

WORLD POPULATION SCRAPPING

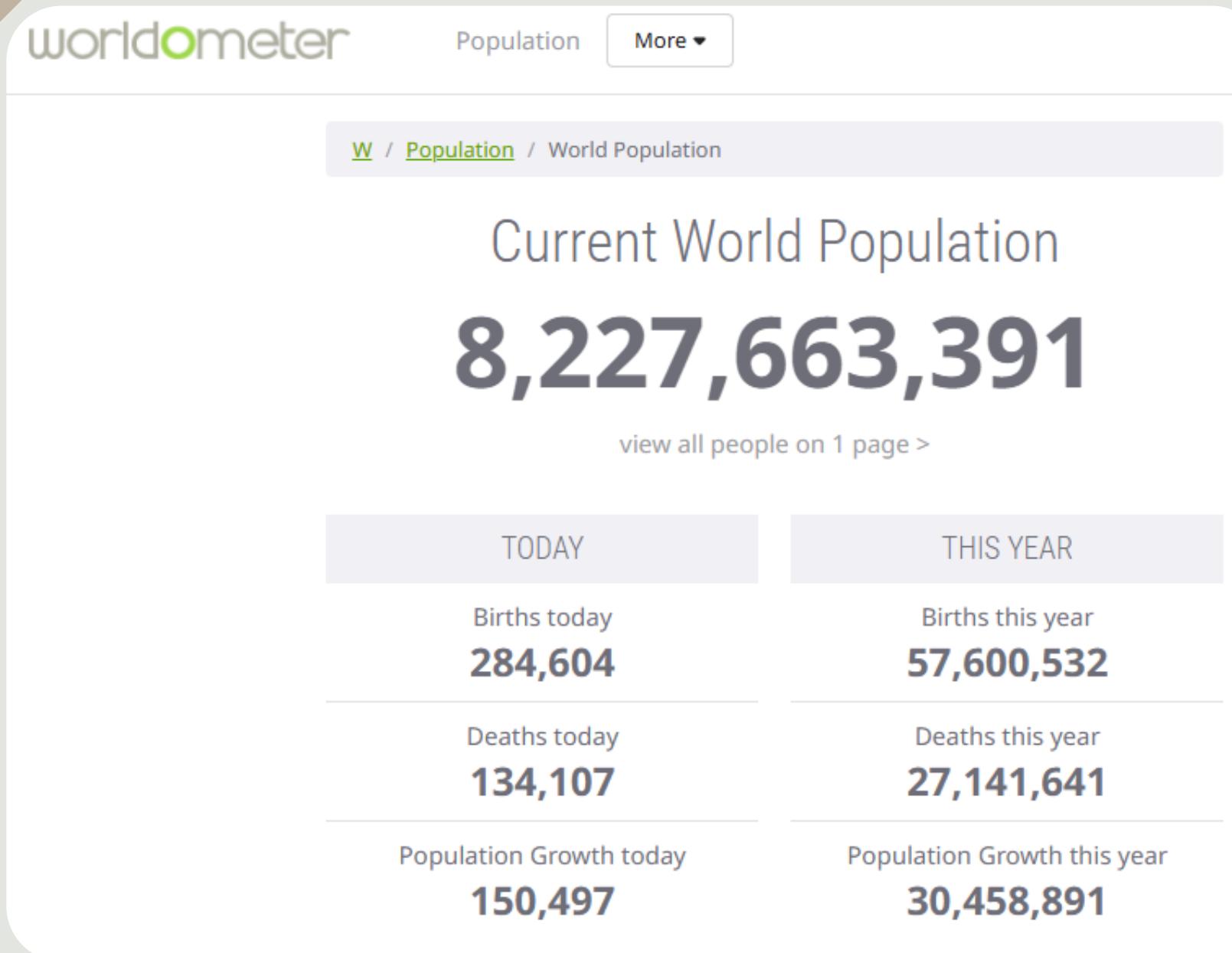
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OVERVIEW

- Dataset
- Feature
- Dependencies
- File Tree
- The App (Demo)
- Reference

DATASET



The dataset is taken from worldometer, A world statistic website that provides real time data of:

