

Problem:

Write a detailed project report about your game and game development. Your report should follow the following format.

1. **Title** of your game and authors of the report. Provide your group GitHub link

Inspector Waddles – Sophie Hasara, James McIntyre, Aakriti Shah

<https://github.com/Bubbles-16/CMS395-Fall2023>

Introduction: This should answer the following questions

- a. **What is this game about/background, and why are you choosing it? What is the motivation?**

The main idea behind this game is that the player becomes a detective. He has the job of getting out of this building with multiple rooms, which he or she has to methodically escape. Each escape room is a level. There is an overarching storyline to the rooms, with the mystery being solved at the end of the game, if the player escapes all 3 rooms. We chose this idea because we all like doing escape rooms and there aren't many games already about this topic.

- b. **Who are the target users?**

The target users are children, teens, and anyone who would be interested in simple puzzle and problem solving games.

- c. **What is the context/game world?**

The game world consists of the player being in a building with different rooms (levels) in a 2D overhead view. There is a lobby area where the player can choose from different levels and review the storyline.

- d. **What are the game rules?**

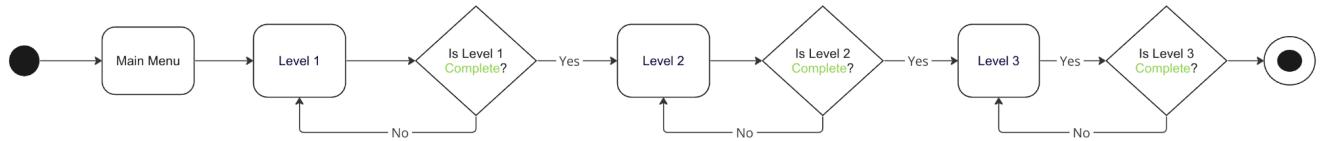
The player looks around to find possible clues they could use to escape the room (level) that they are trapped in. The player must use the clues within the room that they are currently in, in order to escape, and then move on to the next room. The first room must be escaped before the next one can be accessed.

e. What are the controls (keyboard, mouse, joy stick, etc)?

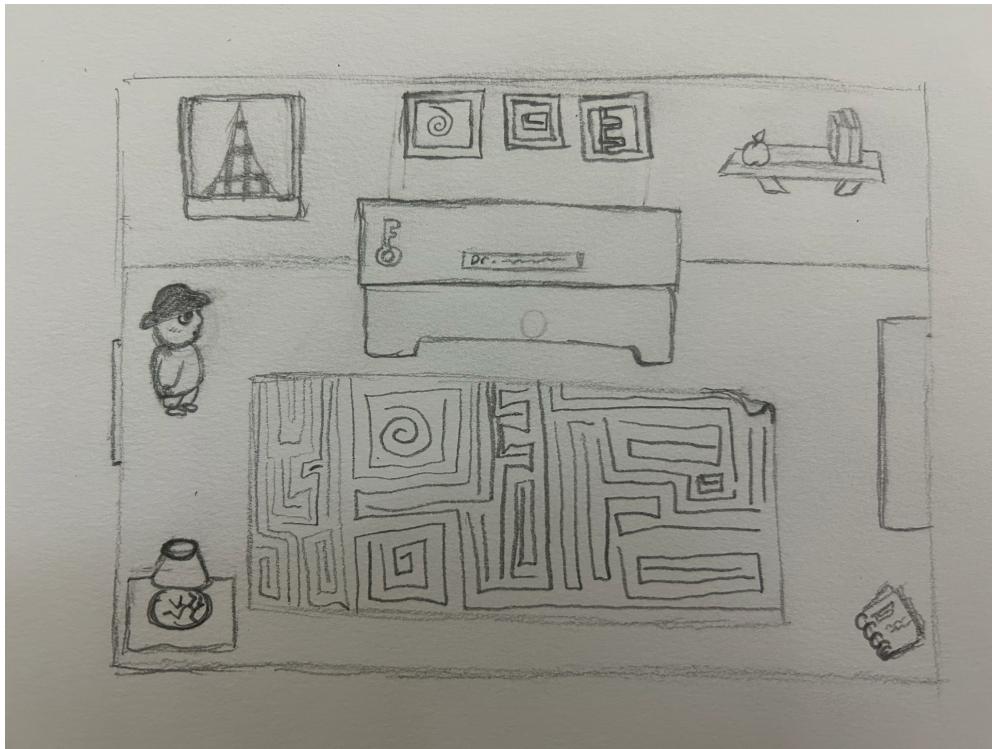
WASD is used for movement around the screen. The game does require some keyboard input, after which the player must hit the “Enter” key for the game to register their input.

f. Provide a rough sketch plan if you have any.

