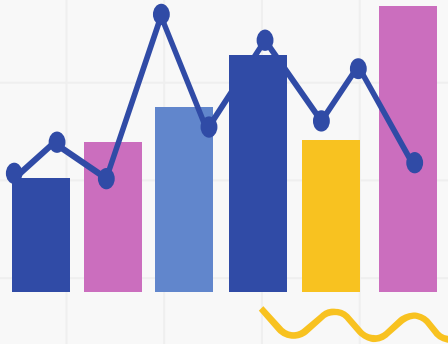
Correlation between Mental Health Disorder Rates and Global Demographic Factors

Shevya, Bay, Sarah, Tori, & Alice



Data Selection

Initial Data:

- Interest in global trends across variables such as mental health and crime rates

  Challenge: Struggled to find two compatible datasets that had significant data for analysis post-cleaning. Looked into SA rates dataset with drug and alcohol use disorder prevalence in different countries but this was too limited.

  → **Solution:** Combined data on mental health and crime(SA) into one dataframe;
  Added new dataset called "Gapminder" from R on global demographic factors

TOPIC: Correlation between Mental Health Disorder Rates and Global Demographic Factors

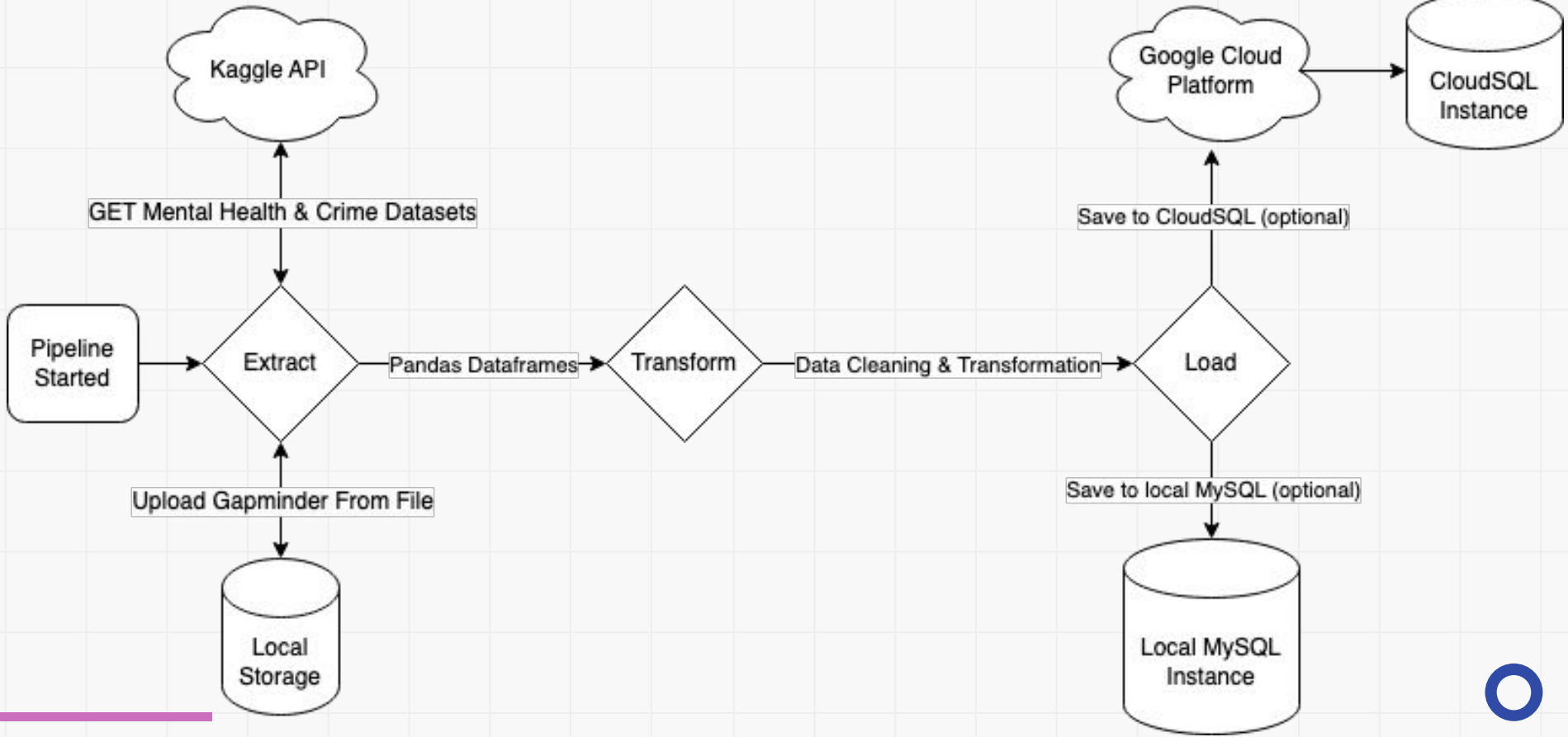
Data Cleaning:

