

Database Design

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Overview

The best choice for my application is MongoDB. I have chosen to use this system because the parts of my application that will be stored, bits of information such as first and last names and sentence for the backgrounds, will not need to share relationships among themselves. I plan to make each bit of data type contain an identifier where needed to allow the correct type of information to be picked up, and that should be more than sufficient.

In this case the information created by the application will be saved to the user's computer rather than to any online service so the actual calculations will be handled on the PHP side.

Data Specifications

I will have several different tables for my data as there are a few types of information I want to fill in. Names, childhood backgrounds, and adult backgrounds are three that are crucial for the application. Names will need to have three types in it as well, surnames, male first names, and female first names.

Structures

Names Table

```
{  
  
  "_id": int  
  
  "type": string (first or surname)  
  
  "region": string (for allowing the user to choose a region of the world for the character)  
  
  "gender": string (male, female, or neutral)  
  
  "name": string  
  
}
```

Childhood Backstories

```
{  
  
  "_id": int  
  
    "region": string  
  
  "sentence": string  
  
}
```

Adult Backstories

```
{  
  
  "_id": int
```

```
“region”: string  
  
“sentence”: string  
  
}
```

Purpose, Implementation, and Interactions

Names

Finding an appropriate name for a character is one of the most difficult things for me. Being able to automate that is necessary to streamline the process of creating a character. This is therefore a vital part of the application. I have personally used existing name generators quite often when that was all that I needed because hunting through naming websites takes so much time.

For this I want to fully automate the process of providing a full name for the character. I do want to give the user the option to choose a region for the name and how many middle names to give the character, but by default it should only give them one first and one last. I also want to have the option to choose more than just male or female characters, in which case the application will be able to search both male and female first names as well as neutrals for the character.

Backstories

This is where the character is fleshed out. Childhood and adulthood backstories together should combine to give the character the bones of a backstory that will prompt the user to invent ways in which to connect the two, thus giving the character a fully unique background.

A good example of what I hope will happen would be if the character were given a childhood backstory of being an orphan from a small town, and an adult story of being a banker. The author would then be able to consider how these two might have occurred, as well as their own intentions for the character, to decide how this young orphan became a banker. If they need a villain, they could say the character became a crime boss, or if they need a generic background character, they could say he was adopted into a family of bankers.

The idea here is to spark creativity and allow the user to customize the character further for whatever they might need. For that reason, I would like to implement the ability to choose how many details from each life stage are given for the character. More may prove difficult to connect, but it also becomes a creative exercise on its own trying to connect multiple backstory prompts into a cohesive character.

Stretch Features

Given the time I would like to include more ways for the user to customize the experience of using the app. The ability to lock certain sections and reroll the rest, for example, would be very useful. Being able to choose to keep parts of the background stories while rerolling others could let them make a character that truly fits the confines of their story.

It would also be helpful to have a greater variety of background, names, and origins. For my MVP I will try to have at least two regions to choose from, but eventually the app would benefit from having regions from all over the world.

Once there are more than two regions to choose from, I would also love to be able to add the ability to choose multiple regions according to the users wishes rather than being forced to

pick all or one. That would allow users to pick an area rather than a specific place from which to get their character, thus making it more random while still being useful.

These are all features that rework how the user interacts with existing data tables rather than requiring new data tables on their own. As far as features requiring a new table, I would like to include more and different sections for the backgrounds. Some examples of these might be the following:

- Colors
- Foods
- Pastimes
- Clothing Styles
- Relative Heights
- Species

The data structures for each of these new tables would be something like this:

```
{  
  
  "_id": int  
  
  "region": string  
  
  "sentence": string  
  
}
```

Details for each table would be held in the “sentence” string. The application would be able to pick one or more from each sections and apply it to the character to give them even more

personality and customization. Colors, foods, pastimes, and clothing styles would give the character preferences for each of these things. Relative heights would be a little more general so as to be useful to both measuring systems' users, by saying something like 'This character is considered quite tall.' rather than giving exact measurements. Species would be useful particularly in fantasy settings and should be able to pick more than one species as well. That would allow for hybrid creatures which not only makes the character more unique but also offers a little more insight into their background for the author.references for each of these things.

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