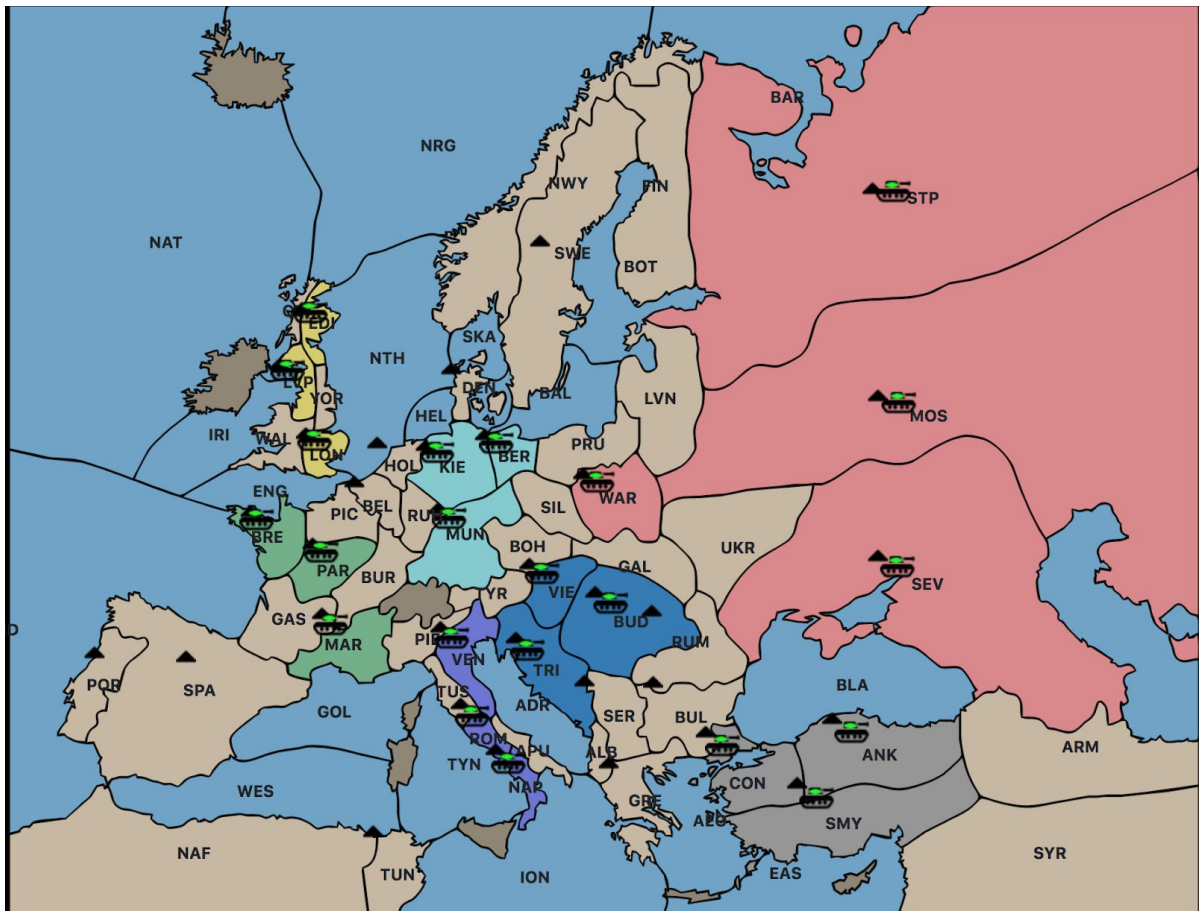


Diplomacy

Vision Document



Project Development Team:

Ahmed Arbi
Steven Duong
Benson Gao
Eleazar (Eli) Gomez
Michael Scheid
Justin Terry
Vincent Tran

Revision History

Date	Version	Description	Author
2/28/2019	1.0	Initial draft.	Lead: Steven Duong Supporting: All
5/02/2019	1.1	Updated document to reflect the current status and fixed minor errors.	Michael Scheid

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1. Introduction

1.1. Purpose

The purpose of this Vision Document is to outline the creation and implementation of the game Diplomacy from its physical form into a digital representation.

