**Project Title:** Online Deck-Building Game

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**Abstract.**

The objective of this project is to create a fully functioning multiplayer deck-building game, similar to real-world trading card games such as "Magic: The Gathering" or virtual deck-building games such as "Hearthstone". The game features a wide variety of cards, each with their own attributes and abilities, that the player can use to create a deck which conforms to a strategy that they wish to play by. To help them execute this strategy, the player also picks one Lord card for their deck, with a powerful ability that has the potential to completely define the player's strategy. The player then take this deck and tests it in one-on-one matches with other players over the internet.

The game has been designed with resource management being a key aspect of the gameplay. Player's manage two primary resources, their cards and their gold. Playing their cards will cost gold, however will allow them to remove their opponent's resources, however running out of gold will lead to losing the game. As a result, player's must maintain a balance, knowing when to spend gold for a high-impact turn, and when to keep it in reserve and play defensively.

The game's implementation utilizes a client-server architecture, with the server processing commands and keeping track of the game state, and the client presenting the game state to the player, as well as sending user input to the server. The client was developed using the Unity game engine, with scripts being written in C#, and the server written using pure C#.

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