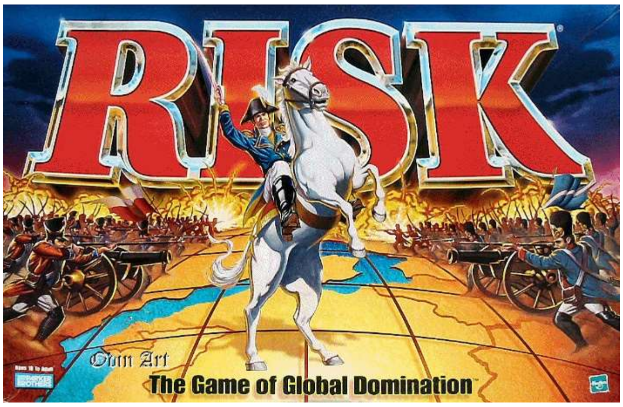
WORLD CONQUEST SPRINT II DESIGN DOCUMET

A Design Document for the Game ‘World Conquest’ for Raffle Games



FEBRUARY 8, 2024
TEAM ONE
University of Sussex

Contents

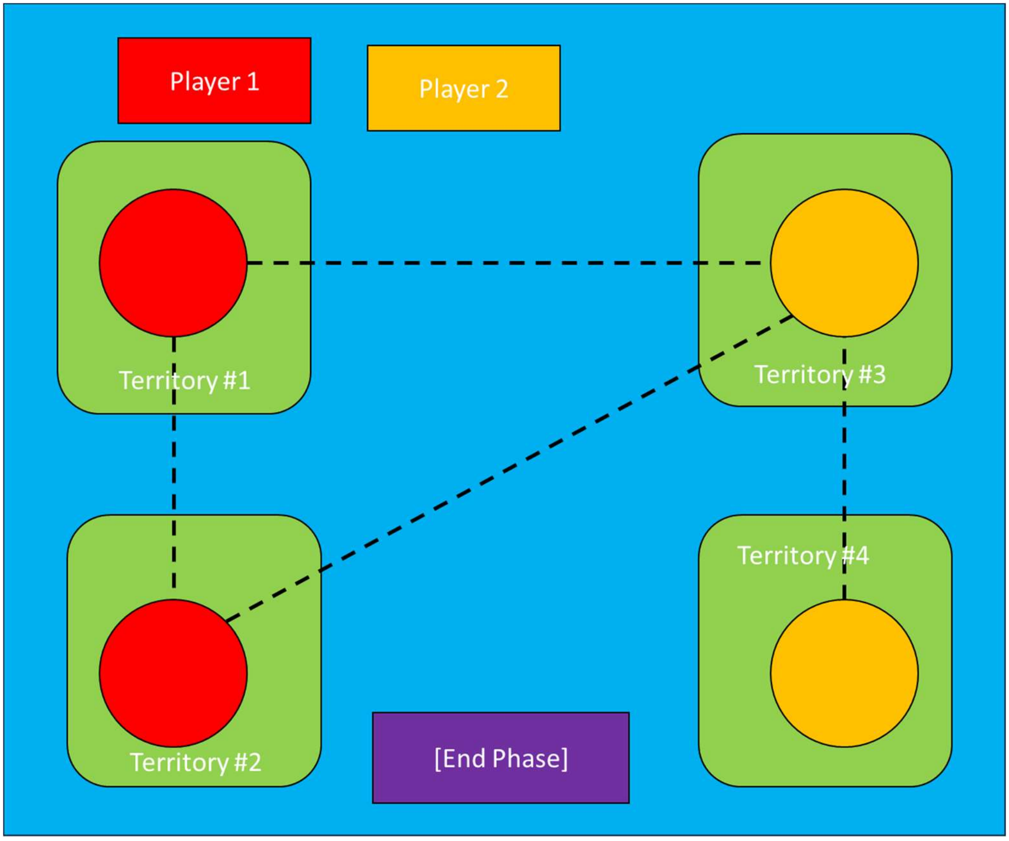
Sprint II

Design Objectives

For this sprint, our implementation aims are:

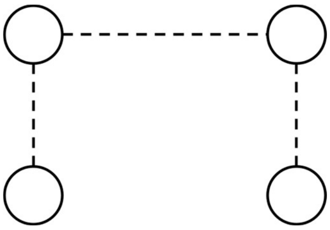
- Be able to deploy troops on a players turn
- Attack implementation with dice
- A total of 4 territories
- 2 players
- 5 troops per territory
- Territories can be conquered by another player (colour of node will change to opponent player)
- Player 1 is no longer the default winner (extension from sprint I
- Territories display their name
- Country selected with mouse