1.2. Scope

This vision document project will outline the goals and structure of the Diplomacy project. This project relies heavily on the open-source Electron Framework along with Google's Firebase.

1.3. Definition, acronyms, and abbreviations

Acronym or Abbreviation	Definition
Movement abbreviations	See User Manual
UC-xx	Use Case with xx indicating the case number
UI-xx	User Interface element with xx indicating the element number
TC-xx	Test Case with xx indicating the case number
FC-xx	Flow Chart with xx indicating the chart number

1.4. References

- 1.4.1. Diplomacy physical [game](#)
- 1.4.2. Diplomacy Online game: <https://www.backstabbr.com/>
- 1.4.3. Diplomacy [Wikipedia](#)

1.5. Overview

This document will open with an overview of the business, stakeholder, and users. The product description and requirements are outlined. The vision document closes with a brief description of the documentation requirements.

2. Positioning

2.1. Business Opportunity

This game has the potential to reach old and new generations of players. Older generations will be able to experience a traditional board game with players worldwide while newer generations can experience a more traditional game with more elaborate rules and regulations on a modern platform. As this is an online implementation of an existing board game, there are no research and development costs for the publishers. The implementation of the game will use common existing technology and focuses on cross platform deployment. This means the overall cost of the game will be kept low while addressing a large user base.

2.2. Problem Statement

Traditional board games have not kept up with the digital age when it comes to attracting more modern users. Companies holding the intellectual properties of these games are not fully utilizing their assets. The primary goals of a traditional board game is providing in-person interaction, utilizing a sense of community, and cooperation. These goals are what provide enjoyment for the users, but it also restricts the user base.

Traditional board games typically require a large and continuous time commitment to fully enjoy the experience. Today's connected society can enable additional users to enjoy time-tested classic board game through multiple mobile and non-mobile platforms. By allowing users to enjoy these classic games on their own time, we can increase the users base as well as the frequency of play.

2.3. Product Position Statement

By implementing an existing board game into a digital and web form, the copyright holder can save R&D money on new games, fully utilizing their existing assets, and gain access to a much wider and undeveloped user base.

3. Stakeholder and user descriptions

3.1. Market Demographics

Diplomacy will be for all players age 14 or older with access to a modern and compatible Personal Computer with internet access.

As the game will take place on the internet, the rating of the game will change due to user interaction. While the age requirement for the game is 14, we will require minors to have parental permission to sign up and play the game.

3.2. Stakeholder Summary

- 3.2.1. (Software Engineer-Frontend/UX) Steven Duong - 14%
- 3.2.2. (Software Engineer-Database/Frontend) Ahmed Arbi - 14%
- 3.2.3. (Software Engineer-Frontend/UX) Benson Gao - 14%
- 3.2.4. (Test Engineer) Eli Gomez - 14%
- 3.2.5. (Test Engineer) Justin Terry - 14%
- 3.2.6. (Project Manager / Software Engineer) Michael Scheid - 14%
- 3.2.7. (Project Manager Assistant / Software Engineer) Vincent Tran - 14%
- 3.2.8. (Advisor) Professor Anthony Giacalone - 2%

3.3. User Summary

- 3.3.1. Players: Diplomacy requires 7 players to fully utilize the full experience of the game.
- 3.3.2. The game is restricted to age of 14 or older or with parental consent.
- 3.3.3. Individual license of software game.

3.4. User Environment

- 3.4.1. Diplomacy is a turn based game, users can potentially play wherever they have access to the internet. While the primary platform for Diplomacy will be Windows, Linux, and mac desktops.

