

US Census: Income & Poverty Data for Illinois

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Project Outline

Create a visualization and data export tool for data from the US Census.

Create a website using React with a local database background in mySQL to display data related to Income and Poverty information gathered from the US Census website. The website will allow users to filter the data and display it through a table and county map. The user will also have the option to download the data in either a JSON or CSV file.

Requirements & Features

MUST

- Local Database (mySQL)
- Frontend UI
 - Filter options, Data visualization, Export tools

NEED

- Database schema
- Backend for data filtering & export

WANT

- Scalability
 - State search
 - Comparison
-

Tools Used

Numpy

- Allows the manipulation of data and access to mathematical functions

Geopandas

- Geospatial data analysis and manipulation

Anaconda

- Collection of data science libraries

React

- Flexible JS library for websites

Docker

Containment for Database

Flask

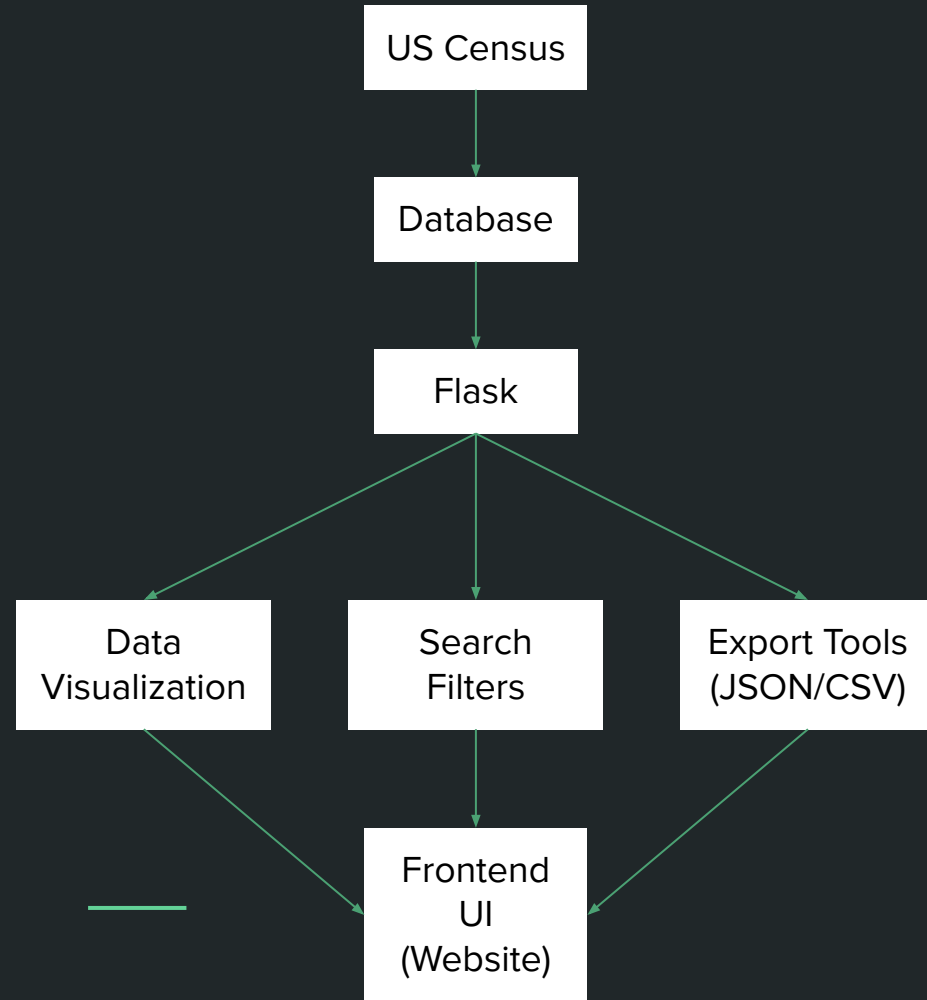
Integrates back and front end intuitively

