Project Plan
For
Illuminati Board Game Application

Distribution:

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Appendices:

<Appendix 1>

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1. Overview

Illuminati is a strategy board game made by Steve Jackson inspired by a book called The Illuminatus! Trilogy by Robert Anton Wilson and Robert Shea. The game consisted of secret societies completing with one another to take over the world through various actions such as legal, illegal and mystical. Players will be able to gain access to the game without the need of a physical copy. The idea of the program is to increase the availability of the product to suit a wider audience. An online platform can also ease the reliability and replay ability of the game due to human errors such as minor calculation errors or missing pieces of the game.The project is an extension of an existing board Game, later will be available via Windows platform running Java. The game will be free for all players to enjoy will providing the feedback for the team. The project will take approximately 5 weeks to complete.

1.1 Goal

The main goal for this project is to deliver a function board game available on a digital platform while increasing the accessibility of the game.

1.2 What is it and who is it for?

The product will be a digital platform of an old board game called Illuminati. The game will be available for all players ages 8 and up.

1.3 Cost/Availability

The game will be free to play for players who received the copy from the developers. The game will take approximately 5 weeks to complete including the planning phase of the game.

2. Goals and Scope

2.1 Project Goals

The Illuminati Board Game Application aims to create an accurate and function adaptation of the original Illuminati Board Game by Steve Jackson Games that is runnable on Windows and Mac OS using Java Runtime Environment. The game's functional goals can be referenced in the table below. Quality goals include the creation of software that does not crash, implements all original features of the Illuminati game, and does not contain bugs that impact the user's ability to complete a game. The organization of the development process should be clearly outlined in Team 4 Star's Vision Document for the IBGA as well as other documentation listed as references [Section 13]. The project will suffer a significant time restraint based on the nature of the six week course Team 4 Star is involved in, however, a timeline has been constructed in section 4.2 for the timely completion of the IBGA. Functional goals hold the highest priority and will be followed by quality assurance goals.

Project Goal	Priority	Comment/Description/Reference
Functional Goals:	1	Based on requirements detailed in the Vision Document [1]

Functionality	1	The game should able to run from start to finish without major bugs or crashes.
UI	2	The game should have a clear visual easily for the user to see
Business Goals:	-	Not applicable
N/A	-	Not applicable
Technological Goals:	-	Not applicable
N/A	-	Not applicable

Project Goal	**Priority**	**Comment/Description/Reference**
Quality Goals:	2	
Accuracy	1	The game should stay accurate to the original Illuminati game
Speed	2	The game should not stall for greater than 20 seconds
Constraints:	1	
Time	1	The game must be completed by the end of the course
Requirements	1	The game must meet standards held by the instructor

2.2 Project Scope

2.2.1 Included

The Illuminati Board Game Application deliverable will be a fully functional adaptation of the original Illuminati Board Game by Steve Jackson Games. This adaptation will be runnable on Windows and Mac OS using the Java Runtime Environment. The game provides local multiplayer capabilities. The IBGA will be received by the course instructor for *Introduction to Software Engineering* at California State University Long Beach and may be played by others familiar with the rules of the Illuminati Board Game ages eight and over. The deliverable will also include documents detailed below [Section 8].

2.2.2 Excluded

End users will not be taught or instructed on the rules of Illuminati.

3. Organization

Initial standards and requirements are outlined by the instructor and expanded upon in detail by the project managers. These project managers develop extensive documentation outlining all relevant information pertinent to the project [Section 8]. From these documents, game developers and UI architects will begin to work in tandem on the development of the product. This is then handed off to the product testers for demoing and may cycle back to the developers and architects if issues arise. If critical errors are found at any point in this process the previous heads, leads, and organizers from the previous step will address the discovered issues and continue to revert back through the cycle if deemed necessary. Responsibilities of the roles named have been outlined in the vision document [D1].

3.1 Organizational Boundaries and Interfaces

The IBGA will be developed by a team of students attending California State University Long Beach and enrolled in the *Introduction to Software Engineering* course during the first summer session of 2019. They will use Java Runtime Environment for the development of their project which will serve to showcase what they have learned over the duration of the course. The course instructor Anthony Giacalone is both the parent organization and the primary customer as he has assigned this project to Team 4 Star and will be judging the quality of the product upon completion. As the parent organization, Mr. Giacalone can and has outlined fundamental requirements of the application however, he cannot directly interfere with or manage the development of the application. These rights are reserved exclusively for Team 4 Star although his opinions should be taken seriously as they will likely weigh in on the grading of the product through Giacalone's role as the primary customer.

