The following is a directory of the files contained within the CIC Student Challenge project repository.

- 1. **Data** datasets (raw, cleaned, final), methods (cleaning and report downloading), and variable dictionaries.
 - a. <u>cleaned compiled data and keys</u> (Datasets used for analysis), data downloads that needed to be cleaned, variable dictionary, and cleaning methods.
 - i. CDF_KFF_altered_raw_download contains 4 excel datasets that were cleaned before being added to the datasets used for analysis.
 - ii. Prepared_Data_for_Python_Analysis contains the prepared excel datasets used for OLS/LASSO regression.
 - iii. Methods_Data_Prep_Cic_Challenge.pdf Breakdown of steps taken to compile data used in the cic_challenge_data sets used for OLS/LASSO regression.
 - iv. Variable_Dictionary_Cic_Challenge_Data_Sets.pdf An explanatory list of all the variables included in the final data set. Including disclaimers and notes from the download sources.

b. raw downloads

- i. CDC Contains raw data sets and the original variable dictionary downloaded from the CDC Socrata data tool.
 - 1. CDC_Socrata_Variable_Dictionary.xlsx used with the CDC Socrata SQL no code reporting tool.
 - 2. Jan_Sept_2021_Covd-19_Vaccinations_in_the_United_States, County_20250831.csv First half of a large download of Covid vaccination data.
 - 3. Sept_2021_2023_COVID-19_Vaccinations_in_the
 _United_States,Count (1).csv Second half of a large download of
 Covid vaccination data.
- ii. KFF Contains raw data sets downloaded from the KFF Covid19 Monitor Custom State Reporting tool.
 - 1. Adult_poverty_rate_by_family_structure.xlsx poverty rate measured by adults with/without children and overall totals per state and year (2021, 2022, 2023).
 - 2. Disparities.xslx Poverty Rate by Race/Ethnicity per state and year. (2021, 2022, 2023)
 - 3. Economic_Measures.xlsx Total Gross State Product (GSP), Seasonally adjusted unemployment rate by month, state, SNAP (Supplementary Nutritional Assistance Program) Total Benefits distributed, and SNAP monthly average participants, by state and year.

- 4. Mental_health_status_by_days.xlsx number of poor mental health days per month, by state and year.
- 5. Population_Distribution.xlsx Total US Population, Total US population by Race/Ethnicity, state, and year (2021, 2022, 2023).
- iii. Centroids.xlsx contains longitude and latitude columns downloaded from Google Dataset Publishing Language
- iv. Download_Steps_Heirarchical_Files.pdf this is a step-by-step guide on how I utilized the reporting tools to obtain the raw_downloads data sets including links to reporting tools.
- 2. Outputs contains .png used for visual, tables, figures, the project white paper.
 - a. .png contains images of statistical tables and visuals used in the CIC Tables and Figures PDF.
 - b. <u>CIC_Tables_and_Figures.pdf</u> Correlation heatmap, regression outputs, coefficient tables and charts, plot and geographic visuals.
 - c. <u>CIC_White_Paper.pdf</u> This is the paper that was submitted for the CIC_Student_Research Challenge.
 - d. <u>VIF_OLS_LASSO_tables.xslx</u> contains the table output from the analysis scripts.
- 3. **Scripts** contains analysis code and html links to the JSON geographic bubble maps.
 - a. cic_challenge_regression.ipynb
 - b. bubble map with legends.html (2021, 2022, 2023)