

# 8. Geo-visualization of thematic data using Choropleth

*Prepared by Prajwal Singh*

## Goal

- Geo-visualization of thematic data using Choropleth

## Details

- Use Choropleth map to show the population variation among the states of India.

## Data Preparation

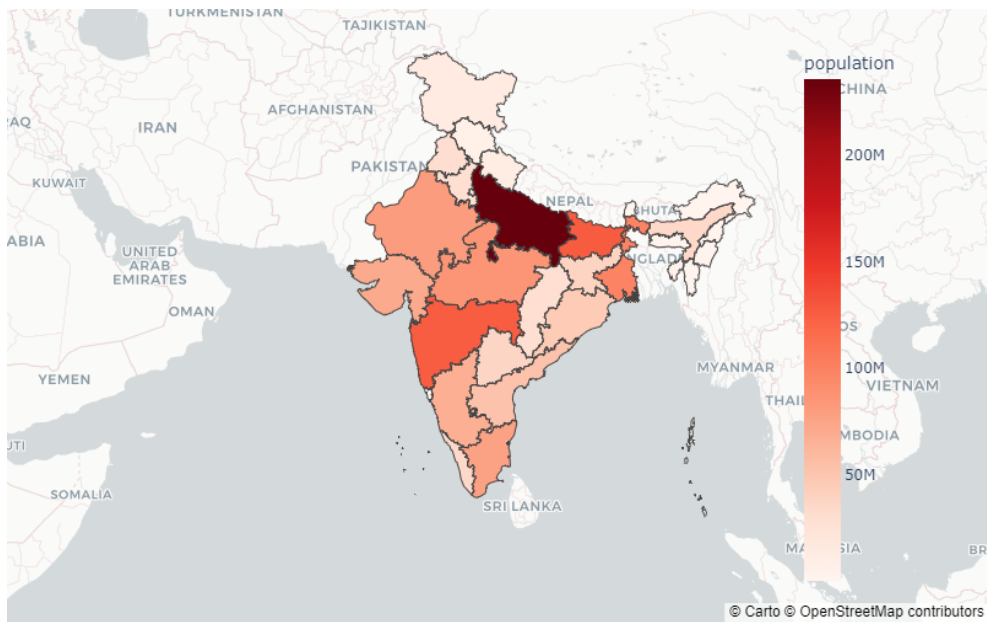
- Geo-visualization needs geometric information about the geographical location/space.
  - That data may or may not be available with the thematic data.
  - If it is not available in the data file then it must identify the location/space by the commonly accepted identity of the geographical location/space.
  - The identity may be simply a name, ex: Delhi, India, etc... Or an ISO code for the state, or country.
  - For ISO Code of Indian State: [https://en.wikipedia.org/wiki/ISO\\_3166-2:IN](https://en.wikipedia.org/wiki/ISO_3166-2:IN)
  - For ISO Codes of 3166 Countries listed together, visit the following website: [https://en.wikipedia.org/wiki/List\\_of\\_ISO\\_3166\\_country\\_codes](https://en.wikipedia.org/wiki/List_of_ISO_3166_country_codes)
- It is the responsibility of the geo-visualization creator to acquire the geometric data from standard sources and relate the identity of the geographical location/space to the geometrical data.
- You may use geometrical information of the Indian states and Union territories from <https://github.com/HindustanTimesLabs/shapefiles>
- NOTE: CSV data file is available containing the estimated 2023 population of the Indian states and most of the Indian Union Territories.
- The data has been assembled from a table in the following website <https://www.findeasy.in/top-indian-states-by-population/> and it very well provides a guaranteed one-to-one correspondence between the names in the data file and properties.ST\_NM key of the feature dictionary of IndiaState.json file (available in the above-mentioned shapefiles folder).

## Data Visualization

- You may use plotly.express or geopandas for creating the choropleth map.
- For the purpose of the same, plotly.express provides two methods:
  - Px.choropleth
  - Px.choropleth\_mapbox

## Sample Image

- Using Px.choropleth\_mapbox



- Using Px.choropleth

