CECS 343 Vision Document

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1 Introduction

1.1 Purpose

The purpose of this document is to analyze and define the features required to develop the Illuminati card game. It will focus on the requirements that will create a good experience for both the stakeholders as well as the target users. The major features highlighted later in the document will provide a more detailed explanation on its purpose.

1.2 Scope

This Vision Document is made for the purpose of creating a digital representation of the Illuminati card game as a Desktop Application. This application will be developed in Java using the graphical user interface toolkit Swing as well as the software development kit JavaFx. The application will provide its users a digital means to play Illuminati.

1.3 Definitions

- Illuminati - card game developed by Steve Jackson Games.
- Java - Object oriented programming language for cross platform application development.
- Graphical User Interface (GUI) - Graphics of the game displaying all aspects of gameplay.
- JavaFx - Software development kit for creating applications with the Java programming language.
- Swing - Graphical user interface toolkit for the Java programming language.

1.4 References

We will mostly reference the main rules for the game, as provided by our instructor, as well as the documentation for both JavaFx and Swing, and the Vision Document instructions, also provided by our instructor. All of which can be found below:

- Illuminati Card Game Rules
  http://www.sjgames.com/illuminati/img/illuminati_rules.pdf
- Vision Document - IBM rational
  http://www.ibm.com/support/knowledgecenter/SSYMRC_4.0.5/com.ibm.rational.rrm.help.doc/topics/r_vision_doc.html
- JavaFx Documentation
  http://docs.oracle.com/javafx/2/api/index.html
- Java Swing API
  https://docs.oracle.com/javase/7/docs/api/javax/swing/package-summary.html

2 Stakeholders and User Descriptions

2.1 Market Demographics

The target market includes desktop computer owners that enjoy the original, physical game of Illuminati as well as new users that enjoy both card games and strategy games. Our game will attempt to stay true to the original as much as possible. Therefore, we believe that those who enjoyed the physical game will also enjoy our implementation as a desktop application.

2.2 Stakeholder Summary

Name	Description	Role
User	This stakeholder represents the player base. The user is one of the main reasons the game exists.	Buys and plays the game
Developers	Designs and implements the game as a desktop application for the users.	Creates game as a desktop application.
Client	Commissioner of the game.	Gives feedback and requirements for the design and implementation of the game.

2.3 User Summary

Name	Description	Stakeholder
New user	New users are users that have recently been introduced to our implementation of the Illuminati game as a desktop application. New users ultimately contribute most to the overall growth of the player base.	User
Experienced player	A user who has previous experience playing the physical Illuminati game. This user will be comfortable in the virtual environment of the desktop application since the rules will reflect those of the physical game.	User
Professor	Represents our client for this project as he commissioned the game. He will evaluate our performance throughout the entire creation process of this game from design through implementation and ultimately our shippable product.	Client

2.4 User Environment

We hope for the game to be played by people of all age groups. However, players will require a computer to play the application.

2.5 User Profiles

2.5.1 New User

Description	Player with no prior experience
Type	New player
Responsibilities	N/A
Success Criteria	Enjoyment of the game.
Involvement	Plays the desktop application on their machine.
Deliverables	N/A
Comments or Issues	N/A

2.5.2 Experienced Player

Description	Player with prior experience
Type	Experienced player
Responsibilities	N/A
Success Criteria	Proper implementation of the game rules, continues to play the game
Involvement	If the experienced user notices any errors in the implemented rules they can alert the developers of their concerns.
Deliverables	N/A
Comments or Issues	N/A

2.5.3 Professor

Description	Our professor, client, and consultant
Type	This user has experience in software development and project management as well as experience playing the physical Illuminati game.
Responsibilities	Gives feedback and requirements for the development of the game.
Success Criteria	Requires developers to have a well-thought-out plan and commitment to that plan
Involvement	Guides us through the development cycle of a project
Deliverables	N/A
Comments or Issues	Hopefully, we will have done a good job, so only praise

3 Product Overview

3.1 Product Perspective

The game will be self contained on the user's desktop computer. The game will require the computer to have enough disk space to download the game.

3.2 Summary of Capabilities

Customer Benefits	**Supporting Feature(s)**
Play the game digitally	Graphical user interface and our implementation of the game mechanics
Play alone	Single player that can play versus an artificially intelligent computer implemented by the developers.
Not having to clean up	Ability to save and exit the game at will.

3.3 Assumptions and Dependencies

- The user must have a computer and have the ability to download and install it on their machine
- This implementation of the game will have all text appearing in English, so the user must be able to understand written English. While not entirely necessary, a knowledge and understanding of written English will greatly ease the players experience while playing the game.

4 Major Product Features

4.1 Graphical User Interface

The game will include a Graphical User Interface (GUI) that will represent all aspects of the game as they would appear if playing the actual physical game. This includes, but is not limited to: cards, dice, and playing area. We will attempt to implement all elements of the physical game as closely as possible in our desktop application.The GUI will be implemented with the use of JavaFx and Swing, two major tools for developing graphical user interfaces for applications in the Java programming language.

4.2 Single Player

We will attempt to implement an artificially intelligent computer player that will act as if the user is playing against someone in real life. This computer player will make decisions and decide things as a player would such as:

- When to attack
- When to move money around
- End goal to win the game
- When to obtain new groups

4.3 Save Points

Since the Illuminati game takes a rather long time to fully play we will allow the user to save their game progress if they would like and in the future load any saved progress that exists on their machine. This will heavily assist the user since they will not have to sit in front of the computer longer than they want to in fear of losing their game progress.

4.4 Customize Rules

There are many areas where customization is both possible and reasonable when playing the physical game so we want to extend some of those opportunities to the user while they play our implementation of the game.

4.5 Other features

4.5.1 Application

Upon start up of the game, the user will be given the option to create a new game or load the game. The user can then play the game until they win or lose, or they can decide to save and exit the game to resume at a later time. All input will come from the users mouse and keyboard.

4.5.2 Game Mechanics

The game will follow the same mechanics as the physical Illuminati game in that the user will be able to carry out their turn, roll dice, move cards, view cards, and draw from the deck.

4.6 Feedback

If users find errors in our implementation of the original game rules they can notify the devlopers.

5 Appendix

5.1 Risks

Using a tiered risk system we will be able to evaluate and act upon different risks that come up both throughout the development of the game as well as when the game is complete. Level 1 risks can be categorized as minor bugs when the game is complete that can be easily fixed. Level 2 risks are more serious and may occur if a deadline is missed or if something takes longer than anticipated to learn during development. Level 3 risks are the most serious risks and can result from missing numerous deadlines and/or failure to complete project by final due date. We would like to avoid level 3 risks at all costs as they can be detrimental our efforts of creating the Illuminati desktop application.

5.2 Efforts

Our efforts to design and implement the game will be predicated on our hope to ultimately capture the original physical game as closely as possible. These efforts will be represented through our development of a Graphical User Interface as well as our implementation of the game mechanics that will reflect the mechanics of the original game.