- World total population
- Birth rates,
- Death rates,
- Etc

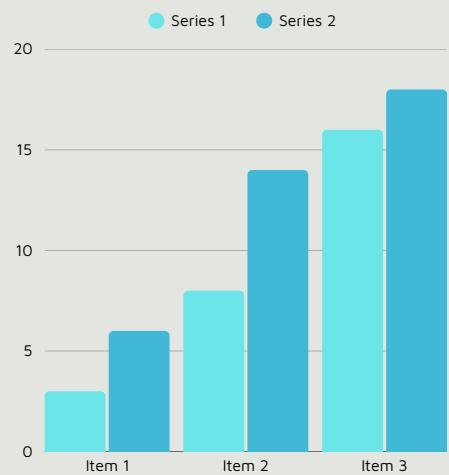
FEATURES



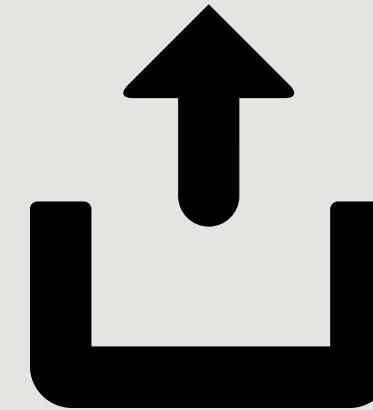
Scraps and saves data of countries in a session



Search countries by name



Visualises country data and comparisson(s)



Export files in .csv or Excel (user choice)

DEPENDENCIES

- Request
- BeautifulSoup4
- Colorama
- LXML
- Pandas
- Matplotlib
- Tabulate

FILE STRUCTURE

```
__pycache__
midterm
├── .gitignore
└── ACP Worldometer Final.ipynb
├── README.md
└── main.py
└── requirements.txt
└── scraper.py
└── test_scraper.py
└── visualizer.py
└── worldometre.py
```

THE APP

The screenshot shows the Population Data Explorer app interface. At the top left is the logo "Population Data Explorer". At the top right, it says "Loaded 233 countries". The main sections include:

- Search Country:** A search bar with "Country Name: Vietnam" and a "Search" button. Below it is a "Add to Compare" button.
- Compare Countries:** A list showing "Indonesia" and "Vietnam". Below this are three buttons: "Visualize", "Remove", and "Clear All".
- Top Countries:** A section to find the top countries by metric. It includes a dropdown "Metric: Population" (with a dropdown arrow), a "Count: 10" input field, and a "Show Top" button. Below this are "Export Data" and "Exit" buttons.
- Right Panel (Detailed Information):** A section titled "Vietnam" with a list of metrics:
 - Rank : #16
 - Population : 101,598,527
 - Yearly Change : 0.60%
 - Net Change : 610,841
 - Density : 328 people/km²
 - Land Area : 310,070 km²
 - Net Migration : -48,171
 - Fertility Rate : 1.88
 - Median Age : 33.4 years
 - Urban Population: 41.4%
 - World Share : 1.23%

