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Arcomage

Planning and Documentation

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# Summary

## Introduction

Arcomage is a card-based minigame found in Might & Magic VII and VIII. This version will be heavily based on the M&M VII version, using the same card/resource types and descriptions. The graphics will be inspired by the original minigame but will be re-designed for higher resolution displays. Lacking a competent designer, the images will be sourced from the internet, with proper citation included in this document. This game will be built to be installed and played locally. In the future, online availability may be considered. For now, a simple AI will be used for the enemy, with support for 2 players planned for future releases.

## How To Play

Arcomage is a 2-player card game. Each player has their own deck, as well as a tower, wall, and set of 3 resources. The goal is to either get your tower to a certain height, reduce the enemy’s tower to 0, or accumulate a specific amount of a resource. Exact win conditions depend on the scenario chosen.

The tower is protected by the wall. Reducing the wall to 0 means damage goes directly to the tower instead. Some cards can bypass the wall entirely, but they usually cost more. If a player’s tower is reduced to 0, they lose the game.

Blue cards typically increase the tower and cost gems. Red cards cost bricks and usually build up the wall. Green cards cost beasts and normally do damage to the enemy.

The resources each have 2 components, the spendable resource and the controlling resource. For each type, the controlling resource determines how many spendable resources are gained each turn. Magic determines how many gems are gained each turn, quarry controls bricks, and zoo controls beasts.

## Technologies Used

The game will be programmed in Java using IntelliJ IDEA. Spring Boot will be used to reduce boilerplate code, and JUnit will be used for unit testing. A GitHub repository will be used both to make the code available online and to track changes.

# User Stories

As a player I want to see my “hand” so I can choose which card to play.

As a player, I want my “deck” to be visible to reinforce the idea of playing a card game.

As a player, I want to be able to choose which “tavern” (set of start/win/lose conditions) I can play.

As a player, I want the card I choose to play have animation to enhance the gaming experience.

As a player, I want there to be a win or lose message displayed after the game that allows me to choose whether to play again, exit, or choose another tavern.

As a player, I want a computer enemy to play against.

As a player, I want to be able to play against friends online.

As a player, I want my wins and losses tracked.

As a player, I want my resources, wall, and tower to be clearly displayed so I can strategize.

As a player, I want cards that can’t be played right now (i.e., not enough resources to play the card) greyed out and unplayable so it’s obvious that I can’t play them.

As a player, I want to see which card the enemy is playing on their turn so I can follow what’s happening.

As a developer, I want custom art so I can avoid using low-rez or copyrighted images.

# Use Cases

# Requirements

The game must have a starting screen where users can choose which “tavern” to play.

The game must allow the user to select a card to play on their turn.

The game must deal 5 cards to both players at the beginning of the game.

The game must allow the user to discard a card if they don’t wish to play any of their cards.

The enemy must either play a card or discard a card on their turn.

At the end of the player/enemy’s turn, the game must automatically draw a card in order for them to have a full hand for their next turn.

Each card must clearly show its name, image, cost, colour, and description.

Each resource type must be clearly coloured to match the cards that use it.

Each spendable resource must be increased by its modifier resource at the end of each turn.

If a spendable resource or tower reaches greater than or equal to the goal for that tavern, that player wins.

Modifiable resources cannot go below 1.

Spendable resources, walls, and towers cannot go below 0.

If a tower reaches 0, that player loses.

If a wall reaches 0, damage goes to the tower. Otherwise, damage affects the wall.

The images of the tower and wall increase as they get augmented and decrease as they take damage.

The tower and wall must have both the graphical representation and a number to show “health”.

The background should be subtly different for each “tavern”.

Cards with unusual effects (play again, draw a card, discard a card, cannot discard this card, etc) must be implemented properly.

Each card (initially) must be based on the original cards from MM7.

# Classes

# Test Cases

# Appendix A: Image Sources