UI Design

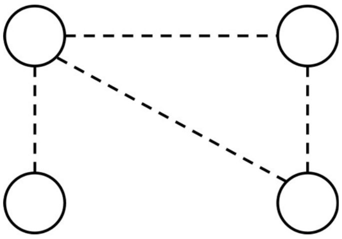


There are a variety of node connections that can be chosen when creating the map – this was one of a variety that I thought would be good for this sprint, but there is also:

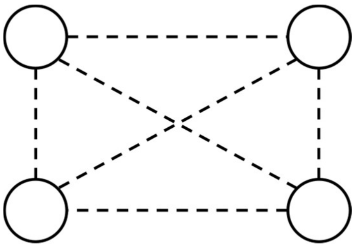
Map #1: Nodes have a connection 1 or 2 – it is a simpler implementation and it allows



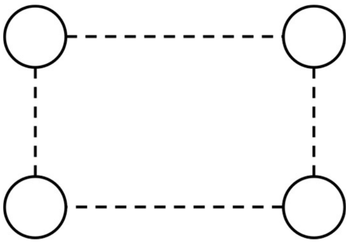
Map #2: Nodes have a connection of 1, 2 or 3 – This graph layout has a lobsided design where it is not symmetrical - which gives an advantage or disadvantage to players depending on what territories they hold



Map #3: All nodes have a connection of 3 – this is the most even graph layout – each node has the name number of connections so the difference between one territory or another is virtually negligible.



Map #4: All nodes have a connection of 2 – this has the same uniformity as map #3 but it has the has the added advantage of being a lot simpler in implementations.

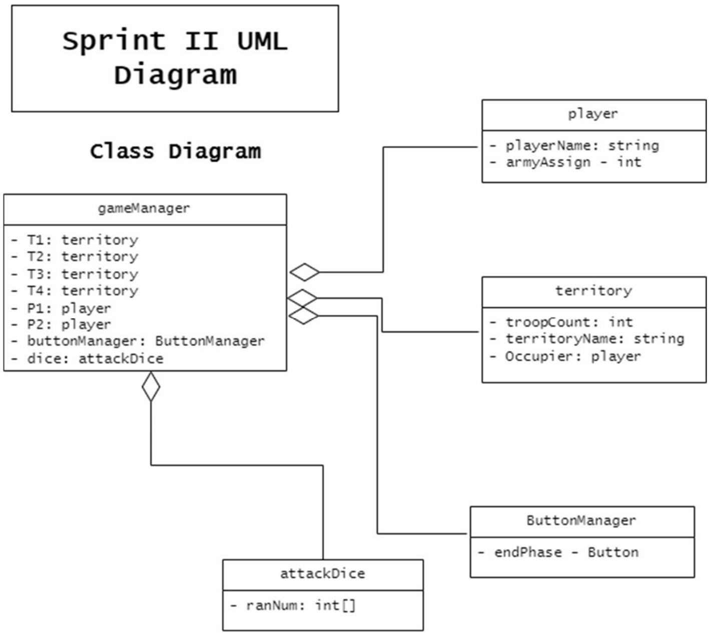


Class table

Class No.	Class Name	Attributes	Comments
1	player	• playerName: string • armyAssign - int	Player class, contains the player information as in Sprint I
2	territory	• troopCount: int • terrirotyName: string • Occupier: player	Terrorizes are able to occupied by different players depending on the outcome of player attacks
3	ButtonManager	• End_phase: Button	The Button should only end the phases that the player is in (such as in the event a player wants to end their attack phase prematurely)
4	GameManager	• T1: territory • T2: territory • T3: territory	The gameManager holds all the game object information as it is an

		• T4: territory • P1: player • P2 player • buttonManager: ButtonManager • dice: attackDice	implementation of the classes above
5	attackDice	• ranNum: int[]	The Dice class should determine if the player has won or lose a battle by return the outcome of random numbers generated

UML Diagrams



Skeleton Code

Conclusion

The conclusion of this sprint to come out with a prototype with something akin

References

Parker Brothers, 1993. *RISK - The World Conquest Game,* Beverly: Tonka Corporation.