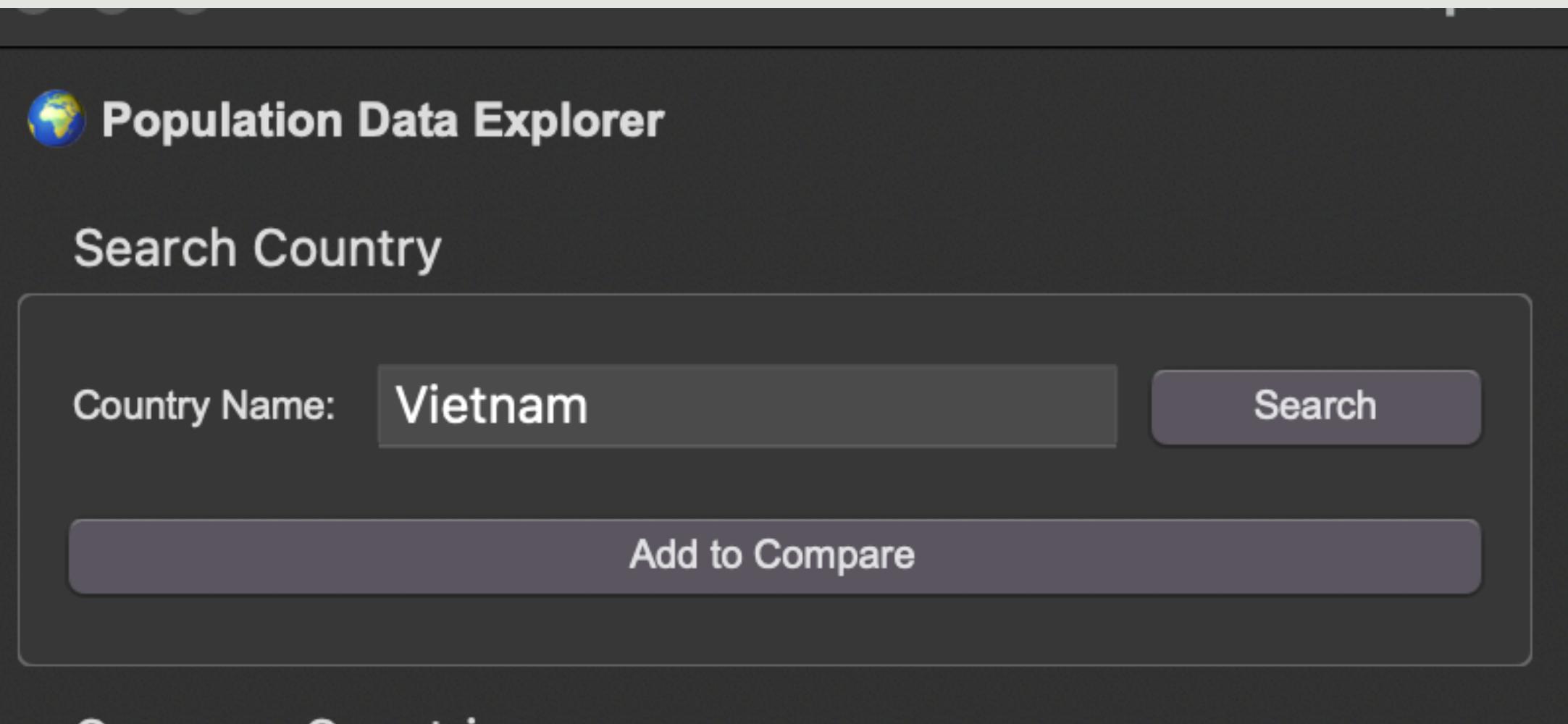
The app is divided into 4 main Sections

SECTIONS

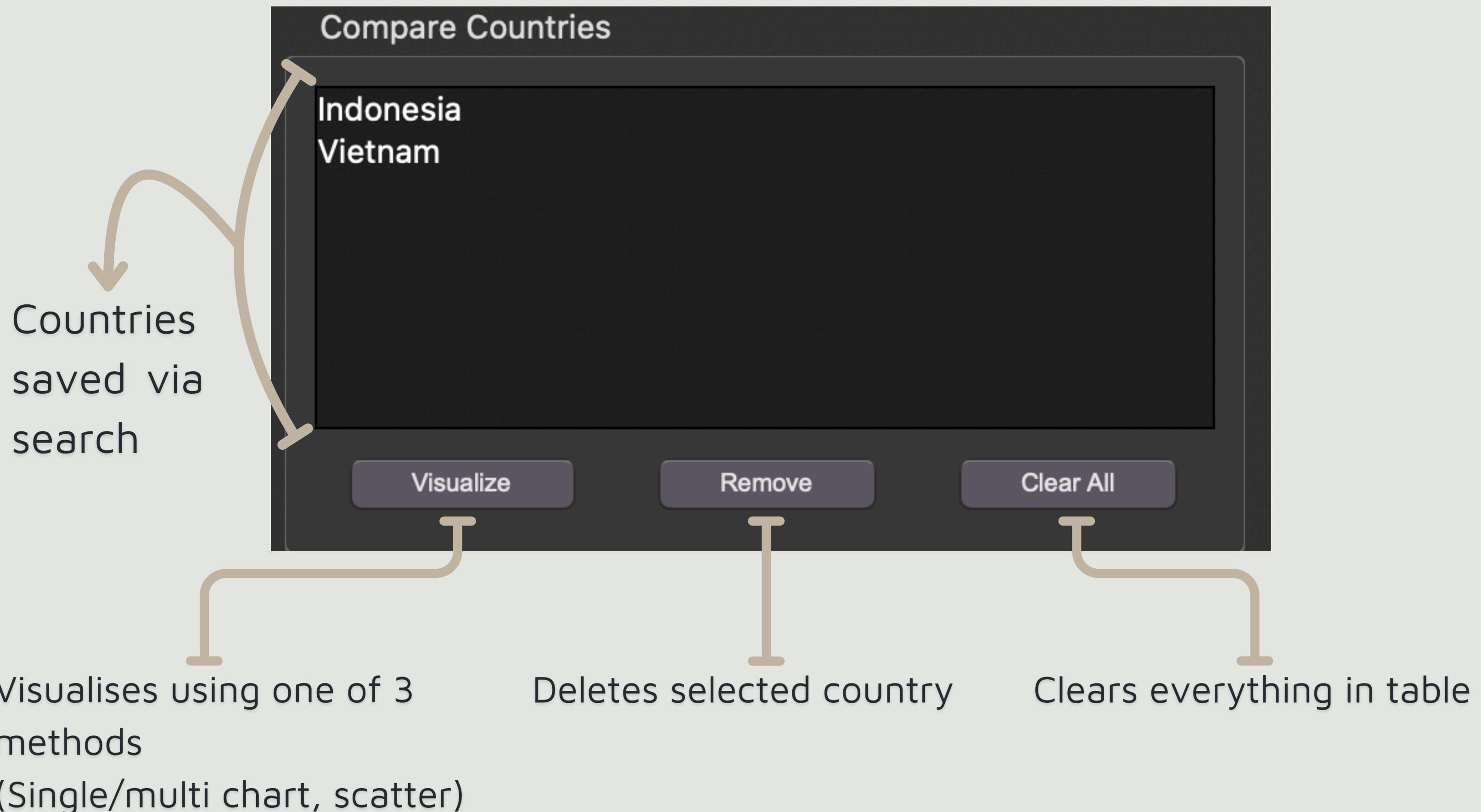
Search Country:

Allows the user to search loaded countries post-scrape.

The countries data(if available) will be displayed in the display section and the user can add said country to the compare section if desired



