Water Usage Efficiency of Data Centers in Africa

Who are we?

We are a sustainability consultancy supporting governments and institutions in assessing data center efficiency.

Our mission?

Use **data science** to evaluate how climate conditions impact data center water efficiency

Dataset

Challenges:
- Size
- Data granularity → city x hour
- Heterogeneous data structure

Solutions:
- Variable selection
- Aggregate data → country x month
- Unify data structure

Project goal

Study how **climate conditions** (temperature, humidity...) affect onsite **water efficiency** of data centers across African climate regions.

Analysis plan

- Data cleaning and aggregation
- Descriptive statistics (means, distributions)
- Comparisons across climate regions
- Visualizations
- BONUS: Simple regression linking climate variables to water usage efficiency

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