Allows Python use with HTML

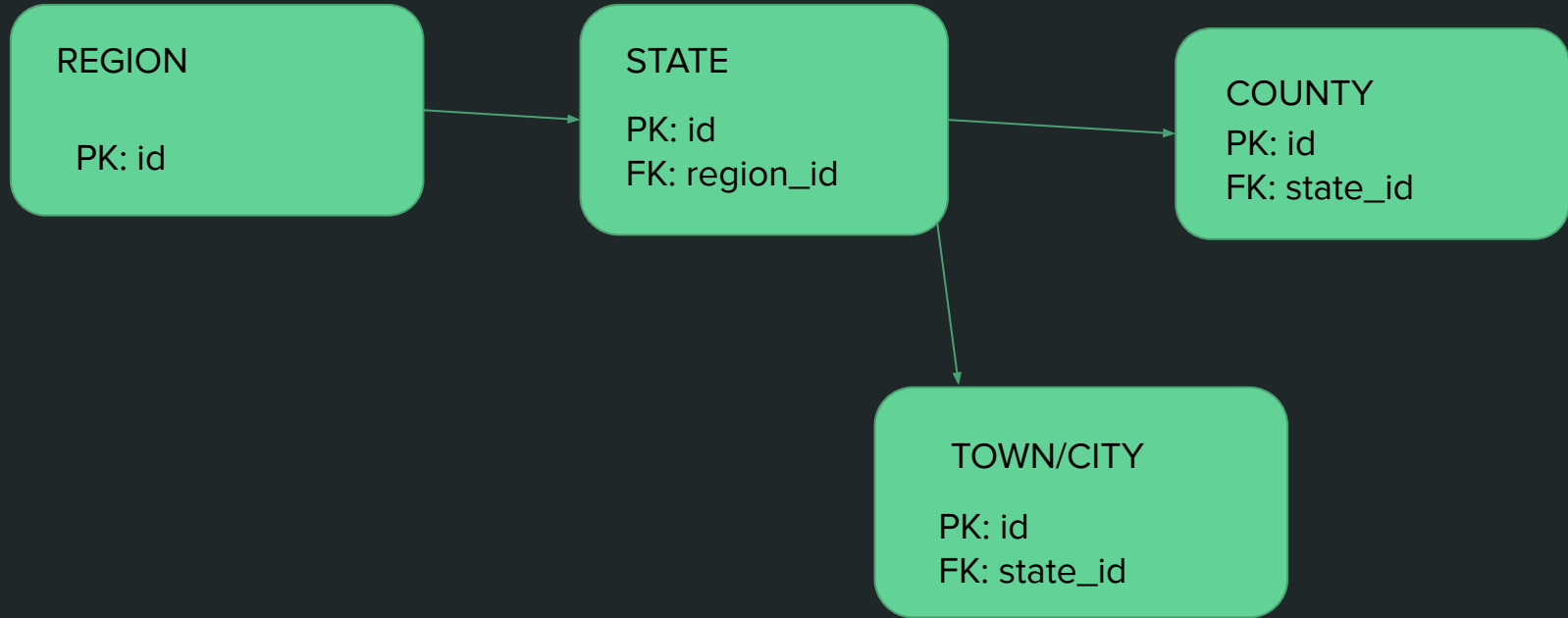
MariaDB

Free, OpenSource relational Database

Architecture of System



Database Schema



Demo

Pivotal Tracker & GitHub

Pivotal Tracker

<https://www.pivotaltracker.com/n/projects/2532382>

Github

<https://github.com/Hodge-zf/census-visualization-tool>

Learning Outcomes

- Pivotal Tracker
 - Consistency
 - Velocity
 - Exposure
- GitHub
 - Consistency
 - Project Versions
 - Pushing Updates

- Project Design
 - Starting from a single repository
 - Scalability with database
- Testing
 - Too little
 - Mainly backend with database
- Tools
 - Research/Learning
 - Better implementation of flask & react
 - Meetings

Thank you!

Comments or Questions