School of Computing
Group/Team: <17>

<Compudo Game> System
Software Requirements Specification

Glossary

Conformance Glossary

The following keywords are used to differentiate between different levels of requirements and optionality, as defined in IEEE Std 100-1992 [RD11].

Shall: indicates a mandatory requirement. To ensure interoperability with other products conforming to this standard, all mandatory requirements must be followed strictly with no deviation.
Should: indicates a recommended but not mandatory requirement. Allows flexibility of choice between several possible alternatives while indicating a strongly preferred alternative. Indicates that a certain course of action is desirable but not mandatory, or indicates that a certain course of action is deprecated but not prohibited.
May: indicates a suggested course of action without implying preference over any other possible course of action.

Glossary

Term	Description
E.g. Administrator	A user of the system who has administrative privileges.
Stock Item	A product which is available for sale and which may not necessarily be in stock at the time of ordering.

Introduction

A new computer game known as Compudo is to be created. The following document will provide a specification of the requirements of the game.

Background / Vision

A group of computing students at Dundee University have been commissioned to create a new computer game which is to be a creative new spin on the classic mystery board game Cluedo.
In Cluedo the players must solve a murder mystery that has been committed. Through a series of accusations and ruling out suspects the players should be ablate complete the case. In Compudo however the crime takes place in the Queen Mother building rather than a mansion, and the crime that occurs is more computing based rather than a murder. However the base rules of each game are very similar. Players move around the board by rolling the dice, inspecting evidence at numerous occasions until the perpetrator of the crime is obvious

FUNCTIONAL REQUIREMENTS

Game play

1.*Rolling dice*

It shall be possible to roll a virtual die in the game
Rationale: Being able to roll a dice is essential to the playability of the game

2.Player moves(number)

Players should be limited to move the number of spaces the rolled
Rationale: This will limit the possibility of players cheating by moving more than their role

3.Player moves(direction)

Players should be limited to moving horizontally and vertically
Rationale: This is in accordance with the rules of the original game. This limits the players movement so they cant move around the board too fast .

4.Entering rooms(direction)

Players should have to enter each room through the specified entry point
Rationale: Similar to the last rule this is to limit the players movement making it a more fun game.

5.Entering rooms(number)

Players should have to count the entry space as a part of their role when they leave a room
Rationale:Again, this is in accordance with the rules of the game to ensure the player cannot move through rooms easilyEntering rooms(number)

6. Moving floors

Players shall only be able to move to the second section of the board by accessing the stair location.
Rationale: limiting the players movement adds a higher level of strategy to the game, making moves between floors more meaningful.

7. Player's start location

Players should be randomly allocated to a room at the beginning of the game .
Rationale: the players should be allocated randomly so that none of them have an advantage at the beginning of play.

8. Players(number)

The game shall have the capability for 6 players at one time
Rationale: having up to 6 players in the game ensures a certain level of playability in the game

9. Players(solo play)

The game shall have the ability for a solo player to play against the computer.
Rationale: This means a player can play by themselves without the need of others

10. Character assignment

The game shall randomly assign characters to each player at the start of the game
Rationale: This means that each player has the same chance of getting any of the characters.

11. Token assignment

The game shall assign each player a coloured token, at the start of the game, according to what character they get .

Rationale: this helps the players differentiate between the tokens so they can tell which one they are.

12. Player turns

Players turns should be in a strict order, predetermined at the start of the game.

Rationale.: This makes sure each player, in theory, gets the same number of chances to play.

13.1 Player cards

Players shall be randomly allocated six cards at the start of the game

rationale: the random nature of the allocation ensures for a fairer game overall.

13.2 Player cards

Player's cards should remain hidden from other players

Rationale: This is essential to the rules of the game

14. Game cards

The system shall randomly select a card of each category to place in the evidence envelope

Rationale: This is a feature of the original game rules so is therefore essential

15.1 Player notepad

Players shall have a virtual " notepad" to take notes in throughout the game

Rationale: This is a feature of the original game.

15.2 Player notepad

The virtual notepad should tick off the player's own individual cards at the beginning of play

Rationale: This ensures a lack of mistakes on the player's part

16.1 Player Guesses

Players should be able to make a guess about any card on the board, even if they hold the card in question

Rationale: This is a gameplay feature to allow a level of strategy in each player's decisions

16.2 Player's guesses

When a guess has been made, the relevant token of the suspect shall move to the location of the guess

Rationale: This is a game feature to limit each player's movement making the game more fun

16.3. Player's guesses

After a guess has been made, the game shall cycle through each player until one can disprove the previous player's guess

Rationale: This is a game feature to ensure that if a player can disprove a guess, that they have to

16.4 Player's guesses

In the event of a guess disproval, only the guesser and the one showing the card should have access to the card

Rationale: this is a game feature to ensure the playability of the game.

16.5 Player's guesses

If a player can prove/disprove a guess they shall be given the option of which relevant card to show, if they have multiple

Rationale: This makes sure a player does not show a card they are not willing to.

17.1 Player accusation

In a player's turn, they shall have the ability to make an accusation, this being a potentially game ending conclusion.

Rationale: this is a pivotal game feature of the original game.

17.2 Player accusation

In the event of the accusation being correct, the game will display to the rest of the players the contents of the evidence envelope

Rationale: this is to show that the correct accusation has been made and to end the game

17.3 Player accusation

In the event of the accusation being incorrect, only the accuser will be able to see the cards in the envelope, and as a result will be unable to participate in the rest of the game.

Rationale: this is to show that the accusation was incorrect and to ensure that an incorrect accusation has consequences.

18. Secret passages

If a player lands on a secret passage space they shall be given the option to use it on their next turn

Rationale: this is a game feature designed to add a layer of fun mystery to the game.

19.1. Action spaces

Landing on a miss turn space causes the player to miss their next turn

Rationale: this is a game feature designed to add a layer of difficulty to the game

19.2. Action spaces

Landing on a reveal card space causes the player to reveal one of their cards to all of the other players in the game.

Rationale: this is a game feature designed to add a layer of difficulty to the game

19.3. Action spaces

Landing on a disrupt players space causes all players to have their current positions disrupted to another, random location on the board.

Rationale: this is a game feature designed to add a layer of difficulty to the game

Game Board

20.Board visibility

It shall be possible to view the entire board at all times

Rationale: players need to be able to see the entire game board so they can decide on an appropriate next move

21. Board labelling

The board shall be labelled appropriately in accordance with the game board description

Rationale: if the board is labelled incorrectly the locations wont match those of the game rules making it unplayable

22. Board size
The board should be appropriately sized, with sensible sized spaces between locations
Rationale: If the spaces between each location are too big, the game will take too long to play and will then become un-fun.

Additional Features:

23. Downloading updates
Players shall have the ability to download updates to the game from online
rationale: This will allow the game to be kept fresh even long after first being installed

24. Purchasing updates
Players shall have the ability to update new game packs through an online store
rationale: This will allow the game to be kept fresh even long after first being installed

25. social media integration
Players should be able to post directly to social media from the game with pre written posts about the gameplay
Rationale. This is believed to spread the word about the game to the public in a natural way

9

NON-FUNCTIONAL REQUIREMENTS

26. Access times
The average time to making a move should be no longer than 1 seconds.
Rationale: Access times are essential for ensuring a successful uptake of the system. If the system is perceived to be too slow,players wont want to

27. Reliability
The game should be able to run efficiently with up to six players with out crashing
Rationale: this will make the game more