CS450: Final Documentation

Emily Risley, Nicholas Grogg, Timothy Kudryn

04-28-2020

**Overview**

**Project design**

**Languages**

**Roles**

**GUI**

**Plots**

**Backend**

**Web Server**

For a web server, a web hosted CentOS 7 Linux server was used. This configuration was NOT a LAMP stack, as Apache and PHP were not used. Access was done via a user, password, IP and database combination by the front end. It was also possible to log into the server for maintenance using an SSH key, as password logins were disabled. CentOS 7 was chosen for it’s stability and extensive documentation.

**Database**

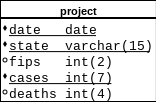
This database was a MariaDB database using the InnoDB engine. This engine was chosen as it’s an atomic engine, so transactions are either entirely successful or fail completely. The root user is not used for remote connections, so a special remote user was configured specially for the CS450 database.

**Database Values**

Most of these values are somewhat obvious, however the FIPS (Federal Information Processing Standards) codes are not. These are unique numeric codes assigned by NIST (National Institute of Standards and Technology) assigned to states and counties. For this project only the two digits used for states were given in the dataset, with the three digit county FIPS numbers not included.

|  |  |
| --- | --- |
| **Column** | **Description** |
| Date | When the data was recorded |
| State | What state is the data from |
| FIPS | Two digit code used to identify a state |
| Cases | The number of recorded cases |
| Deaths | The number of confirmed deaths |

**ER Diagram**



Underlined values are primary keys, these make up a composite primary key

Hollow symbols (Circles) are allowed to be NULL

Solid symbols (Diamonds) are not allowed to be NULL