

Requirements

Requirements Gathering

The requirements, listed later on in the document, were gathered through an iterative process taken between the client and the development team. We created an initial list of requirements by analysing the brief given by the client and then deriving this initial list of user requirements. After the generation of these initial requirements, we took this list to the client and interviewed them to resolve any ill-defined requirements and to otherwise get a confirmation about the rest of the requirements we listed.

Once the user requirements had been defined, the system requirements were then derived by being more specific on how the system will achieve the requirements defined in the user requirements. This was, like the user requirements, done by discussing as a team how the system should meet the user requirements, as well as discussing these new system requirements with the client.

Once a sizable list of requirements were generated, we were able to go about creating a paper prototype to demonstrate how we think the program with regards to gameplay/functionality and user interface. This enabled us to further validate and find errors and misunderstandings with requirements and the gameplay/functionality with the client and correct these.

This process was an appropriate one for gathering requirements as it allowed us to modify the requirements and then confirm them with the client. This allowed us to find errors in the requirements and to correct them quickly so that we don't waste time on other requirements which may depend on these erroneous requirements.

User Requirements

The Setting

1. Murder-Mystery at a Lock In Costume Party in an early 20th century setting where party is still taking place despite the murder
2. The art style must be "pixel art" with a sepia tint
3. The Ron Cooke Hub can be fictionalised to a large degree but must provide an accurate location for the game story to make sense.
4. The game must provide some dynamic storytelling
5. Include at least 8 rooms of different sizes

The Great Detective Character

6. The player will play as the Great Detective
7. The player will be able to choose between different detective costumes
8. The player will be able to customise the personality (Style/Behaviour) of the detective

Suspects

9. The suspects will have individual personalities, able to tell interesting stories
10. There will be at least 10 suspects
11. The player will be able to interact with the suspects to gather evidence
12. The player will be able to accuse suspects once enough evidence has been gathered

General Gameplay

13. A way of keeping track of clues, notes and conversations must be available

14. There will be objects (i.e. furniture, items on the furniture) in the rooms, some of which will be clues

Open Day Mode

15. "Open Day" mode for the UoY communications office's open days. This will make the game faster and playable in a few minutes

System Requirements

The Great Detective Personality Traits

1. The player will be able to select some character traits for the detective. Three will be chosen for the detective at the start of the game, these affect the questioning styles you are allowed to follow in game.

These two requirements define how we will satisfy the client's requirement to have a customisable personality. In order to reflect the dialogue screen, we will use these traits as the questioning styles the player uses in game. This also provides the player with a mean towards richer interaction rather than limiting the player in their actions.

Game Play

2. The Gameplay will be 2D top-down
3. It will be played upon a map screen

We decided, and came to an agreement with the client, to represent the in game world with a top down view of the map of the Ron Cooke Hub because this is a conventional way of doing a 2D role playing game; a genre which hands itself well to this type of game. This was preceded with the decision to make the game 2D, simply because a 3D game with the team's capability and time would be too difficult and the 3D gameplay probably would not add much to the gameplay.

4. The player will be able to control the detective's position
5. The in-game time will be pseudo real time, time will only pass if the player performs an action with the rest of the world reacting to this change of time
6. The murderer will be randomised
7. The victim will be randomised
8. The mean or method of the murder will be randomised
9. The selection of clues will be randomised
10. The specific characters on the map will be randomised
11. The number of suspects present on the map will be random but will be larger than 10

These requirements provide some of the dynamic storytelling as specified in the brief and user requirements. Some of the specific things being randomised were taken from suggestions in the brief whilst other were from interviews with the client.

12. A notebook will be included which will automatically add conversations and clues to its log.
13. The notebook will allow the player to add their own notes

These two requirements fulfill the need to track conversations, clues and notes as specified in the user requirements. A detective's notebook was agreed to be an appropriate way of tracking these and keeping in line with the setting and narrative.

The Map

14. The specific rooms on the map will be randomised

15. There will be at least 8 rooms on the map
16. The layout of the map will be randomised

These two requirements also contribute to the dynamic storytelling as specified in the user requirements. These are two of many other parameters which will make each playthrough unique.

Characters

17. The characters will be able to move between rooms on the map
18. They will only be visible whilst in the same room as the player or for a short period after they have left the room
19. The player will be provided introductory dialogue
20. The player will be provided closure dialogue

Modes of Interaction with NPCs

21. The player will be able to question the suspect with a chosen style defined by the traits selected at the start of the game
22. The player will be able to accuse any suspect
23. The accusation will fail if the character is not the murderer
24. The accusation fails if player has not gathered enough evidence.
25. The accusation fails if the player has not found a motive clue
26. The player cannot question the character for the rest of the game if the accusation is false
27. The questioning screen will be a dialogue screen
28. The questioning screen will provide options for interaction with the character based on the styles chosen at the start of the game

These requirements exist so that we can meet a user requirement which specifies for there to be a way to interact with the suspect characters and to be able to accuse them. This expands upon the initial requirement by including points around clues and the dialogue system which is related to this section.

Objects and Clues

29. There will be objects in the rooms
30. Objects become visible when the player enters the room which contains it and remains visible for the rest of the game
31. Some objects must be clues and blend into the rest of the objects
32. Objects must make sense in terms of context and placement
33. There must be one clue tied to every room and a motive clue and a means/method clue must be provided for each game. Irrelevant clues must be included

This fulfills the user requirement for there to be objects in the rooms and for some of them to be clues. This section also includes other constraints on the clues and objects which were agreed with the client to be necessary additions.

Win/Lose Conditions and Stats Screen

34. The win condition is to successfully accuse the murderer
35. The lose condition is to falsely accuse too many suspects
36. A stats board (Time taken, Number of Missteps, etc) will be shown at the end of the game

Open Day Mode

37. Open day mode will reduce the number of suspects, rooms and the subtlety of clues

Nonfunctional Requirements

1. The game must run at 60 updates per second (averaged over 1 second) at least 90% of the time, on the hardware specified in the hardware requirements
2. The game must be usable by at least 80% of users without external help and without the manual
3. The game must be deemed visually appealing by at least 50% of users
4. The game must be deemed to have an art style influenced by pixel art with a sepia hit by at least 80% of users
5. The game must be deemed to have a cohesive narrative by 80% of users who were able to use the game
6. The game must be deemed to be fun by at least 50% of users who were able to use the game

Hardware Requirements

CPU: Dual-core processor (min 2.0GHz)

RAM: 4GB

Resolution: Min 1366x768