Fortress Combat

System Requirements

Contents

Section 1 Purpose

Fortress Combat is a turn based card game where the objective is to reduce your opponents "Castle Health" to zero before yours is. The basic game revolves purely around this, with a catalogue of cards outlined in the **Card Classes** section of the rule book in **Appendix A**.

Section 2 General System Requirements

2.1 Major System Capabilities

- System shall be accessible 24/7
- System shall be available to download online
- System shall be available to run on Windows, Mac and Linux
- System shall be able to run multiplayer over the Internet

2.2 Major System Conditions

- System shall have the latest version of the Java runtime environment installed
- System shall have a broadband Internet connection
- System shall be accessible on appropriate operating systems (Windows, Mac, Linux)

2.3 System Interfaces

- System shall use JavaFX, Scene Builder and IDEA libraries to display and organise the GUI elements

2.4 System User Characteristics

- System user shall be aged 6 or over
- System users can participate in multiplayer online games with other users on different platforms
- System user's terminal shall function as either a **game server** or **game client**

Section 3 Regulation Requirements

- System shall abide by legislation relating to intellectual property rights and licenses
- System shall abide by legislation relating to consumer protection
- System shall abide by legislation relating to age ratings and classification
- System shall abide by advertising laws
- System shall abide by legislation relating to data protection and privacy
- System shall abide by legislation relating to gambling legislation
- responsibilities concerning staff and employment practices

Section 4 Security Requirements

- System authentication and authorisation are handled by the server

Section 5 Training Requirements

- System user shall learn to play using the rulebook (appendix A)

Section 6 Initial Capacity Requirements

- System shall have at least 2GB of memory and 1GB of free disk space (Operation system requirements for running JFX applications)

Section 7 Initial System Architecture

Section 7.1 Overall System Architecture

- User must have a keyboard, screen, and mouse to use the system
- No software requirements must be purchased and the game can be downloaded for free online (Website)
- System contains JavaFX, Scene Builder and IDEA libraries
- Operating Systems Requirements:
  - Windows: Windows XP with Service Pack 3 (minimum)
  - Mac: Mac OS X 10.4.10 (minimum)
  - Linux: Ubuntu 8.04 LTE (minimum)

- Networking:
  - Clients will form a connection with the server, the host computer will host the server as well as its own client.

Section 7.2 Component Interfaces

- Refer to **Appendix B**

Section 8 System Acceptance Criteria

- User should be able to select 1v1, 2v2 Playing modes
- The user should be able to play online 24/7
- The user should be able leave the game at any time
- Owner should be able to refuse user if there are any breach of conditions
- Owner should be able to review games results

Section 9 Current System Analysis

- The project is free for the public and can be obtained by any user if conditions are met
- The project allows users to connect and play with people across the world giving users a fun and exciting experience
- Use of the project requires a computer and an internet connection

Section 10 References

Document No.	Document Title	Date	Author/Source
1	System Requirements Specification	31/01/19	https://www.projectmanagement.com/deliverables/238236/System-Requirements-Specification?fbclid=IwAR2Zhi6SJ6Wogu33NmnjPu_Nd60OSyRPNoIY4g8jfyLVh_FwfmXNfx7RuLE
2	Game Architecture and programing	31/01/19	Radha Shankarmani

3	Difference between Acceptance Criteria Vs Acceptance Tests	31/01/19	https://www.softwaretestingclass.com/difference-between-acceptance-criteria-vs-acceptance-tests/
4	Software and System Requirements for JavaFX Technology	31/01/19	https://www.oracle.com/technetwork/java/javafx/system-requirements-1-2-140252.html
5	Regulation in the software and gaming industries	31/01/19	https://www.nibusinessinfo.co.uk/content/regulation-software-and-gaming-industries

Section 11 Glossary

- **Ability:** The text given on mages or soldiers
- **Action:** Anything done by a player - drawing, summoning, declaring an attack, etc
- **Ally:** You and your 2v2 partner
- **Cancel:** Completely negate either an ability or attacks depending on what is specified
- **Enemy:** Your opponent(s)
- **Field:** Ability that applies constantly while the card remains on the field
- **Game Client:** A terminal participating in a game hosted on a **Game Server**
- **Game Server:** A terminal hosting a game session
- **In Play:** Ability that can be activated once during each of your turns
- **On Lvl:** The instant that a mage levels up, they must use the given ability
- **On Play:** Ability that activates as soon as a card is played
- **Stun:** A stunned soldier or mage cannot attack or use abilities until the end of the owner's turn
- **Special:** An ability that can activate during either player's turns (These have the same activation windows as Tricksters)
- **System User**: The player of the gamez

Section 12 Appendices

Appendix A - Castle Wars Rulebook

Aim of the Game

The objective of Castle Wars is to reduce your enemy's castle health to 0 before your enemy can reduce your castle health to 0.

Deck

1. A deck must contain exactly 50 cards.
2. Limit of 2 of any card, excluding decrees which have a limit of 1.
3. The castle is not included in the number of cards in the deck and is kept separate from the deck.

