CS450: Final

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1 Overview

1.1 Project design

1.2 Languages

1.3 Roles

2 GUI

3 Plots

4 Backend

4.1 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.

4.2 Database

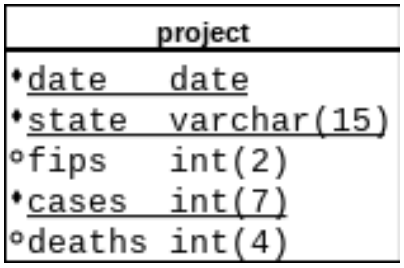
This database was a MariaDB database using the InnoDB engine. This engine was chosen as it's an atomic engine, so transactions are either entirely successful or fail completely.

4.2.1 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 readed deaths

4.2.2 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