

Mastering Magic

Project Milestone #2: Alpha Version

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91.462 GUI Programing II

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Review Goals

Our main goals for the alpha release were as follows:

- Create a comprehensive card database.
- Create a deck database including many of the winning tournament decks.
- Create PHP code to connect to the card and deck database.
- Create an alpha version of the universal style.css.
- Create an alpha version of the mana_selector.html.
- Create an alpha version of the main.html.
- Create an alpha version of the decks.php.
- Create an alpha version of the cards.php.
- Run user tests on the alpha page before submitting the project.

We were able to populate the card database using an external JSON file, as well as create a deck database by using a web crawler to search <http://magic.wizards.com/> for deck and card names. While the card database is currently fully populated, the deck database is not and we are currently in the process of running a second web crawler on the archives at <http://magic.wizards.com/>. The code to establish a connection to a database and query the data via PHP was given to us in class. This code was adjusted to work specifically with our tables. We have created a basic styles.css for use on all Mastering Magic pages, but the styling will receive a significant update for the beta build. The mana_selector.html page has been created and is currently used as a temporary home page until a beta version of the main page is completed. We were able to create the cards.php and decks.php pages, which display information about the cards gathered from the databases.

Unfortunately, we were unable to participate in the first round of usability testing due to major bugs with card names and the SQL database.

Our main goals for the beta release are as follows:

- Update styles.css to improve site wide usability.
- Create a beta version of index.html.
- Update the design of decks.php to better show multiple deck results.
- Update the design of cards.php to better show card information.
- Update the design of cards.php to show statistics with D3.js.
- Update mana_selector.html to have information on each mana type.
- Conduct usability testing on Mastering Magic.

So far we are on track to complete our beta goals. Our main concern with the beta build is styling our website. The alpha build saw little in the way of styling and many changes will be made. Our beta site will only implement one new major feature, D3.js. This feature will not take much time to implement due to its thorough documentation and ease of use. For our beta build, we plan to leave more time for usability testing than was left for our alpha build.

We have withheld some features from our beta build due to time restraints. User logins, comment section, and deck builder will take too much time to implement and will not be used in any later builds.

Current Features

The alpha build of the site has an all-inclusive card database populated by <http://mtgjson.com>, which is used to display card information as well as images of each card. Using this database, the `card.php` page displays a specific card that the user has searched. The `mana_selector` page displays each mana color using a carousel. The carousel allows the user to choose multiple mana colors which it posts to the `deck.php` page. The `deck.php` page uses the mana colors to query the deck database which contains winning magic decks from <http://magic.wizards.com/>. The `deck.php` page currently shows the first result from the query and lists a link to each card and its count in the deck.

New Issues

- A major security issue was discovered involving the string concatenation of SQL statements. To overcome this issue a more secure method of using bind variables will be implemented in future builds.
- The search bar located on the navigation bar only searches the current page, making it useless on the homepage and `mana_selector` page. In future builds we will either remove it from those pages or redirect the search to the card page.
- Some cards have Unicode characters in their name making it impossible to search for them. In future builds the search bar will reference a json file containing decoded card names as well as provide autocomplete functionality.
- The deck page currently only shows one result for each search. In future builds a dropdown selector will be populated with all results and only the selected deck will be shown

Contingency plans

With the backend of the project fully functional, we found no need to form any contingency plans. Most of this project was waiting on our databases to be fully functional and we have successfully reached that point with the completion of our alpha build.

Set Final look and Feel

All of the pages that make up Mastering Magic have been designed except for the main page which will be used to guide new users through the rules of magic. For the beta build, a central stylesheet needs to be implemented. This is one of our next major steps. We have started working on a central landing page that will explain Magic The Gathering and show novice players the basic rules of the game. This will help these users experience a much more fluid transition into the Mana Selector Page so they can start their deck building.

Provide clear overall picture of where things stand right now

At this point in development, we have not fallen behind with our schedule. Errors and bugs have been documented and are being resolved. Our two major goals of the beta build, a central stylesheet and a landing page, are already currently in development. The final back end work for the statistical analysis is nearing completion, with only a few minor bugs waiting to be resolved.

Schedule

Features that will no longer be in the final product have been removed from our schedule and all deadlines have been updated as seen in Figure 1.

MM: Michael Mammosser, GC: Gregory Caldwell, AD: Andrew DiBiasio

Task Name	Duration	Start	Finish	Responsible
Mastering Magic	64 days	Tue 2/3/15	Sun 5/3/15	
Project Proposal	0 days	Tue 2/10/15	Tue 2/10/15	
Proposal Draft	5 days	Tue 2/3/15	Sun 2/8/15	MM
Mock card.html	1 day	Sun 2/8/15	Sun 2/8/15	GC
Mock manaSelector.html	1 day	Sun 2/8/15	Sun 2/8/15	AD
Mock main.html	1 day	Sun 2/8/15	Sun 2/8/15	AD
Proposal Editing	3 days	Sun 2/8/15	Tue 2/10/15	MM,GC,AD
Alpha Version	0 days	Fri 2/27/15	Fri 3/10/15	
Card Database	3 days	Fri 2/6/15	Tue 2/10/15	MM
Deck Database	8 days	Sun 2/8/15	Tue 2/17/15	GC,MM
PHP Database Connection	6 days	Tue 2/10/15	Tue 2/17/15	MM,GC,AD
Alpha of style.css	11 days	Tue 2/10/15	Tue 2/24/15	AD,MM,GC
Alpha of mana_selector.html	11 days	Tue 2/10/15	Tue 2/24/15	AD
Alpha of decks.php	11 days	Tue 2/10/15	Thu 3/05/15	AD,MM,GC
Alpha of cards.php	11 days	Tue 2/10/15	Thu 3/05/15	GC,AD
Alpha Testing	5 days	Thu 3/05/15	Tue 3/10/15	MM,GC,AD
Beta Version and Usability Test	0 days	Wed 4/15/15	Wed 4/15/15	
Beta of style.css	16 days	Tue 3/10/15	Thu 3/19/15	AD,MM,GC
Beta of mana_selector.html	16 days	Tue 3/10/15	Thu 3/26/15	AD
Beta of main.html	16 days	Tue 3/10/15	Thu 3/26/15	AD,MM,GC
Beta of decks.php	16 days	Tue 3/10/15	Thu 3/26/15	AD,MM,GC
Beta of cards.php	16 days	Tue 3/10/15	Thu 3/26/15	GC,AD
D3.js Implementation	11 days	Tue 3/10/15	Tue 3/24/15	MM,GC
Beta Testing	29 days	Thu 3/12/15	Tue 4/21/15	MM,GC,AD
Class Presentations	0 days	Fri 4/24/15	Fri 4/24/15	
Prepare Presentation	10 days	Tue 4/21/15	Sun 5/3/15	MM,GC,AD
Final Submission Due	0 days	Sun 5/3/15	Sun 5/3/15	
Poster Presentation	0 days	Sun 5/3/15	Sun 5/3/15	
Poster Creation	10 days	Tue 4/21/15	Sun 5/3/15	MM,GC,AD

Figure 1. Project Schedule