Magic the Gathering Database Project Report

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Abstract

Magic the Gathering is a popular trading-card game with over 30,000 cards available since of April 29, 2017. We took upon the task of creating a database capable of holding all these cards in MySQL, and allowing the user to be able to search cards by specific search fields and allow users to create decks that are stored into the database. The design and implementation of the database was created and revised so that each relation in our schema was decompose into Boyce-Codd Normal Form (BCNF). Designing the schema was a complicated task as it required a large amount of decomposition of information, such as separating SetName from SetCode to allow BCNF from the entity MTGSet and so forth. The vast amount of information found in the Magic the Gathering rules, card, color, color identity, types, set, and formats was a complicated task. But nonetheless, we were able to resolve this problem by creating a relational model that supports BCNF and allows user to be able to search from the database to find a card(s) that meet specific requirements provided by them and allow construction of decks by user based on format.

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