

Vision Document

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I. Introduction

1.1 Purpose

The purpose of this document is to record all the relevant information regarding our implementation of Diplomacy into an easy to read document that will help manage expectations while providing a clear purpose for our software.

1.2 Scope

This vision document applies only to the Seven Nation Army implementation of Diplomacy which will run on desktops. The game is being developed as part of a class assignment for CECS 475 and will be built using the Electron framework.

Seven Nation Army is a desktop application created to imitate the Diplomacy board game. A user that has never played the original board game will be able to easily pick up the game and play on any device. The idea is to provide ample gameplay documentation and hints so new players can follow along. Experienced players will feel right at home with original game mechanics, but can enjoy slight variation by playing on new maps.

1.3 Definitions, Acronyms, and Abbreviations

- **Diplomacy** - a strategy board game created by Allan B. Calhamer in 1954. The goal of Diplomacy is to control 18 supply centers, essentially conquering the map, by working with other countries to take down rivals. Diplomacy is known for its Negotiation Phase wherein players make deals to attack common targets.
- **Electron** - an open-source framework allowing for the development of desktop GUI applications using components developed for web applications.
- **Framework** - a collection of premade code providing generic functionality to ease the development of applications.
- **Gamemaster** - a neutral role in the game that is expected to be familiar with the rules and is tasked with reading orders, resolving conflicts, and making rulings.
- **NodeJS** - A runtime for Javascript applications.

1.4 References

None

1.5 Overview

The document is organized in sections which are listed in the table of contents. Each section may be divided into subsections which will answer and describe more specific questions and topics. The vision document as a whole hopes to provide an in-depth look at what our goals for this project are.

II. Positioning

2.1 Business Opportunity

Diplomacy is an exciting board game that requires game players to negotiate with one another, creating secret deals and alliances, to defeat their opponents and eventually win the game. The complex functionality of the game requires players to keep extensive records of their own, and shared information of the gameplay needs to be kept in order as well. While record-keeping is a necessary part of the game, the work of it all takes some of the fun out of the game and wastes crucial game time. Another issue revolves around the negotiations between game players that must be kept in secret. Finding a private place to discuss plans and ensuring no player is listening in is a difficult practice. We plan to eliminate these archaic issues of the game by developing a new and improved software application of the game.

Each player will play the game using his/her own device, which in turn opens up great possibility for improvement. First off, players will no longer need to stress about keeping records in order. Our application will store all personal and shared information of gameplay and present all information to each player in an efficient, convenient manner. Lastly, our application will allow players to privately message one another in order to make secret deals and alliances, ensuring the confidentiality of the players. These useful new features will elevate the game to whole new level.

2.2 Problem Statement

The problem of	game players needing to keep tedious records and negotiate privately with one another
Affects	the game players
The impact of which is	players waste time and energy recording and keeping track of gameplay information. Also, players must go to great lengths to keep secret deals private.

A successful solution would be	a software application that stores all gameplay information for the players and includes a private messaging feature in which players may negotiate in private.
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2.3 Product Statement

For	game players
Who	would like to play the board game Diplomacy, but do not enjoy all of the tedious work that it entails.
Diplomacy by Seven Nation Army	is a software application
That	brings the archaic board game into the modern age of technology, all the while maintaining the essential spirit of the game.
Unlike	currently available online versions of the game which are not user friendly by allowing users to submit illegal moves.
Our product	brings all of the fun aspects of Diplomacy while leaving behind tedious work of record-keeping. It allows players to focus on the main, exciting points of gameplay rather than the boring parts. Our application will also have functionality for private messaging among players--presenting great convenience for discussing secret alliances, and all the while ensuring the players' privacy.

III. Stakeholder and User Descriptions

3.1 Market Demographics

More than 258 million PCs were sold in 2018 with hundreds of millions sold more in previous years. Our version of Diplomacy will be built primarily for PCs and be able to take tap into the millions of users on PCs every day. Another advantage building our version of Diplomacy for the PC, other than a large customer base, is the different models of monetization we can take

advantage of. Our desktop application could implement a free to play model that will grant us a large user base to keep the game alive for a longer period of time while also still allowing us to monetize it with advertisements. Another monetization model we could implement is a standard flat purchase price that is still accessible by the majority of our demographic, but will give us a quicker return. Both of these will not be implemented in the final product given this application is designed as a class project.