3.1.3 Resource Owners

Resource Owners are defined in the Resource Plan in section 5.1.

3.1.4 Receivers

Receivers are defined in the Delivery Plan in section 8.

3.1.5 Sub-contractors

Sub-contractors are defined in the sub-contract management in section 6.

3.1.6 Suppliers

The supplier in this case is the instructor. Throughout the week, the instructor will provide the developers with assignments and resources relating to the current project. The TA play an important role at giving weekly feedback and guidance toward the success of the project.

Company: Contact	**Deliverable**	**Comment**
Instructor	Assignments	None
TA	Feedback	None

3.1.7 Cross Functions

Function	**Party Involved**	**Responsibility/Comment**
Product Management	Project Managers, Instructor	Plan, model, and document the IBGA; Clearly state baseline requirements.
Consulting	Teaching Assistant, Instructor	Provide clarity through criticism and weekly updates.
Development	Game Developers, UI Architects	Produce a functional, accurate product outlined in the provided documentation.
Quality Assurance	Product Testers	Debug and stress test the provided application.

3.1.8 Other Projects

No other projects are under development by Team 4 Star.

3.2 Project Organization

The project will be organized to 8 different section. The first 6 are Vision doc, Project Plan, Use Cases/UML, Test Plan, Flow Chart/Diagram, User Manual all of which focuses on the design aspect of the project. The last two sections are the Basic Playability of the board game along with the Rule enforcement. Undoublity the most technical part of the project, the last two sections incorporate all aspects of the previous sections ensuring that the final product function as expected.

3.2.1 Project Manager

Role	**Organization: Team 4 Star**
Project Manager	Joseph Freedman

3.2.2 Project-internal Functions

Function	**Organization: Team 4 Star**	**Comment**
Planning and Documentation Lead	Ryen Castillo	None
UI Architect Co-Leads	Team 4 Star	None
Game Developer Co-Leads	Team 4 Star	None
Product Tester Lead	Sopheak Ko	None
Risk Management Lead	Tyler Thorin	None

3.2.3 Project Team

Organization: Team 4 Star	**Availability**	**Comment**
Instructor	T,W,Th 2:00pm-3:45pm	Needed for consultation
UI Architects	T,W,Th 4:00pm-6:40pm	May be requested to work additional hours
Game Developers	T,W,Th 4:00pm-6:40pm	May be requested to work additional hours
Product Testers	T,W,Th 4:00pm-6:40pm	May be requested to work additional hours

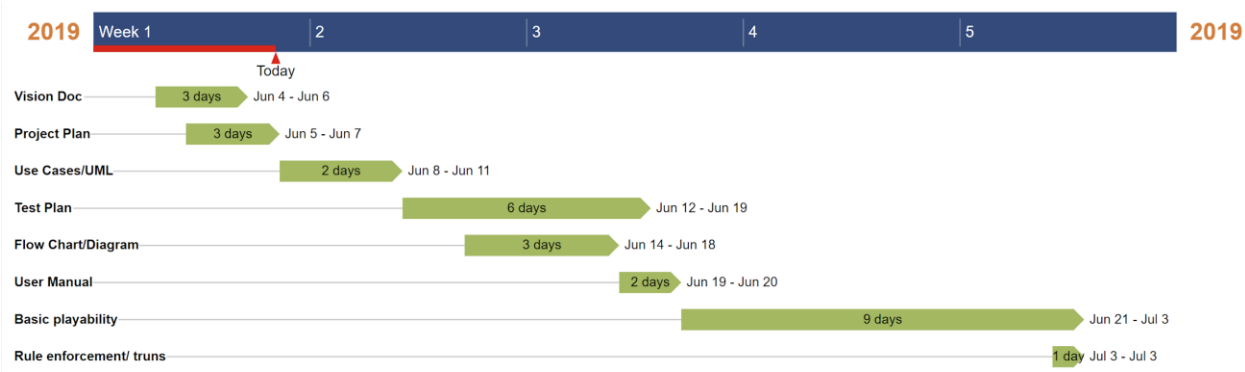
3.2.4 Steering Committee

The Steering Committee (SteCo) of the project is responsible for deciding on the priorities of the organization and managing the general course of its operations. The SteCo consists of the following members:

