ListWriter

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Abstract

Table of Contents

Introduction and Background

The problem this project is trying to solve is fairly simple, and very low stakes. When playing tabletop miniatures games players generally have to build a list of what models they’re bringing in their army, keeping it below a certain point value, where each model has a different point cost as well as potential upgrades costing additional points. While some companies provide list builders for their game, they are often not kept up to date, are locked behind a paywall, or they are just clunky and unintuitive for users. Some third party solutions have existed, but the primary example of this has almost become abandonware, with licenses only being renewed days after they expire, leaving people unable to access the service.

The objective of this project is to create a multi-platform web based app that allows users to create their army lists easily, produce the list in a printable and easily exportable format, and time allowing provide the option for users to save their lists for future modification and share their list with others so that others can start with the same base. Additionally, the app will provide some basic statistical calculators for different models.

The intended users of this project are people who play miniature war games or other similar tabletop games that require list construction.

The primary alternate solution that is popular on the market is called battlescribe. While the data creation is open source, the app itself is not which leads to a disconnect between people creating the data and the developer of the app. It also leads to one person making money off of a system that is held up by a large group of third party people doing the bulk of the work for free, and means that these people don’t always update things in a timely manner. Additionally the format for the data files this system uses is fairly complicated, with even fairly low model count army lists taking up over 11,000 lines. In addition to this difficult to maintain system, the original creator made no updates for years and then only came back to update a license days after it expired, showing that the dev is only maintaining the app for the cash flow and not actually improving or adding functionality.

Some benefits of my solution are that the app will be easily accessible on any platform, and plans to allow users to keep track of the stats for their armies and update them as necessary rather than waiting on someone else to release an update.

Design, Development, and Test

The plan for developing this app is to have a web page doing most of the heavy lifting on the front end, with a noSQL database (currently planning on IBM cloudAnt) storing and providing the data requested. Javascript will do the majority of the data manipulation and querying, as well as put information into a table visible to the user. The data the user requested will be exported into a pdf or similar format upon request. In terms of risk, there is little risk in the javascript and web page portion of the project, as that is something I’ve taken a class with and am reasonably familiar with already, and learning more about in a second class this semester. The database could pose some problems as I’m rusty in SQL and have no noSQL experience, so some basics of the database will be worked on early on to ensure that the noSQL approach is right for this project. Given that the query language used is javascript it’s unlikely that the database will pose a massive problem, likely just a few hours of learning. Converting data to a pdf or other format is an area that I have no experience on, so I will be doing some background research on the process to ensure that I have the ability to complete that feature in time.

Initial development has just involved creating a mockup page with little in the way of aesthetics to show what the site will be capable, and determine what sort of structure the database will need to have.