The target market segment includes the young adult, more specifically the 18-29 demographic. Our version of Diplomacy is designed to be a social game and is meant to be played by a group of friends. The young adult target market also has experience and knowledge on how to operate a desktop application. Also, in the target market segment are people with an interest in classic board games. These users will be drawn in by the nostalgia and history of the board game.

3.2 Stakeholder Summary

Name	Description	Responsibilities
Project Manager	Controls the team by assigning duties to team members to complete the requirements.	Plans and assigns tasks to each team member. They also make sure the team is on track.
Requirement Engineers	Transforms the list of requirements into a working product by implementing features as a team.	Specifies the functional and non-functional requirements according to the Project Owner's demands. Implements all requirements according to the documentation.
Project Owner	The one who ordered the requirements and makes sure the final product has features that meet his original demands.	Reviewing the app to ensure the app meets the requirements originally demanded from the team.

3.3 User Summary

Name	Description	Responsibilities	Stakeholder
Young adults	Primary End user of our system	Will use the application to play with others.	Self
Board game	Primary End user of	Will use the	Self

enthusiasts	our system	application to play with others.	
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3.4 User Environment

- The target market segment (young adults) that will henceforth be referred to as players will work in a group of 7 with a minimum of 3 users needed in a group to complete the game. These users will need a certain amount of knowledge to be able to use this desktop application.
 - These users will need to know how to install a desktop application.
 - How to locate the desktop application.
- The length of time each game lasts will depend on the players
 - Each round will last 2:30 minutes
 - The game will last until a player wins.
 - Or until the players decide on a draw.

3.5 Stakeholder Profiles

Project Manager

Description	The leader of the requirement engineers who fulfills the Project Owner's demands.
Type	This is a requirement engineer with extra duties to coordinate development.
Responsibilities	Plans and assigns tasks to each team member. They also make sure the team is on track.
Success Criteria	Success is when the team members are on track and busy after every meeting.
Involvement	They coordinate when to implement every feature.
Deliverables	Gantt Chart, A focused team
Comments/Issues	None

Requirement Engineers

Description	The developers who create requirements and do tasks based on what is assigned to them by the project manager.
Type	They are the base developers who do most of

	the work.
Responsibilities	They must help write the documentation, design the requirements according to the Project Owner demands, research required technology stacks, and implement all features.
Success Criteria	Success is when every feature is fully implemented on time after they are assigned.
Involvement	They combine their implemented features into a working product for the team.
Deliverables	Fully implemented features
Comments/Issues	None

Project Owner

Description	The boss of the Project Manager who asks for a specific piece of software.
Type	This is a boss or leader type of figure.
Responsibilities	Funds the project, works with the project manager on what requirements the project should have, reviews the product to ensure the final product meets the agreed upon requirements.
Success Criteria	Success is when the product is determined by the owner to have met the requirements.
Involvement	Only involved at the beginning to agree on requirements and the end to review if the product meets the requirements.
Deliverables	Funding, project demands and acceptance of final product.
Comments/Issues	None

3.6 User Profiles

See previous sections

3.7 Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Readable code	high	Requirement engineers unable to understand each other's code.	Creating documentation	following the documentation
Intuitive interface	high	We do not want the user to get lost and give up.	None yet	Draw it out..

3.8 Alternatives and Competition

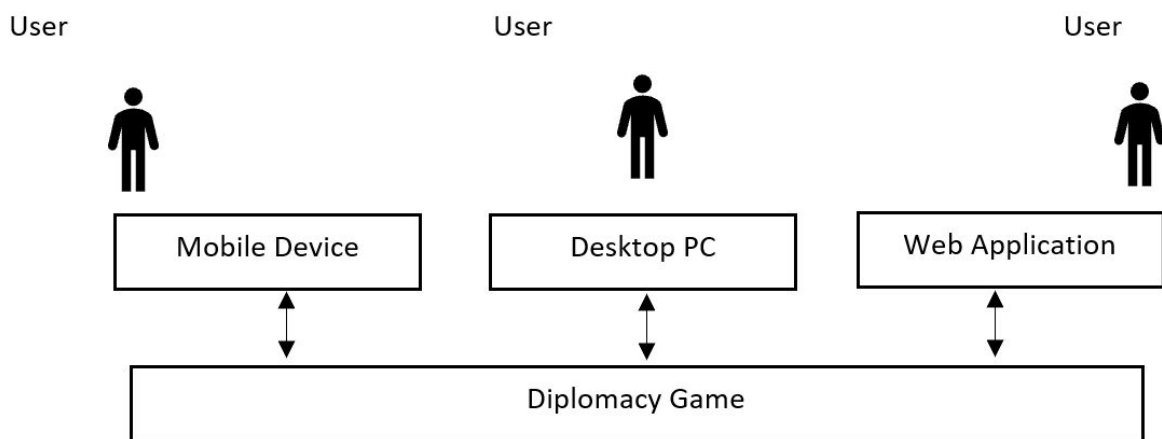
3.8.1 Backstabbr

3.8.2 Other competing Diplomacy teams

IV. Product Overview

4.1 Product Perspective

This Diplomacy game will be a standalone executable.