Organization	Name	Comment
Instructor	Anthony Giacalone	Sets baseline requirements for the IBGA
Advisor	Yash Shah	Advises project managers on priorities
Project Managers	Team 4 Star	Oversees the development of the IBGA

4. Schedule and Budget

4.1 Work Breakdown Structure



4.2 Schedule and Milestones

Milestones	Description	Milestone Criteria	Planned Date
W2	Start Project	Initial Project Documentation	<2019-06-04>
	Project Vision Documentation Project Plan Documentation	Stakeholders identified Initial. Proposal reviewed	<2019-06-07>
W3	Code Structure/Testing Planning	UML/Testing Documentation	<2019-06-11>
	Use Cases defined UML visualization	Code design elaboration QA Testing process defined	<2019-06-13>
W4	Gameplay/Rules Planning	Gameplay Documentation	<2019-06-18>
	Game Flow visualization and diagrams Testing Plan	Flow Chart/Diagrams User Manual	<2019-06-20>
W5	Start Execution	Coding Commencement	<2019-06-21>
		Requirements agreed, project plan reviewed, resources committed	<2019-06-21>
W6	Confirm Execution	Code Submission	<2019-07-03>
	Submit code and documentation for review	Basic Playability User Interface Rule Enforcement	<2019-07-03>

4.3 Budget

Not Applicable

4.4 Development Process

Development team is generally following the Adaptive Software Development(ASD) process. Our project has a mission-driven plan to implement the components and features to provide a functional implementation of the game Illuminati. Deviations have occurred in requirements gathering where documentation and planning was required to be more specific to our stakeholder's needs, specifically the instructor. The model facilitates our need to explicitly consider the risks of choosing what components and features to implement given the short timeframe to complete the project. Given such a timeframe the time-boxing of work serves to ensure features to be implemented cannot exceed our given timeframe to completion, and ensure milestones are met. Given that this project is for a class, this model supports the ASD tenet of learning throughout the process. We adopted the idea of on-going testing and documentation from the Scrum process in order to better serve our needs for more thorough documentation and planned out tests.

4.5 Development Environment

Item	Applied for	Availability by
Methods		
Use Case	Requirements capturing	W2
Tools		
Java IDE	Game Implementation	W5
4 Development Systems	Game Implementation	W5
Java Runtime Environment	Game Testing	W5
Languages		
UML	Design	W3
Java	Game Implementation	W5

4.6 Measurements Program

Further documentation of measurements available in the Test Plan [3] by the Lead Product Tester.

Type of data	Purpose	Responsible
<# changed requirements>	to assess the understanding of original project requirements	Game Development Team
<# defects found before W6>	to assess the achievement of project implementation	Product Tester
<performance data>	to assess the achievement of project requirements	Game Developer Lead Instructor

5. Risk Management

5.1 Risk Management Procedure

When risks are identified, they are recorded, evaluated, and prioritized in the Risk Management Plan managed by the Risk Management Lead. The Risk Management Plan specifies each potential risk, who is responsible for managing the risk, the probability of the risk, and the potential impact of the risk on the final project. The Risk Management Plan is updated regularly during the Steering Committee meetings and the Project Status Meetings.

The project lead for each team is responsible for managing their team's risk. They will assess their risks and prioritize the most important ones. In addition, the project leads will include mitigation and contingency measures for each risk in case the risk cannot be avoided.

The Risk Management Lead is responsible for keeping the Risk Management Plan updated and systematically re-evaluated. The Risk Management Lead will communicate with the other project leads in order to ensure that the Risk Management Plan is accurate and comprehensive.