- Combine our SA and Mental Health datasets on Entity and year to exclude all the data not present in both
- Removed unnecessary variables: ["Code", "Bipolar disorder (%)", "Eating disorders (%)"]

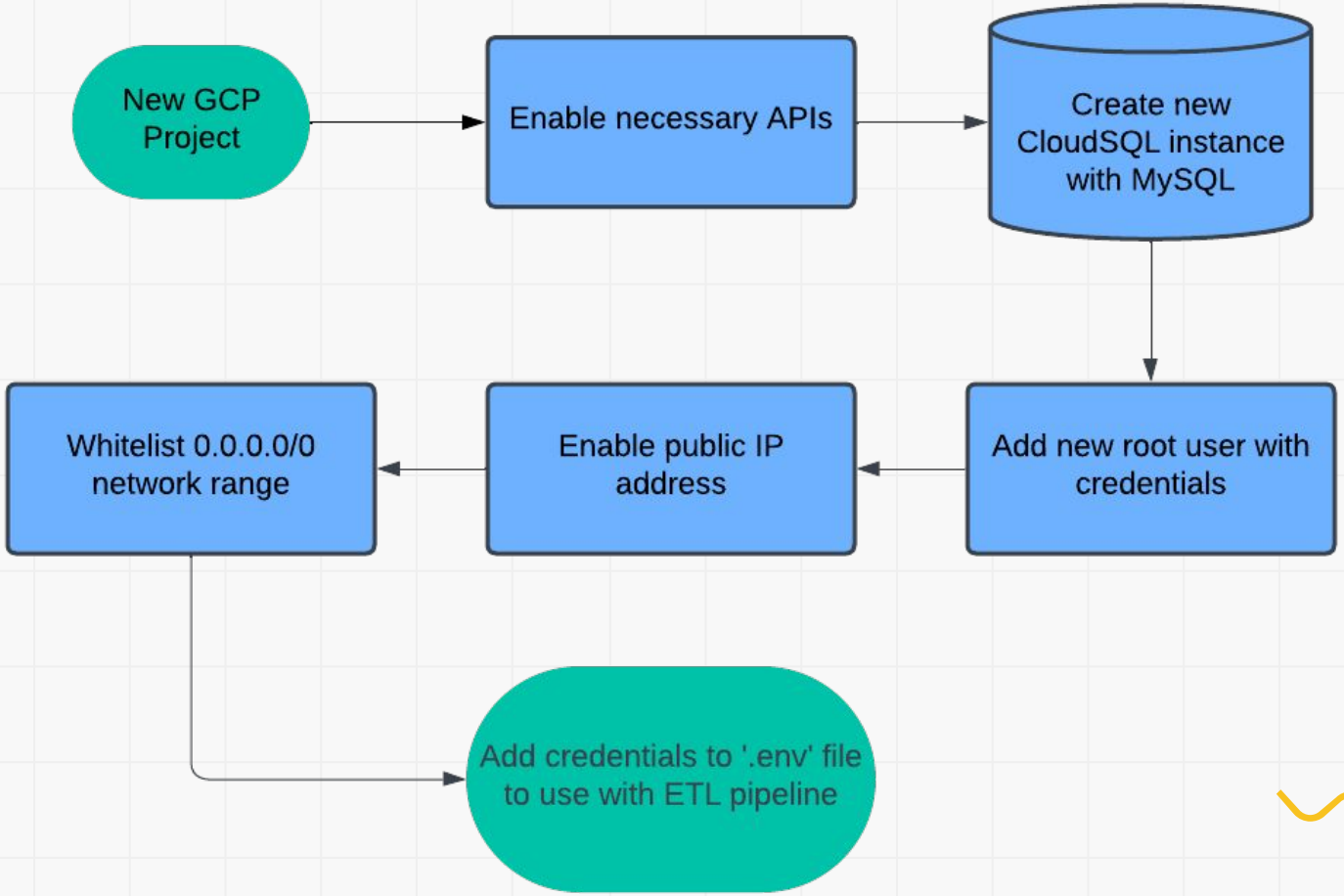
	Entity	Year	Schizophrenia (%)	Anxiety disorders (%)	Drug use disorders (%)	Depression (%)	Alcohol use disorders (%)	Sexual Violence Rate
0	Albania	2005	0.196538	3.385416	0.497503	2.223407	1.716585	2.832771

	country	year	infant_mortality	life_expectancy	fertility	population	gdp	continent	region
0	Belgium	2003	4.2	78.5	1.70	10426169.0	2.396593e+11	Europe	Western Europe

