Project Plan for Seven Nation Army

1. Overview

This project aims to make an online Diplomacy game that is a better alternative to what is currently available. We hope to provide players with a play experience that keeps the spirit of the board game alive while bringing it into the modern age.

This game is being developed as a CECS 475 project and built in part using the Electron Framework and we expect to deliver the final product by the end of May 2019

Our game targets people who were familiar with the classic board game and now wish to play on a modern device. We also hope to bring in new players who otherwise would not have played the original game.

2. Goals and Scope

2.1. Project Scope

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.

2.2. Project Goals

PROJECT GOAL	PRIORITY	NOTE/DESCRIPTION
Functional Goals:		
Playable with original Diplomacy mechanics	1	Implement original game mechanics to application
Play on maps other than the original	3	Add additional maps
Realtime chat between players	2	Implement public, private, and group chats
Business Goals:		
Get published to app store	4	

Technological Goals:		
<1 sec chat delay	2	
<100 mb executable	1	Including DLC
Quality Goals:		
No unexpected crashes or errors due to gameplay	1	
Constraints:		
Must run desktop app on Mac or Windows machine	1	Must have mouse and keyboard for full functionality
Must run mobile app on Iphone or Android	5	

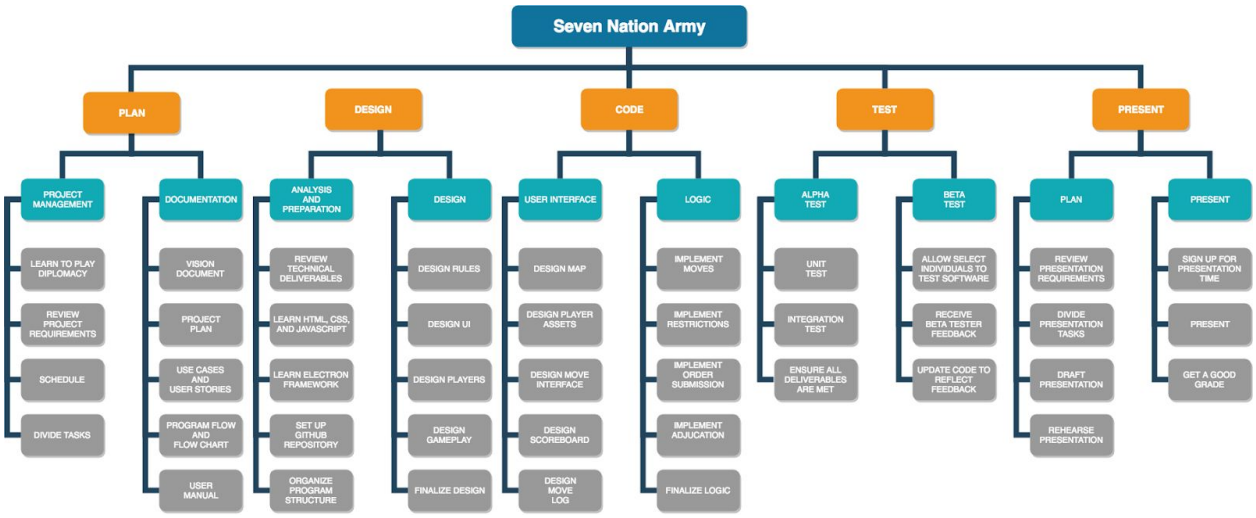
3. Organization

3.1. Organizational Boundaries and Interfaces

3.2. Project Organization

4. Schedule and Budget

4.1. Work Breakdown Structure



(this will probably be a full page in our final document)

4.2. Schedule and Milestones

Milestones	Description	Milestone Criteria	Planned Date
M0	Planning Phase	Project requirements have been gathered. Documentation is complete.	2/28/19
M1	Design Phase	Program structure is organized. Rules of gameplay have been finalized. User Interface has been drawn out.	3/5/19
M2	Begin Prototype Development	Basic functionality of prototype has been agreed upon.	3/5/19

M3	Complete Prototype Development	Functional prototype of game.	3/14/19
M4	Begin Development of Final Product	Gained experience and knowledge from prototype. Reviewed project documents.	3/14/19
M5	Complete Development of Final Product	Fully functional final product that meets all requirements.	5/09/19
M6	Product Presentation	Slide presentation describing product and its features. Group has prepared to demo the product.	5/09/19

4.3. Development Process

For our group, we will adopt the scrum workflow. In principal, this involves constant communication between stakeholders and developers and short, iterative sprints of productions. During these sprints, we shall create a backlog of outstanding issues that must be resolved within a certain time-frame (e.g., a few weeks up to a month). A big motivator in adopting this pattern is to keep team members informed about the current state of the project while involving them and rewarding their work.

We will track issues that deal with use cases for our project. Team members are encouraged to assign themselves to issues that are created to solve a use case. Each of these issues should get their own branches forked by those people from the master branch. When a user resolves an issue and it results in the continued operation of the program, it should be submitted to Github via a pull-request. Other team members should review this change before it is merged into the master branch. Upon an issue resolved, other developers shall update their branches to reflect the new changes. Upon the end of the sprint, all changes should be reviewed in the master branch and discussions are had about the work completed, the work not completed, what should be done next time, and what issues are due to be completed in the next sprint.

The goal of these continuous commits should be to produce running, testable code, with the sprints producing milestone features.

4.4. Development Environment

Item	Applied for	Availability by
Methods		
Use Cases	Planning Phase	M0
Flow Charts	Design Phase	M1
Competitor Demos	Planning Phase	M0
Tools		
Visual Studio Code	Code Editing	M2
Electron	Deployment to Desktop	M2
React	Frontend	M2
Firebase	Backend	M2
Languages		
Javascript/Typescript	UI Components/Underlying Logic	M2
HTML	UI Layout	M3
CSS	UI Styles	M3

4.5. Measurements Program

Types of Data	Criteria	Responsible
# of commits to repository	To help measure the output of team members.	All Team Members
Amount of information added to documentation	To help describe the layout of the system.	All Team Members

5. Risk management

Major Risks we have determined for this software are as follows:

- Incomplete features
- Significant deviations from the original plan late in development.
- Poor communication/collaboration results in time loss
- Issues using NodeJS and NPM modules
- Issues involving state and specific cross-platform configurations.

Risk Table

Risk	Probability	Impact
Incomplete features	70%	1
Significant deviations from the original project plan	70%	1
Poor communication/collaboration results in time loss	90%	3
Issues using NodeJS and NPM modules	10%	1
Issues involving state and specific cross-platform configurations	10%	4

6. Communication and Reporting

Communication Type	**Communication Method**	**Frequency**	**Information**	**Participants**
Group Meeting	In person	Tuesdays & Thursdays	Project Status & Documentation	All Team Members
Questions and Information	Discord	As needed	Problems, general info, resources	All Team Members

Todo Lists	Trello	As needed	Categorized by outstanding issues	All Team Members

7. Delivery Plan

7.1. List of deliverables

1. Documentation
    a. Vision Document
        i. Due: 2/28/19
    b. Project Plan
        i. Due: 2/28/19
    c. Use Case
        i. Due: 2/28/19
    d. Test Plan
        i. DUe: 2/28/19
    e. Program Flow Chart
        i. Due: 2/28/19
    f. User Manual
        i. Due: 2/28/19
2. Prototype
    a. Due: 3/14/19
3. Completed Project
    a. Due: 5/09/19
4. Final Presentation
    a. 5/09/19

8. Quality Assurance

Scope and Intent of SQA Activities

The focus of Software Configuration Management is to ensure any changes made are reflected in the documentation and agreed upon in the group.