Overview of the Diplomacy Game system

4.2 Summary of Capabilities

Customer benefit	Supporting features
Easily communicate with fellow players and allies	A communication channel will provide chat capability between all players or a select group
Play full games faster	Game management to determine that all players are at their device to play the game
Play games on your own time	Game management to allow for timer to be set determining turn time
Play more than just the classic map	Large bank of premade maps that game master can choose from at game start
Players can play from any device	Electron framework allows for easy conversion between environments

4.3 Assumptions and Dependencies

1. It is assumed that a user trying to play on the desktop app is operating on either a Macintosh, Linux, or Windows machine.
2. In order to connect to the game, it is assumed the user has an active internet connection.
3. With regards the game language, it is assumed all players can read English.
4. To play with full features on a desktop machine, it is assumed the player has both a mouse and keyboard.

4.4 Cost and pricing

N/A

4.5 Licensing and installation

N/A

V. Product Features

5.1 Starting a game

At the start, the player will be greeted with a login screen where the user can enter their username and password, or link their Google account to easily login and play. From there, the player can choose from a list of active games they can play. This will be the first screen they see when they restart the app. Choosing a game from the list will bring them into the main game screen.

5.2 User Interface

Players will interact with the majority of the program through the main game screen. Players will be greeted with a map of the board that contains everyone's units, represented as color-coded pieces. On the bottom of the screen is a window where the player can chat with other players. Users can bring up a sidebar which show whether players have made a move. On the bottom of the sidebar, you can pull up the log of all actions made during the course of the game, it can be closed to reveal the main UI again.

5.3 Continue Game

The game will be saved for a session of up to seven players. Players can connect to the game and record game moves to be sent to the main instance, which then updates the status of the game to each player after a turn is processed successfully. Saved games will be available to select after opening the application from a cold boot (provided the user is logged in).

5.4 Communication

Players can communicate globally through a chat system. Players can create up to <group limit> groups to invite rivals into for private chat. Players can also whisper to each other, either by prepending the message with the string `/w` or bringing up the context menu on an opponent's piece and selecting Whisper. (You can also invite a player into the group from this context menu).

VI. Constraints

This project is constrained to the length of CSULB's spring semester. It must be completed in its entirety by May 9th, 2019.

The majority of the coding done for this project will be done on laptops and with low performance machines.

The project must be completed using NodeJS and Electron.

VII. Quality Ranges

7.1 Performance

Minimal bugs and crashes
Minimal lag between user input and system response
Consistent game state between players in the same game

7.2 Robustness

Will check user input to verify the validity of the move

7.3 Fault tolerance

Electron will be the framework that Seven Nation Army is built on. A framework will make it easier to debug and build new features for the game.
Furthermore, our game will not allow illegal moves to be finalized. Once an illegal move is registered; it will immediately cancel the action and notify the user it was illegal and why it is illegal. This will make it so that players can not only learn the game mechanics easier, but also prevent those moments where they cannot waste moves.

7.4 Usability

Easy to learn with only legal moves allowed to be submitted.
Intuitive UI
Fast to join with email link

VIII. Precedence and Priority

PROJECT GOAL	PRIORITY
Playable with original Diplomacy mechanics	1
Play on maps other than the original	3
Realtime chat between players	2
Get published to app store	5
<1 sec chat delay	2
<100 mb executable	1

No unexpected crashes or errors due to gameplay	1
Must run desktop app on Mac or Windows machine	1

IX. Other Product Requirements

9.1 Applicable Standards

None

9.2 System Requirements

Our project is built using Electron which has limited support. Therefore our project requires a system to be running:

- macOS 10.10 or later (x64 only)
- Windows 7 or later (x86 or x64)
- Linux - Ubuntu 12.04 and newer are guaranteed to work

X. Documentation Requirements

10.1 User Manual

A short user manual will be provided with the application. Please see the User manual document for more information.