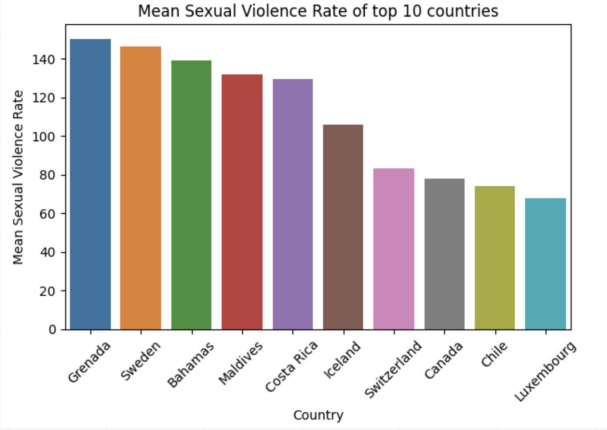
ETL Process

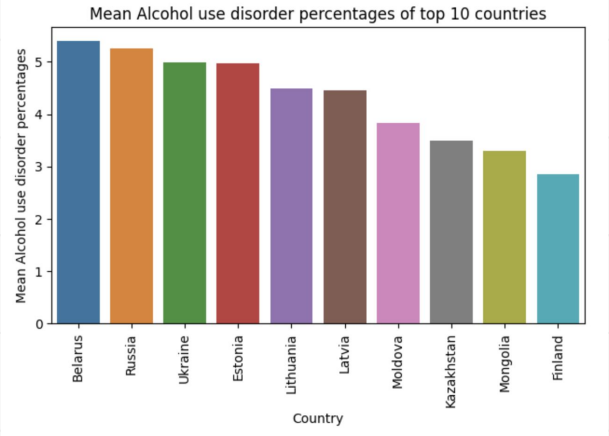

Kaggle API
GET Mental Health & Crime Datasets
Pipeline Started
Extract
Upload Gapminder From File
Local Storage
Pandas Dataframes
Transform
Data Cleaning & Transformation
Load
Save to CloudSQL (optional)
Google Cloud Platform
CloudSQL Instance
Save to local MySQL (optional)
Local MySQL Instance

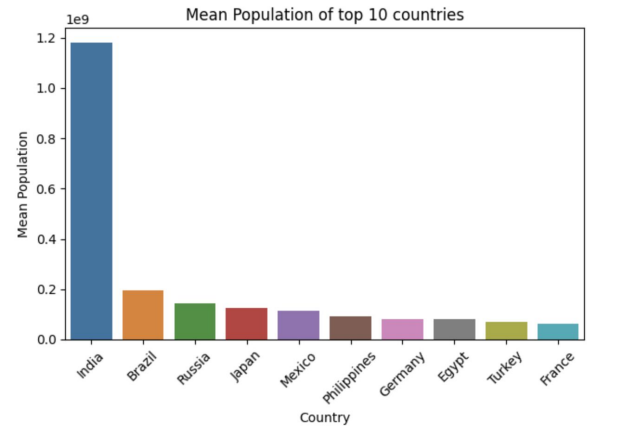
Cloud Storage



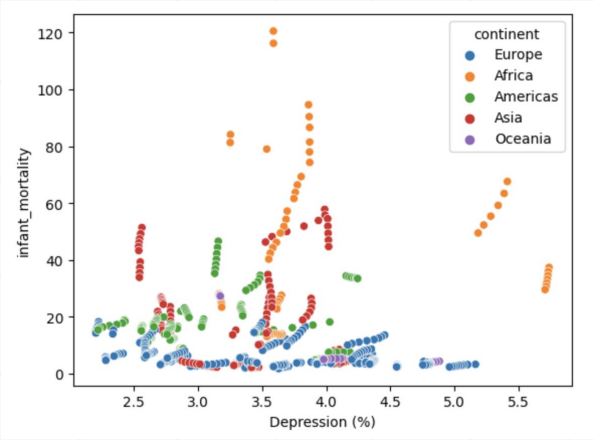
Analysis

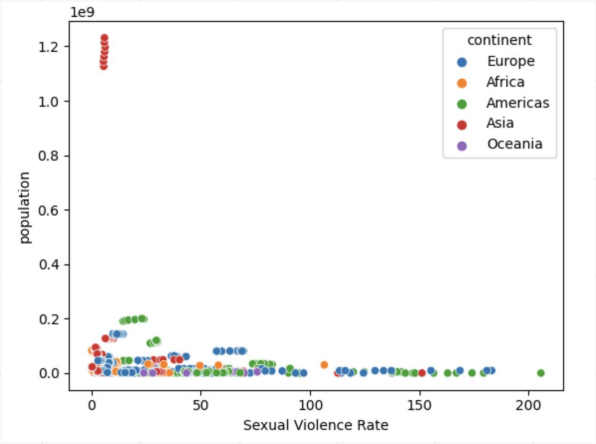

Mean Sexual Violence Rate of top 10 countries
Mean Sexual Violence Rate
0
20
40
60
80
100
120
140
Grenada
Sweden
Bahamas
Maldives
Costa Rica
Iceland
Switzerland
Canada
Chile
Luxembourg
Country

