Requirements and Analysis Document for Project Warborn (RAD)

Contents

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1 Introduction

The project Warborn is role playing game based on the the classic board game Risk but with the twist of being able to choose a God. The God system will be combined with spells that will make the game turn into a more of a fantasy game instead of the classic Risk story. The spells that Warborn will contain will create unique playing styles that will add more tactics to the gameplay.

1.1 Purpose of application

The goal of this project is to create a turn based strategy game based on the classic RISK, developed by Parker Brothers with slight modifications such as swappable maps and “gods” for simulating role play.

1.2 General characteristics of application

The application will be a desktop, standalone (non-networked), multi-player application with a graphical user interface for the Windows/Mac/Linux platforms.

The game will work with the same basic functionalities as the board game RISK, being a turn based strategy game with the goal of conquering the map by controlling all the territories. Each turn will consist of three phases:
Reinforcements, Battle, Troop movement.
There will be no time limit to a turn. The winner is the one who successfully conquers the whole map or, if the game is cancelled, the one with the most territories. In the event of a draw, the number of troops are counted. Further winning conditions might be added to, if desirable, substitute the standard ones.

1.3 Scope of application

The application does not include a computer-player. It's impossible to play the game alone (a person can of course choose to play against herself). The application does not save interrupted games or collect any statistics (high score or other). See Possible future directions.

1.4 Objectives and success criteria of the project

1. It should be possible to play a full (covering most of the rules using Parker Brother's social instructions) multi-player game (see Definitions) on any of the platforms using a simple graphical user interface.

2. The game should be possible to play for at least two different locations (sets of regions etc. example: Gothenburg and Stockholm)

1.5 Definitions, acronyms and abbreviations

All definitions and terms regarding the core Risk game are as defined in the references section.

- GUI, graphical user interface.
- Java, platform independent programming language.
- JRE, the Java Run time Environment. Additional software needed to run an Java application.
- Multi-player Game, a game in which multiple participant are active.
- Host, a computer where the game will run.
- Round, one complete game ending in a winner or possible canceled.
- Turn, the turn for each player. The player can only act during his or her turn (place units, attack, move, cast spells etc.). Thou, the player can be affected during other players turns (i.e. get attacked by active player, become the target of a spell etc.)
- Territories, a fixed location on the map, it can be controlled by only one player at any given time.

2 Requirements

2.1 Functional requirements

The players should be able to;

1. Select the location for the game (Stockholm, Gothenburg, etc.)
2. Start a new game.
    a. Select number of players and respective names and colours.
3. Do a turn. During the turn, he or she can
    a. Place extra numbers of units onto the map.
    b. Attack other players territories to conquer them
    c. Relocate currently placed units to other territories.
    d. End the turn.
4. Watch Credits.
5. Exit the application. Will end turn, round and game.

2.2 Non-Functional Requirements

2.2.1 Usability

The usability is not a major concern when the application is aimed towards a very IT-oriented audience so the need for user friendliness is diminished. This does not mean that the usability is unimportant but the focus of our efforts will be heavier on the functionalities and structure of the code.

2.2.2 Reliability

Very basic reliability, consisting of minimising the number of crashes.

2.2.3 Performance

Any command from a user should not take longer than one second to perform (except for launching the game), worst case.

2.2.4 Supportability

The application should be constructed in accordance with the Model-View-Controller pattern

and should be structured in a way so that any part is easily replaceable with a modified version. Furthermore, the Gui should be adaptable to a smartphone version using a server-client relationship for slow paced multiplayer gaming.

2.2.5 Implementation

The application will be a Java application and all platforms will need JRE 1.7 or later to run it.

2.2.6 Packaging and installation

//TODO complete

2.2.7 Legal

N/A

2.3 Application models

2.3.1 Use case model

See APPENDIX for UML diagram and textual descriptions.

2.3.2 Use Cases Priority

1. Move
2. Battle
3. Place troops
4. Use Souls
5. Show credits

2.3.3 Domain model

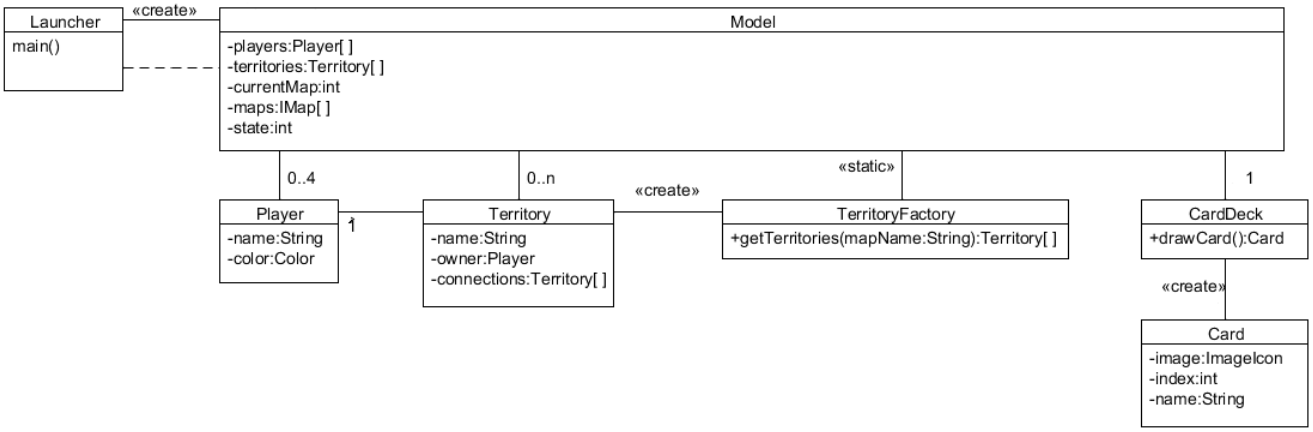
see APPENDIX.

