PHASE 4: DEVELOPMENT PART2

**1. Exploratory Data Analysis (EDA):**

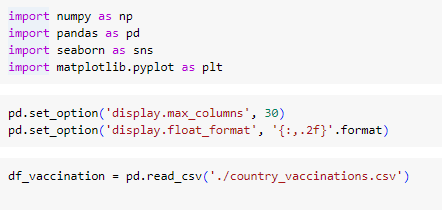
* Data Review and Summary Statistics: Start by reviewing the preprocessed data. Calculate descriptive statistics (mean, median, standard deviation) for key variables related to vaccine efficacy, adverse effects, and distribution.
* Visualization for Distribution and Trends: Utilize histograms, box plots, and density plots to understand the distribution of vaccination rates, adverse reactions, and efficacy across various demographics or regions.

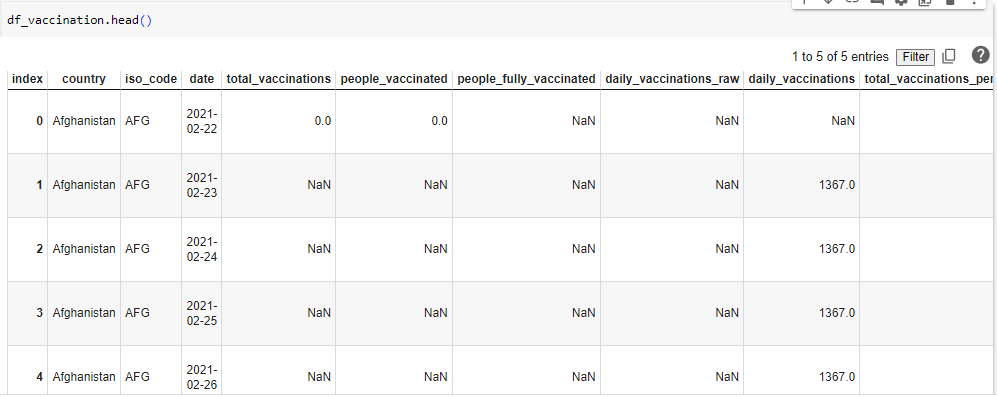
**2. Statistical Analysis:**

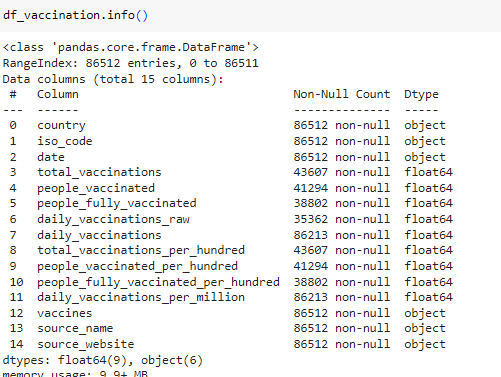
* Hypothesis Testing: Apply statistical tests to assess the significance of differences in vaccine efficacy, adverse effects, and distribution among different populations or geographic areas.
* Correlation and Regression Analysis: Determine relationships between variables such as vaccination rates, adverse effects, and demographic factors. Consider regression models to predict vaccination trends or potential outcomes.

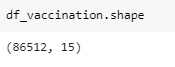
**3. Visualization:**

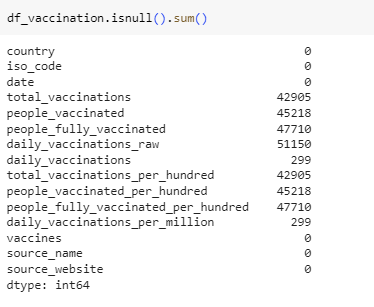
* Visual Representation of Statistical Analysis: Create visualizations based on statistical findings. Use scatter plots, correlation matrices, or regression plots to visually depict relationships uncovered in the analysis.
* Interactive Visuals: Develop interactive visualizations if possible, allowing policymakers and health organizations to explore the data and findings dynamically.

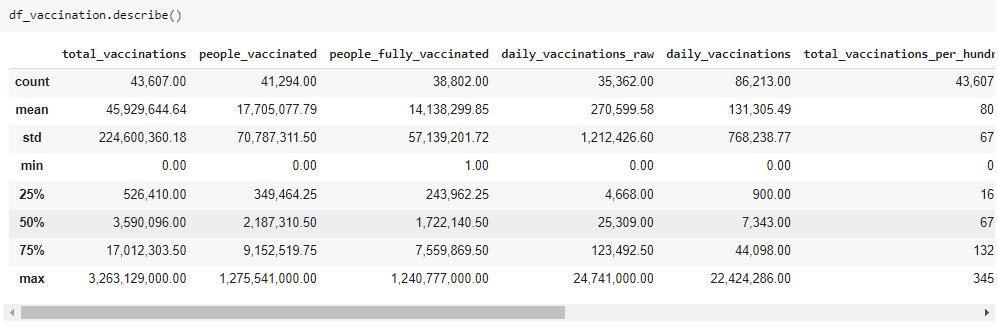










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