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**Project 2: World Population Analysis**

**Objective**

The Earth is populated with an incredibly diverse group of people spread across 195 countries, each person possessing their own unique set of qualities that separate them from the rest. With this project, we will build a web application that analyzes world population data and provides visual representations of its past and present trends in three areas: region of residence (country and continent), age group, and gender.

**Data**

* <http://databank.worldbank.org/data/home.aspx>
* <https://population.un.org/wpp/Download/Standard/Population/>

**Tools**

MySQL/SQLite, Plotly, D3, Python, Panda, SQLAlchemy, Leaflet, Flask, JavaScript, HTML, CSS, Bootstraps, Chart.ja/Underscore

**Deliverables** (more details to be added later)

1. APIs to provide data for the application
2. View with map/heatmap to provide world population overview
3. Dashboard with detailed population visualization by continent, country, year, age group, and gender with user-driven interaction.
4. Visual representation of population growth and trends

Tables Need to be created:

Countries:

id

name

code

continent

capital

latitude

longitude

Columns the following table should have:

id

country\_code

1960

1961

...

2017

Tables:

World Population

Population age 0-4 male

Population age 0-4 female

Population age 5-9 male

Population age 5-9 female

Population age 10-14 male

Population age 10-14 female

Population age 15-19 male

Population age 15-19 female

Population age 20-24 male

Population age 20-24 female

Population age 25-29 male

Population age 25-29 female

Population age 30-34 male

Population age 30-34 female

Population age 35-39 male

Population age 35-39 female

Population age 40-44 male

Population age 40-44 female

Population age 45-49 male

Population age 45-49 female

Population age 50-54 male

Population age 50-54 female

Population age 55-59 male

Population age 55-59 female

Population age 60-64 male

Population age 60-64 female

Population age 65-69 male

Population age 65-69 female

Population age 70-74 male

Population age 70-74 female

Population age 75-79 male

Population age 75-79 female

Population age over 80 male

Population age over 80 female

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