**Vision Document**

Group: I

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1. **Introduction**
   1. **Purpose**: This document outlines our vision to create a digital version of the card game *Illuminati*. It explains the purpose of this project, the stakeholders and users involved in it, and its features, requirements, and constraints. With this document we can plan our game by determining our limitations under the time constraints and anticipate future problems and possible solutions.
   2. **Scope:** This document refers to a single product, a digital version of *Illuminati*. The project will be created using the Java programming language and GitHub.
   3. **References:** *Illuminati* card game
      1. Cards: <https://bbcsulb.desire2learn.com/d2l/le/content/386413/viewContent/3979198/View>
      2. Rules: <https://bbcsulb.desire2learn.com/d2l/le/content/386413/viewContent/3979199/View>
   4. **Overview**: This document explains the product’s position in the market, the stakeholders and users involved, an overview of the product and its features, the priority of each feature, the constraints of the project, and product and documentation requirements.
2. **Positioning**
   1. **Business opportunity**: Illuminati remains a successful card game to this day. By creating a digital version of this game, we can capitalize on its popularity.
   2. **Product position statement**: For any fan of card games who wishes to play one of the classics in a digital medium. *Illuminati* will have the same feel as the original card game and players will be able to play locally or with anyone with an Internet connection.
3. **Stakeholder and user descriptions**
   1. **Market Demographics**: The *Illuminati* card game is a successful card game that is still produced and sold to this day. As a new company, we have no existing reputation with the target demographic. With the launch of this product, we hope to build a solid reputation with our users so we can continue to create digital version of other card games, such as the *Illuminati* expansions.
   2. **Stakeholder Summary**
      1. **Developers**: Represents the team developing and testing the software.
      2. **End-Users**: Represents anyone who will play the game, mostly customers. End-users can provide feedback in the form of bug reports and suggestions.
   3. **User summary**
      1. **Players**: Are end-users. They are the target audience of the project, thus the game must be entertaining and simple enough to use from their standpoint
   4. **User Environment**:
      1. This game can be played by 2-8 people. However, 2 or 3 players are not recommended, also 7 or 8 players. No extra players can join when the game starts.
      2. The game time is between 1 to 6 hours depending on how the game is played.
      3. This game can be played anywhere as long as you have a laptop. And if the players want to play it with friends then internet connection is required.
      4. This game is developed for windows machines. The next platform to be developed on is IOS (MAC).
   5. **Stakeholder Profiles**
      1. **Developer**
         1. Represents the team developing and testing the software
         2. Technical background in computer science and software development
         3. Responsibilities: Gather requirements from other stakeholders, create a design that conforms to the requirements, implement the design, and test the software.
         4. Success Criteria: The software meets all requirements of the project with minimal bugs by the required deadline.
         5. Deliverables: A list of requirements, design documents, a working program, and thorough documentation.
      2. **End-Users**
         1. Represents anyone who will be playing the game.
         2. Computer expertise varies widely
         3. Responsibilities: Test the software, providing feedback on bugs and suggestions to improve the game.
         4. Success Criteria: The game is intuitive, bug-free, and fun to play
         5. Deliverables: Feedback and bug reports
   6. **User Profiles**
      1. **Players**
         1. See 3.5.2, “End-Users”
   7. **Key stakeholder or user needs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Need** | **Priority** | **Concerns** | **Current Solution** | **Proposed Solution** |
| Flexibility to play with friends online | High | Team needs to learn how to implement this | Planned implementation of local play | Implement online play after local play is finished |
|  |  |  |  |  |
|  |  |  |  |  |

* 1. **Alternatives and Competition**
     1. The physical version of the card game.
        1. Strengths: Does not require a PC or laptop. The size of the game board is not limited to the size of the screen. Communication among players is simple.
        2. Weaknesses: Must be able to meet up with other players to play. Easier to make mistakes following the rules or miscalculating income. Misplacing cards makes the game unplayable.