4. Product Overview

4.1. Product Perspective

Diplomacy is a game designed for 7 players. Each players represents a country-state in pre World War I Europe and operates independently or in concurrent with other players to achieve the end game goal. Players will interact with other players through a centralized database hosted by Firebase.

4.2. Summary of capabilities

- 4.2.1. Entire game is hosted by Firebase and allow players to access their game 24/7.
- 4.2.2. The game is based on an existing and well defined board game.
- 4.2.3. The game can be customized by each group and follow user generated rules and regulations.

4.3. Assumptions and dependencies

- 4.3.1. Mobile or desktop Web Browser
- 4.3.2. Mouse, keyboard, or touch interface.
- 4.3.3. Display Monitor.

4.4. Cost and pricing

- 4.4.1. Low overhead cost due to digital distribution.
- 4.4.2. The game will be free to play for all players. Game server will collect anonymous user data for tailored advertisement.
- 4.4.3. Microtransaction will be included for cosmetic and nongame altering upgrades.

4.5. Licensing and installation

User creates an account online to register and start playing the game.

5. Product Features

5.1. Features

Game will include the original rules and regulation of the board game. Players will have the option to establish additional constraints or waive existing rules to further define their playing experience.

5.2. Game Assets

The server will generate a map of Europe as the theater of play. Game assets including pieces representing supply depot, army, and fleet will be generated as the game progresses.

5.3. Players

Seven players required for the full experience, players can initiate the game with less than seven players without restrictions.

5.4. User Interface

- 5.4.1. Friendly and intuitive graphical user interface.
- 5.4.2. Example: User will be able to directly interact with the world map.
- 5.4.3. Example: User's total resource will be displayed to themselves as well as any publicly disclosed information from other players.

6. Constraints

- 6.1.** The game requires 7 players for the best user experience. A game with less than 7 players will be supported, but not recommended.
- 6.2.** The players will require an active internet connection to experience the game. Users will not have access to any game assets, including game history & game status, offline.

7. Quality ranges

- 7.1.** This program will have a very low system requirement. It should run on most hardware as long as a modern browser: Chrome, Edge, Firefox are supported.
- 7.2.** Online server will have a minimum uptime of 20 hours a day with the goal of having a 24 hour uptime.
- 7.3.** While each individual game will have up to 7 players, the server will be hosted using Amazon Web Service with the goal of the server space growing with the increase user base.

8. Precedence and Priority

- 8.1.** Priority will focus on usability. Features only be added if it is deemed necessary for playability. The initial phase will only support the built in rules for the game. Future release will support customized game as well as additional features.

8.2. Priority Feature Table

Priority	Functional Requirements	Non-Functional Requirements
High	<ul style="list-style-type: none">• FN-01 to FN-06• FN-09 to FN-12• FN-14 to FN-17	<ul style="list-style-type: none">• NFN-01 to NFN-03• NFN-05• NFN-08
Medium-High	<ul style="list-style-type: none">• FN-07 to FN-08	<ul style="list-style-type: none">• NFN-04
Medium-Low	<ul style="list-style-type: none">• FN-18 to FN-20	<ul style="list-style-type: none">• NFN-06 to NFN-07
Low		<ul style="list-style-type: none">• NFN-09