Here is a rough idea of how the flow of gameplay will work:



Below is a rough sketch of a level concept:



- g. What would be the task distribution among teammates?
- Sophie - team lead, artist, story
 - Aakriti - programmer, story
 - James - programmer, story
2. **Game Development:** Write in detail how you developed your game. Mention who did what. You can write it by order of your game events or by order of your team members.

Game Mechanics:

- James and Aakriti collaborated closely on designing and implementing all gameplay mechanics – player controls and capabilities, level designs, progression systems etc.

Storytelling:

- Sophie was the creative lead on the overarching narrative, stories, and character backgrounds that shaped the playing experience.

Visual Design:

- Sophie led visual design efforts – art style, assets, animations, and UI aesthetics were made with Notability.

Game Pacing:

- Levels were iteratively playtested by the full team to fine-tune difficulty curves and gameplay pacing for an optimal player journey.

Player Engagement:

- We all provided feedback, to assess the enjoyment and challenge that the player would face and making adjustments to maximize engagement.

Graphics & Audio:

- Sophie handled all graphics – concept art, finished assets, animations, UI designs; while Aakriti implemented audio/music direction with input from Sophie on connections to storytelling.

Pre-Production Stage

The initial concept for the game was developed by Sophie, who came up with the overall storyline, settings, and main characters. As the creative lead, she drafted the background story and the overarching narrative. James and Aakriti handled the technical pre-production work. They researched the tools that they would need within Unity and how to implement what they have learned in class all semester. Sophie conceptualized the visual design direction – color

schemes, art style, and UI aesthetics. Her photoshop mockups of scenes and characters helped bring the ideas to life visually and within the game.

Production Stage

With much of the pre-production complete, we moved into full development mode. Sophie continued expanding the story sequences and key events, while providing the illustrations and visual references James and Aakriti used to create the finished game. On the programming side, James and Aakriti worked in unison with putting Sophie's plan to action using Unity and C#. They worked on implementing specific gameplay features, user interfaces, and user input receptors. They worked closely sharing code on GitHub and ensuring components synced properly. In turn, they all also learned how to use GitHub Desktop and how to share code more efficiently. The finishing touches, like some music and artwork were added and the game was basically complete.

Post-Production

In the final polishing stage James and Aakriti mostly just fixed bugs and added Sophie's artwork. With the heavy lifting done, all they had left was to create video clips demonstrating core gameplay.

Final Game: Take a video record of your gameplay and add the link here.

https://drive.google.com/file/d/1xCC11djJPVp-3feNSuf4_yypu85ki_ya/view?usp=sharing

Discussion and Future work:

During development we were pretty intimidated by Unity. It was different from anything we had worked on before, and it was difficult to get all the parts to match up. The most

frustrating part was having the scripts be completely separate from the in-game sprites and features, so that every change had to be applied in both places and it left a lot of room for error. This difficulty was overcome by a larger time commitment and a lot of patience between the three of us. We also had another issue with having different operating systems. Two of us operate on mac and the other uses windows, and Unity would not allow the windows user to open the projects pushed from the mac computers. This made it difficult to code and test the game, but the Windows user ended up focusing on the non-coding portions of the projects and contributing where possible without testing features. Lastly, in the future we would like to learn how to implement more puzzles and apply those in our game and possibly add more of the story aspect as well, rather than the game just being story-less escape rooms.

Some feedback we received from our game testers were design related as well as functionality of the game. For game design, the users mentioned they would like a hat for Inspector Waddles and they would like to be able to use the arrow keys as well as WASD. Some other feedback we received is that the riddles were too hard, but others found them really easy, so we think it would be good to add different versions of the levels– an easy and a difficult version. Lastly, we heard that there should be clues around the room for the riddles rather than the riddles just being related to ducks, and that they wish there were more riddles per room.