5.2 Risk Management Plan

Risks	**Risk Manager**	**Probability**	**Impact**
Changes in Requirements	Planning and Documentation Lead	Low	Medium
Poor Documentation	Planning and Documentation Lead	Low	Low
Deviation From ASD Standards	Planning and Documentation Lead	Medium	Low
Incomplete Project Plan	Planning and Documentation Lead	Low	Low
Clunky UI	UI Architect Lead	Medium	Low
Unplayable Game	Game Developer Lead	High	High
Inaccurate Game Implementation	Game Developer Lead	Medium	Medium
Incomprehensive Testing	Product Tester Lead	Low	Low
Unplanned Risks	Risk Management Lead	Medium	Low

6. Sub-contract Management

Not Applicable

7. Communication and Reporting

Type of Communication	**Method / Tool**	**Frequency /Schedule**	**Information**	**Participants / Responsibles**

Internal Communication:				
Project Meetings	Teleconference	Weekly and on event	Project status, problems, risks, changed requirements	Project Mgr Project Team
Sharing of project data	Shared Project Server	When available	All project documentation and reports	Project Mgr(s) Project Team Members
Milestone Meetings	Teleconference	Before milestones	Project status (progress)	Project Mgr Sub-project Mgr
Final Project Meeting	Teleconference	M6	Wrap-up Experiences	Project Mgr Project Team

Type of Communication	**Method / Tool**	**Frequency /Schedule**	**Information**	**Participants / Responsibilities**
External Communication and Reporting:				
Project Report	Excel sheet	Monthly	Project status - progress - forecast - risks	Project Manager Sub-Project Managers
SteCo Meetings	Teleconference	Monthly	Project Priorities	Project Manager, SteCo

8. Delivery Plan

8.1 Deliverables and Receivers

Ident.	Deliverable	Planned Date	Receiver
D1	Doc: Vision Document	6/4/19	Instructor
D2	Doc: Project Plan	6/7/19	Instructor
D3	Doc: Use Cases/UML	6/11/19	Instructor
D4	Doc: Test Plan	6/13/19	Instructor
D5	Doc: Flow Chart/Diagram	6/18/19	Instructor
D6	Doc: User Manual	6/20/19	Instructor
D7	Code: Basic Playability	7/3/19	Instructor
D8	Code: User Interface	7/3/19	Instructor
D9	Code: Rule Enforcement	7/3/19	Instructor

9. Quality Assurance

The QA team is comprised of product testers who will ensure that the product does not deviate from design specifications. If in testing deviation is discovered, the game developers and team will be notified to correct the deviations and prevent future deviations. The QA team will perform thorough testing and analysis of the product's quality at any individual stage of development. Errors and improvements to be made will be directed to the game development team for correction or consideration.

Organizationally the QA team will review the product at specific times during project implementation. The QA team will evaluate the product at its current development stage and recognize any faults in the current stage and subsequent stages. The QA team will directly work with the game development team in group discussions, to discuss any errors or enhancements that have been identified. The QA team will ensure that the game development team has not deviated from the original design specifications.

10. Configuration and Change Management

Implementing online features of the game will require additional system, game, and security features. System features will now support user profiles that are password protected. User information will be stored in a MySQL database with encrypted password storage and the need for MySQL development tools and environment. Game features will be updated to allow users to host and join games over a local or online connection. These lobbies will use servers written in Java combined with a MySQL data storage to update each forked user in the lobby to the appropriate live gamestate. Additionally, game communication features for users to message players inside and outside of lobbies will be implemented to maintain proper gameflow and communication amongst players without the usage of external applications. These lobbies will have the option to be password protected and allow players to be invited directly to a lobby as well as be forcibly removed from the lobby by the lobby owner. Security features will prioritize in order availability, integrity, and confidentiality. Development team will expand to facilitate a network engineer to manage and maintain these online and security features. This engineer(s) will work with the product testers, game developers, and ui architect to ensure proper implementation of all related online features.

11. Security Aspects

Not Applicable

12. Abbreviations and Definitions

CCB Change Control Board
CI Configuration Item
CM Configuration Management
COTS Commercial Off The Shelf
CR Change Request
CRM Change Request Management
ID Identification, Identifier
IP Intellectual Property
QA Quality Assurance
SteCo Steering Committee
V&V Verification and Validation

13. References

[1] <1.2.> Vision Document for <Team 4 Star Illuminati>
[2] <1.0.> Use Cases/UML for <Team 4 Star Illuminati>
[3] <1.0> Test Plan for <Team 4 Star Illuminati>
[4] <1.0.> Flow Chart/Diagram for <Team 4 Star Illuminati>
[5] <1.0.> User Manual for <Team 4 Star Illuminati>

14. Revision

Rev. ind.	Page (P) Chapt. (C)	Description	Date Dept./Init.
1.0	---	original draft	6/6/19
1.1	---	Original submission	6/7/19