips back to face left and floats above the platform." If possible, include a screenshot and/or video documentation of the issue either during or after it happened.

Frequency: How often does the bug occur? Does it happens once, twice, three times etc? How consistently does the bug happen when the player perform a certain action? You should not spend all your time isolating bugs, but it would be helpful to try to replicate any you find. Once a bug is found the creators will attempt the actions again after the beta test.

Location: What level/where on the screen were you when the bug occurred? How long had you been playing the game? What objects were on screen and where was your player moving? Please describe what happened. If possible, include a screenshot.

Bug Recording:

#	Description	Severity/Priority	Location	Frequency
1	**SAMPLE:**Character freezes and game must be restarted	3- game is unplayable after freeze and requires a forced shutdown of the game	In the second area, when trying to open the chest on the bottom left corner	This bug occured everytime I tried to open the chest, but the game was playable if I didn't interact w/it
2				

Game Critique Instructions
Before answering the questions below, please take a minute to review the original design document you received, your previous comments on this project, and the student's letter of transmission. In addition to looking at the mechanics of the game, I encourage you to think about the designed game space- does it seem to fit the genre? Is the theme strong? The narrative? Has the student demonstrated an insight into craft and design?

- How enjoyable was the gaming experience, on a scale of 1-5, with 1 being the lowest and 5 being the highest.
  - Grade____
  - Comments?
- On the same scale, how difficult did you find the game?
  - Grade____
  - Comments?
- Would you play through the game more than once? More than five times? Why/why not?

- If you were to change the game, what changes would you make?

- Did the aesthetics seem uniform throughout the game (in regards to the images and sounds)?

- If there was a narrative element to the game, did it make sense? Could you follow the motivations of the character(s)?

- Does the game remind you of any other games, either in style or in gameplay?

- How well did the game function? How smoothly did the game run and how well did the objects interact with other objects?

- Has the game evolved as you envisioned from the design document you reviewed to this beta version? In what ways?

- Other comments for the creator?