1. **Product Overview**
   1. The product is independent and completely self-contained
   2. **Summary of capabilities**

|  |  |
| --- | --- |
| **Customer Benefit** | **Supporting Features** |
| Ability to play with people locally or around the world. | Choice between local play on one device or online play. |
| Do not need to reference the rulebook to remember how specific rules are calculated. | All rules are enforced and calculations are done by the program. |
| Easy to find people to play with. | Friends list and the ability to search for open games. |

* 1. **Assumptions and dependencies**
     1. Windows OS, Java, and GitHub continue to be usable
  2. The product will be free to play

1. **Product Features**
   1. Play locally. Can completely replace a physical copy of the card game.
   2. Play online. Play with friends no matter where they are, they just need an Internet connection
   3. Rules will be implemented and enforced by the software, reducing the need to reference the rulebook.
   4. All calculations are done by computers, so players cannot make mistakes (or cheat)
   5. Clear, easy-to-use interface
   6. In-game communication. Involves chatting and arranging deals and trades. Thus no external communication software will be required.
   7. Player communication. Involves adding players to friends list, finding games, searching for available players, improving the social aspect of the game.
2. **Constraints**
   1. When playing locally, there is limited screen real estate, which is exacerbated by the need to hide cards from other players. The device will have to be passed around and sensitive information hidden simply if another player wishes to check his or her cards or the power structures of other players.
3. **Precedence and Priority**
   1. Procedures and priorities to implement the game
      1. Implementation of rules and calculations
      2. Interface
      3. Local play
      4. Online play
      5. In-game communication
      6. Player communication
4. **Other Product Requirements**
   1. **System Requirements**
      1. Personal computer or laptop with a Windows OS.
      2. Internet connection if played online.
      3. Minimum requirements
         1. CPU:
         2. RAM:
         3. Free disk space:
         4. Sound: Yes
         5. Java:
         6. A good internet connection
5. **Documentation Requirements**
   1. Read me file
   2. Installation guide
   3. Online help
6. **Appendix 1 - Feature Attributes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Feature** | **Benefit** | **Effort** | **Risk** | **Stability** |
| Local Play | Critical | Low | Low | Stable |
| Online Play | Important | High | Medium | Team needs a better understanding on how to implement this |
| Rules | Critical | High | Low | Stable |
| Calculations | Critical | Medium | Low | Stable |
| Interface | Critical | Medium | Low | Stable |
| Communication | Useful | Medium or High | High | Team needs a better understanding on how to implement this |
| Friends | Useful | High | High | Team needs a better understanding on how to implement this |

1. **Target Release**: May 2017.

**Project Plan**

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**Project Plan:**

The time given for this project is 3 months (12 weeks). Feb.8th - May.15th

**Intro (Feb. 1 - Feb. 8):**

Understand the game rules.

Play the game.

Think about the outline of this project.

**Vision Document (Feb. 8):**

Vision Document is an overview of the program and the purpose of it.

**Project Plan (Feb. 27th):**

This document is a project timeline and lists the deliverables due at each deadline. There is a small summary for each deliverable.

**Flowchart / UML (March. 20th)**

A flowchart and UML model of the layout and design of the project.

**Use Cases (April. 10th)**

A document detailing the possible use cases that can occur during the program’s execution.

**Test Plan (April. 10th)**

A document detailing the methods that will be used to test our code to ensure functionality and that the program meets all of the stakeholder’s requirements.

**User Manual (April. 19th)**

A reference guide for the end-users of the product that explains the rules of the game and how the rules of the physical version of the game translate to our digital version’s user interface.

**Construction Phase (April 10th - May 10th)**

This phase is the coding period. Where we start coding till the finish of the program/game. We may go back and fix some things in the previous phases (ex. Go back and fix UML). This phase is the longest, because there will be a lot of problems/errors.

**Basic Playability with Demo (May 1st)**

End-users will be able to perform basic functions in the game, such as drawing cards and playing cards, but the game’s rules will not be enforced.

**User Interface:**

**Part one “Layout” (March 15th)**

User interface layout is just the design part. Meaning how the program/game will look like.

**Part two “Validation” (April 26th)**

User interface validation is the actual working interface. So we will be able to move, draw, or put cards based on the rules.

**Rule Enforcement (May 10th)**

All of the game’s rules will be enforced by the program. At this point, the game will be playable from start to finish.

**Design:**

Break down the problem into parts

Rules issues.

Platform issues

Interface issues.

Online issues.

Distribute parts among team members

Classes:

Player:

Total of income.

Illuminati Card

Group Cards

Special Cards

Attacking()

Cards (Subclasses: Illuminati, Group, Special)

Game Attributes (Power, Resistance, Income)

Current funds

Deck:

shuffe()

Bank:

GameBoard:

Time

numberPlayers

sizeOfBoard

**Coding(4-9 week):**

Entering the cards data, then make a deck.

Create Player, Deck, gameBoard class.

game rules, Interface and rules,

Turn rules, winning, losing, actions not on turn

Connecting the devices

Interface notes:

The states shows when click on the card.