2.3.4 User Interface

Application will use a simple GUI consisting of a different background image depending on which map is chosen and a matching overlay of buttons. It will also have a small HUD at the bottom of the screen displaying various statuses of interest to the player, along with buttons to navigate through the game and access more functionality.

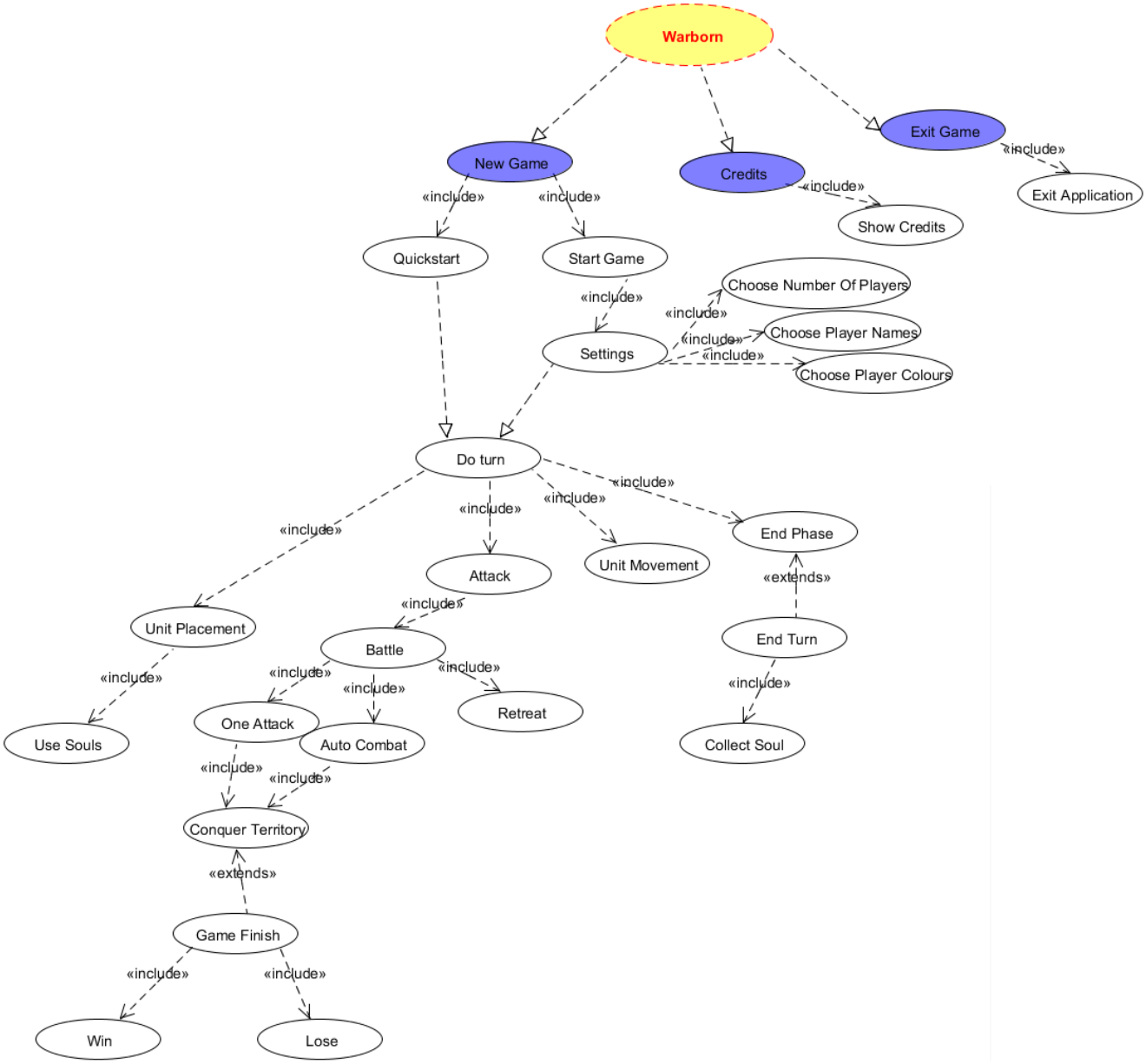
APPENDIXD

Domain
Model


Launcher
main()
«create»
Model
-players:Player[ ]
-territories:Territory[ ]
-currentMap:int
-maps:IMap[ ]
-state:int
0..4
0..n
«static»
1
Player
-name:String
-color:Color
1
Territory
-name:String
-owner:Player
-connections:Territory[ ]
«create»
TerritoryFactory
+getTerritories(mapName:String):Territory[ ]
CardDeck
+drawCard():Card
«create»
Card
-image:ImageIcon
-index:int
-name:String

Use

Cases


Warborn
New Game
Credits
Exit Game
Exit Application
Show Credits
Quickstart
Start Game
Settings
Choose Number Of Players
Choose Player Names
Choose Player Colours
Do turn
End Phase
Unit Movement
Attack
Unit Placement
Battle
End Turn
Use Souls
One Attack
Auto Combat
Retreat
Collect Soul
Conquer Territory
Game Finish
Win
Lose
«include»
«extends»