SECTIONS



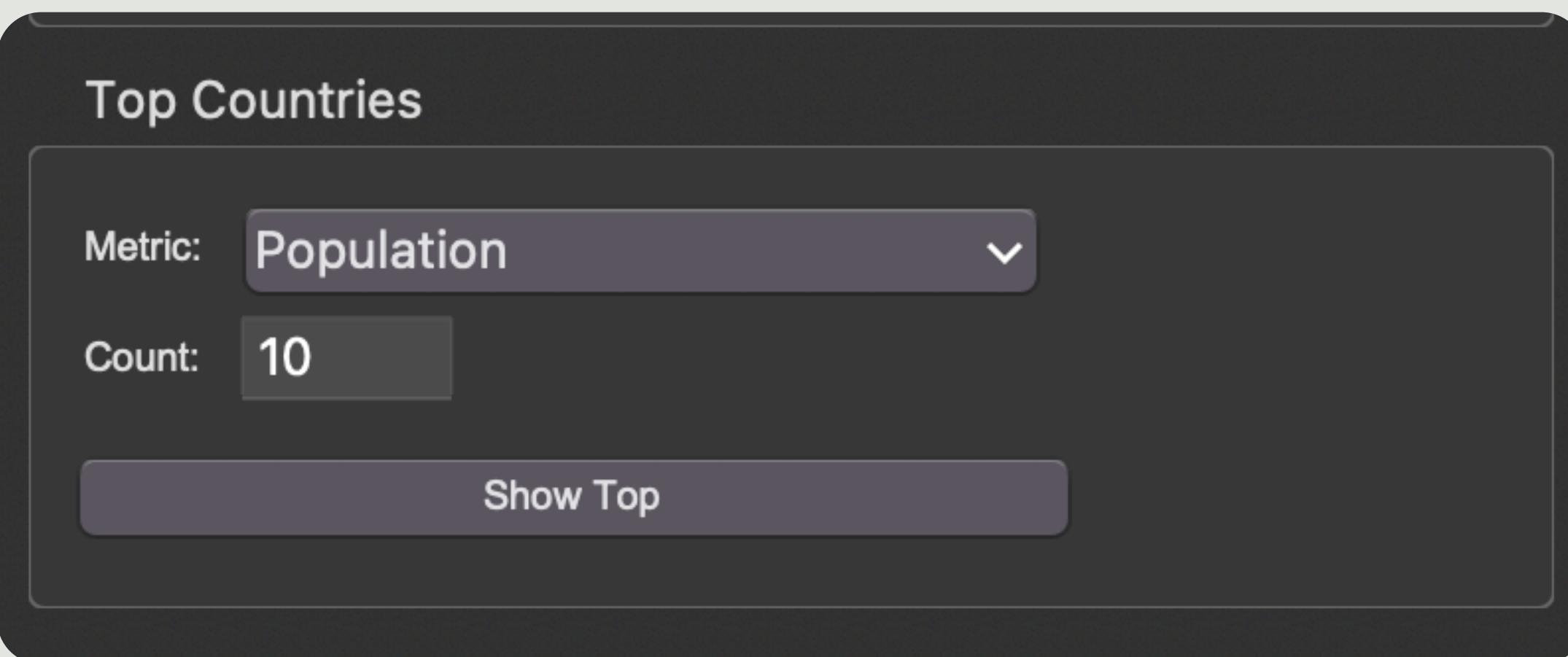
SECTIONS

Top Countries:

Made to display specifically the top 'n' amount of countries based on 'x' metric both are selected by the user.

Metric option includes:

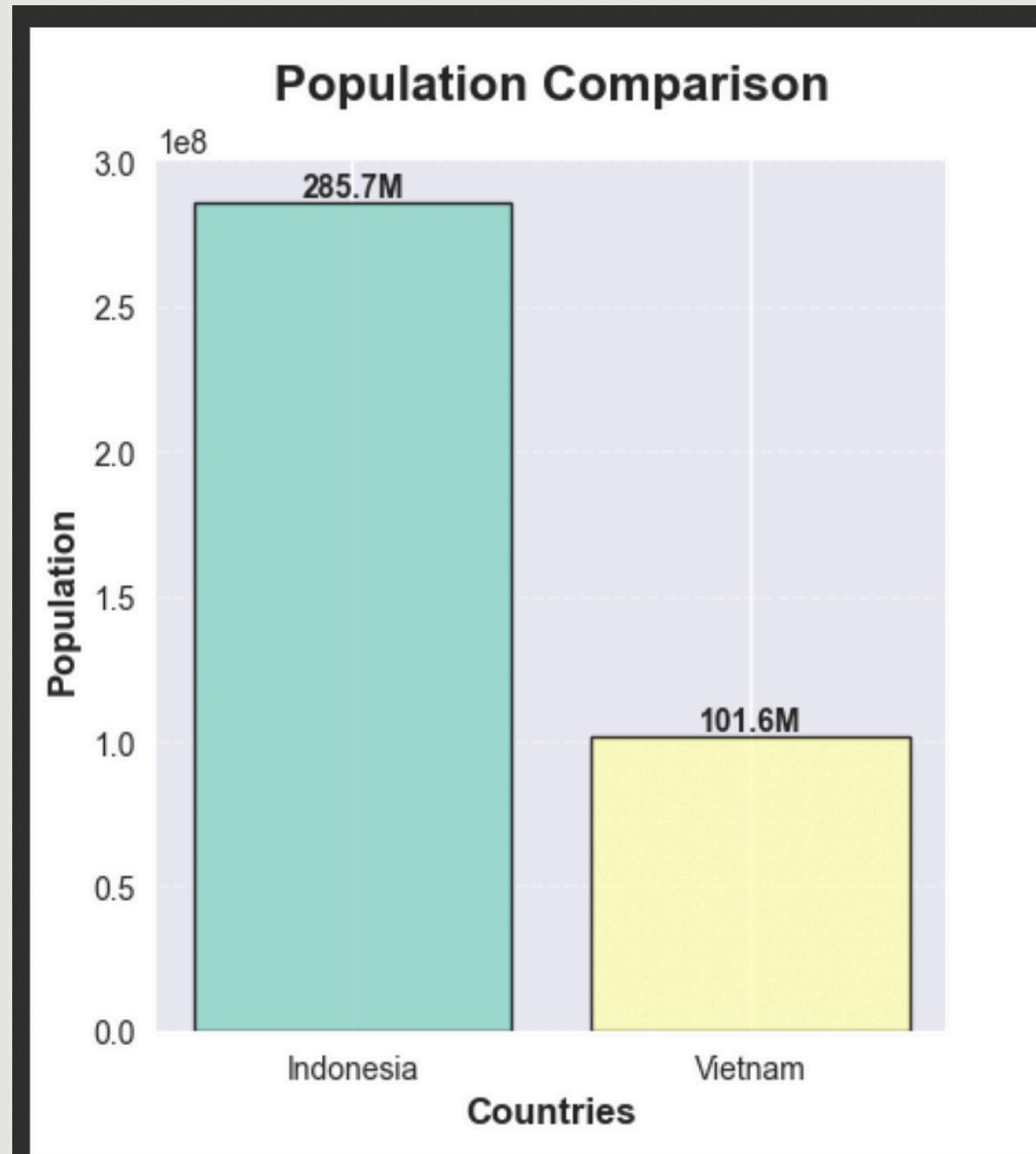
- Population
- Yearly change of population
- Population Density
- Land Area
- Fertility Rate
- Median Age
- Urban Population Percent



