**Databases (EN.600.315) Final Project**

**Sack’s Snake Sssearcher**

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Sack’s Snake Sssearcher is an online database of all of the snake species of the world. I defined snakes as being a member of the suborder Serpentes—this basically means that the few legless lizard species are excluded as they are not truly snakes. The database includes information on when and by whom the species was discovered by, more detailed taxonomy, if it is venomous and/or live bearing, what country(ies) and continent(s) it lives in, the human population of these countries, and more.

Please head to *https://snake-sssearcher.herokuapp.com* to view the site.

**Platform**

As stated above, the php files and the database itself is hosted on heroku. The database is the JawsDB flavor of MySQL.

**Data Sources and Loading**

The main source of data for Sack’s Snake Searcher is from http://reptile-database.org/. They allow people to download a tab delineated file of all of the species in their database. However, much of the data is in very inconsistent formats so I wrote python scripts (in directory /py-scripts) to parse the data. I also retrieved data about continents, countries, and population from Wikipedia and wrote a couple python scripts to parse that data as well. To load the data, I used the MySQL command LOAD DATA LOCAL INFILE ‘data.tab’ into TABLE table1 FIELDS TERMINATED BY ‘\t’ LINES TERMINTED BY ‘\n’; Since I had been switching between Bash on Windows and Cmd, sometimes ‘\r\n’ was used for line termination. You can see these SQL scripts in the /sql-scripts directory.

**User Guide**

To use Sack’s Snake Sssearcher, simply navigate to *https://snake-sssearcher.herokuapp.com*. You will be prompted with a lot of fields for entry. Things to note are that entering a common name will return all species with that as part of their common name, not just exact matches. Same goes for higher taxa and discoverer. Venomous and live bearing (versus egg laying) are booleans. Note that the population refers to the human population of the country, meaning if you searched for North American countries with population greater than 40,000,000, it would include Mexico and USA. For counting, “Countries with each Species” will group by the species and count the number of countries that it lives in. “Species in each Country” will group by country and count the number of species that live in each particular country.