

# Group 4: Capstone Kickoff

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## Variables Used

- Underweight Adults (BMI below 18)
- Water Availability (% people with access to safe drinking water)
- Adult Mortality Rate (chance of death per 1000 people from age 15-60)
- Regions: countries grouped by



## **Exploratory Questions**

- Trends
- Correlations
- Comparisons
- Predictions



# Data Platform

- Kafka used to simulate real-time data gathering
- Azure Databricks used for data cleaning and transformation
- Azure Data Lake / Blob Storage used to temporarily store gathered data
- Azure Data Factory used to automate the above process
- SQL database used to store gathered data long-term
- PowerBI used for final visualizations



# Data Cleaning

- Filtered data by sex to only be average data between sexes
- Filtered aggregated data (such as “global” or “for a given continent”) out
- Used regional table to group countries
- For water and underweight, replace null values with the mean for the country’s region that year
- Filtering data to only use years 2000-2016, since those are shared. For machine learning, will be using entire span for a superior extrapolation.