**See the next two section for the requirement details

9. Product requirements

9.1. Functional Requirements

ID	Name	Description
FN-01	Sign-up	<ul style="list-style-type: none">• User must have the ability to register to the game with a unique identifier and a secure password.
FN-02	Login	<ul style="list-style-type: none">• User must have the ability to login in with a unique identifier and a secure password.
FN-03	Logout	<ul style="list-style-type: none">• User must have the ability to log out of the game and have information relevant to the game saved.
FN-04	Start Game	<ul style="list-style-type: none">• User must have the ability to start a new game.• User my select start game.• User my add desired member to the game.
FN-05	Accept Game	<ul style="list-style-type: none">• User must have the ability to accept/deny a game invitation.• User may select accept game invitation icon and enter a game.
FN-06	Resume Game	<ul style="list-style-type: none">• User must be able to resume a game which he or she accepted.• User may select resume game icon and reenter the game.
FN-07	Public Chat	<ul style="list-style-type: none">• User must have the ability to have live group chat with all other users.• User must be able to initiate and respond to messages.
FN-08	Private Chat	<ul style="list-style-type: none">• The user must have ability to have live private chats.• User must be able to initiate and respond to messages.
FN-09	Move	<ul style="list-style-type: none">• User must have the ability to move an army/fleet from one location to another location.
FN-10	Hold	<ul style="list-style-type: none">• User must have the ability to keep an army/fleet at a location.

FN-11	Convoy	<ul style="list-style-type: none"> User must have the ability to use a fleet to move an army.
FN-12	Support	<ul style="list-style-type: none"> User must have the ability to provide support to an moving army.
FN-13	Delete Order	<ul style="list-style-type: none"> User must have the ability to delete an order if a resolution has not occurred.
FN-14	Submit Order	<ul style="list-style-type: none"> User must have the ability to submit an order.
FN-15	Retreat/Disband	<ul style="list-style-type: none"> User must be able to appropriately respond to an end of a round.
FN-16	Build new Army/Fleet	<ul style="list-style-type: none"> User must have the ability to create a new army when the game rule apply
FN-17	Leave Session	<ul style="list-style-type: none"> User must have the ability to leave a game session and have all game play information save upon exit.
FN-18	Withdraw	<ul style="list-style-type: none"> User must have the ability to voluntarily disband the game.
FN-19	Offer Draw	<ul style="list-style-type: none"> User must have the ability to send all players a request to draw a game.
FN-20	Respond to Draw Offer	<ul style="list-style-type: none"> User must have the ability to accept or decline a draw game request from another player.

9.2. Non-Functional Requirements

ID	Name	Description
NFN-01	Assignment Development Requirements	<ul style="list-style-type: none"> Game must be implemented with HTML, CSS and JavaScript. Development Framework must be Electron
NFN-02	Platform	<ul style="list-style-type: none"> The game will be developed as a desktop application. System must work on Windows 10, MacOS 10.12/10.14 and Linux (add target flavor/version)

NFN-03	Hardware	<ul style="list-style-type: none"> User must have the ability to log out of the game and have information relevant to the game saved.
NFN-04	User Interface	<ul style="list-style-type: none"> UI should be simple, and intuitive. All common screen resolution should be supported.
NFN-05	Players	<ul style="list-style-type: none"> The game must support 7 concurrent players.
NFN-06	Response Time	<ul style="list-style-type: none"> The system should respond to common user actions with minor delay. For uncommon user actions, a larger delay is acceptable if the user is shown an indicator. <2 secs: no indicator 2–5 secs: busy indicator >5 secs: progress indicator
NFN-07	Error Handling	<ul style="list-style-type: none"> The system should catch common errors and resolve them.
NFN-08	Documentation	<ul style="list-style-type: none"> As specified in the project requirements, the initial versions of the documentation will be completed by Feb. 28, 2019. The documentation shall be updated for the duration of the project.
NFN-09	Secondary Language Support	<ul style="list-style-type: none"> The UI should support other languages.

10. Documentation Requirement

10.1. Release notes, readme file

- 10.1.1. Readme: includes basic information such as system requirements and programmer's name.
- 10.1.2. Release note: version and release notes.

10.2. Online Help

- 10.2.1. Diplomacy wikipedia

10.3. Installation guide

- 10.3.1. Players will be required to create a free account online to participate.

10.4. Labeling and packaging

- 10.4.1. Welcome Screen with Login and Account Creation option
- 10.4.2. Help system that will direct player to the game rules.
- 10.4.3. GUI dialog boxes that will control the flow of the game and direct the players on the next move.