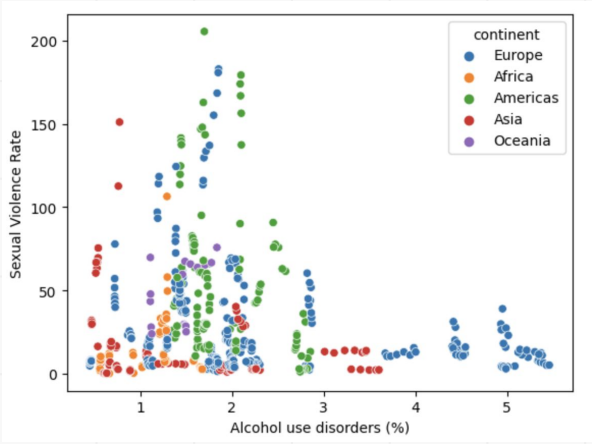

Mean Alcohol use disorder percentages of top 10 countries
Mean Alcohol use disorder percentages
0
1
2
3
4
5
Belarus
Russia
Ukraine
Estonia
Lithuania
Latvia
Moldova
Kazakhstan
Mongolia
Finland
Country

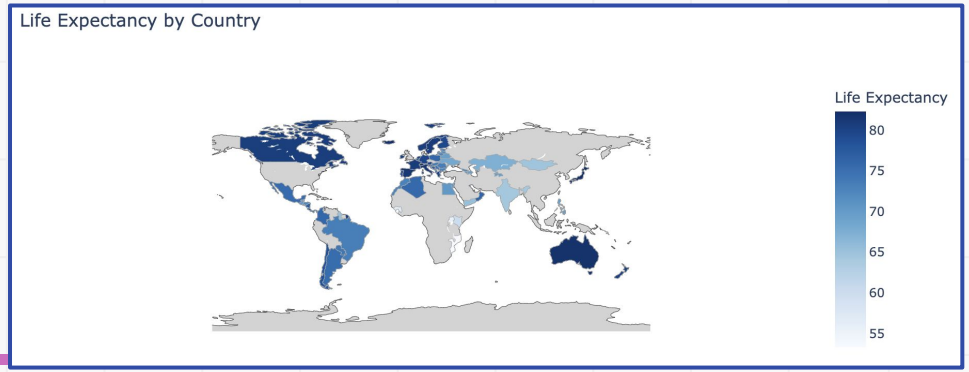

Mean Population of top 10 countries
1e9
Mean Population
0.0
0.2
0.4
0.6
0.8
1.0
1.2
India
Brazil
Russia
Japan
Mexico
Philippines
Germany
Egypt
Turkey
France
Country

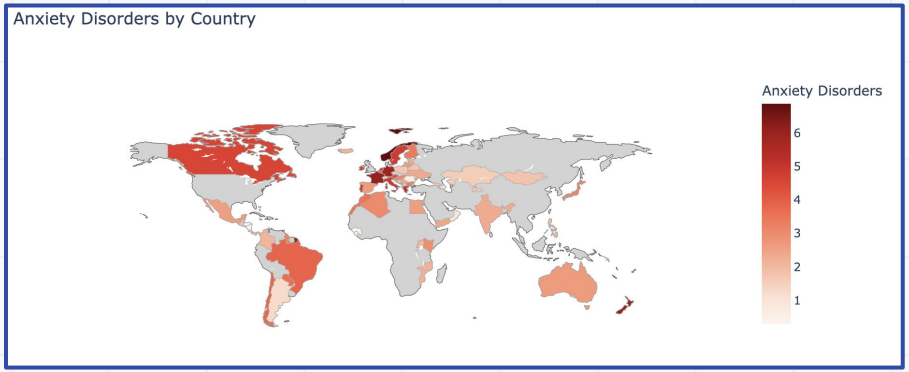
Analysis


continent
Europe
Africa
Americas
Asia
Oceania
infant_mortality
Depression (%)


1e9
continent
Europe
Africa
Americas
Asia
Oceania
population
Sexual Violence Rate


continent
Europe
Africa
Americas
Asia
Oceania
Sexual Violence Rate
Alcohol use disorders (%)


Life Expectancy by Country
Life Expectancy
80
75
70
65
60
55


Anxiety Disorders by Country
Anxiety Disorders
6
5
4
3
2
1