Gameboard
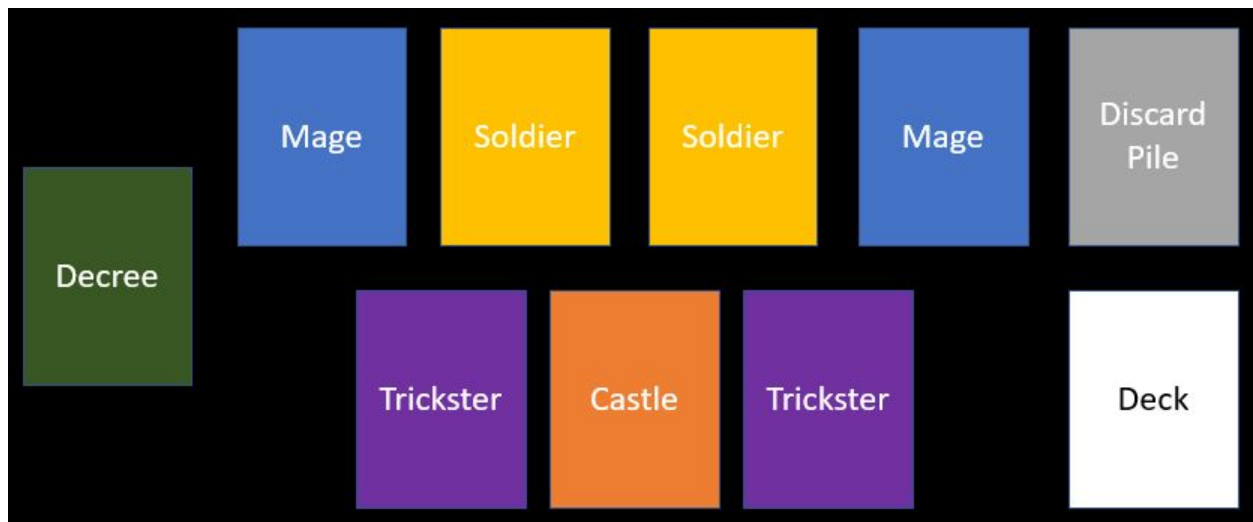
On the Field
- 2 Soldiers
- 2 Mages
- 2 Tricksters
- 1 Decree
- 1 Castle

How to Play

Beginning of a battle

At the start of a battle, both players place their castles face down and roll to see who goes first and second. They then shuffle their decks and draw 6 cards. At this point, either player can call a mulligan where they shuffle their hand into their deck and draw 5 cards. Players may continue to do mulligans, drawing one less card each time.

Drawing

At the start of each turn, you draw one card from the top of your deck unless it is the first turn, where no card is drawn.
If your deck has no more cards and are unable to draw then you lose the battle.

Shuffling

Whenever a card requires you to search your deck, the deck must be shuffled afterwards.
After a shuffle, your enemy has the option to cut your deck.

Playing Cards From Hand

Each turn, 1 soldier and 1 mage can be Playing and any number of tricksters can be played face down.
Some cards have a cost, which must be destroyed from the field in order to summon the card. Unless stated otherwise, card costs will apply for any card that is summoned by the ability of another card.
You cannot play from the hand or deck if there is no space on the board for your card, unless the cost of playing would make the required space.

Levelling up

At any point during your turn, you can level up a mage on your field, except the turn the mage was summoned. Below level 3, mages are unable to declare an attack. You do not have to level up mage if you do not wish to.
Attacking
From the second turn, you can attack at any point during your turn with eligible cards. An attack can be targeted at enemy mages, soldiers and castles. A castle can only be targeted if your enemy controls no soldiers, however soldiers and mages can be targeted at any time.
To attack, you first declare that you are attacking, then the enemy can activate any tricksters or abilities they have in response. If a response occurs, then the attack is treated as if it did not occur, the same card can attack again. If there is no response, your attack continues and can

no longer be responded to, except by a card saying "when an attack". The card with the higher attack wins, the lower gets destroyed. If both cards have equal attack, both get destroyed.

If an enemy castle is attacked, then it's health decreases by the attack of your card. Castles take no damage from battles between soldiers and mages.

End of match

A battle ends either when one player's castle health reaches 0, or when a player is unable to draw another card.

Card Classes

Soldiers

Soldiers act as your main form of attack and defence on the board.

1. Soldiers can have one or more on play, in play, or field abilities.
2. While you have a soldier in play, your castle cannot be attacked.
3. Soldier cards can be summoned once per turn, excluding when summoned by a different card's effect.
4. Each soldier can attack once per turn, at any point during your turn.

Mages

Mages act as support that gain more powerful abilities over time.

1. Mages can have On Lvl or In play abilities.
2. They do not protect the castle from attacks.
3. When played they start at level 1.
4. Only level 3 mages can declare an attack.
5. You can level up all your mages once per turn, excluding the turn they were summoned.

Tricksters

Tricksters are played face down and act to disrupt your enemy or support yourself.

1. Tricksters can only be played during your enemy's turn, unless their ability is special.
2. You can play as many tricksters as you want during each of your turns.
3. Tricksters can only be activated in response to an action by the enemy.
4. Tricksters can be activated at the same time in response to 1 action, in which case the player decides the order of resolution.

Decrees

Decrees are cards with a powerful multi-turn effect that destroy themselves at the end.

1. Decrees are not destroyed until they destroy themselves, except by enemy cards.
2. A max of 5 decrees can be in the deck, with only 1 of each decree.

Castles

Castles represent your health, when your castle is destroyed you lose the battle.

1. Most castles have an ability that supports you.
2. Castle health varies between different castles - castles with stronger abilities tend to have less health.
3. Castles cannot be targeted by any card other than for an attack or damage-dealing ability.

Appendix B - Top Level Component Diagram