SECTIONS

Display:

Displays The information on selected Countries and/or the visualisation of selected compared countries



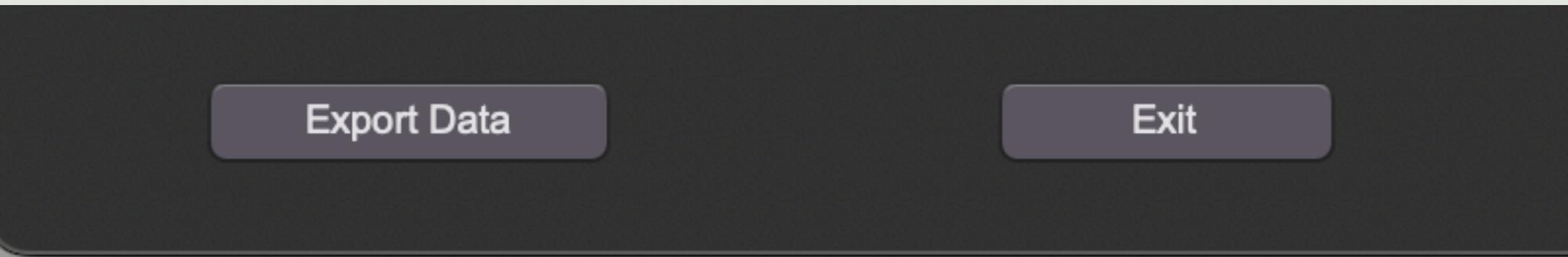
Country Info

Comparison Visualisation

SUB -SECTIONS

Export and Exit:

An Export function to export current selected data in the form of either .csv file or an Excel file depending on user preference



An exit button exits(quits) the program

SUB -SECTIONS

Top 10 Visualisation Window:

A window that shows a list of the top 10 metric that has been chosen my the user.

A button also provides a visualisation with the comparison of the countries listed.



Rank	Country	Population
1	India	1,463,865,525
2	China	1,416,096,094
3	United States	347,275,807
4	Indonesia	285,721,236
5	Pakistan	255,219,554
6	Nigeria	237,527,782
7	Brazil	212,812,405
8	Bangladesh	175,686,899
9	Russia	143,997,393
10	Ethiopia	135,472,051

REFERENCE

Link Name: <https://www.worldometers.info/>

Brief Description: data source

Link Name: <https://docs.python.org/3/library/tkinter.html>

Brief Description: Python GUI Interface toolkit

Link Name: <https://www.selenium.dev/documentation/>

Brief Description: Python scrapping toolkit

Thank You

For your attention