World Happiness Analysis using Amazon Quicksight

Cloud Computing Final Presentation

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Amazon Quicksight:

A cloud-based business intelligence service for analytics, data visualization, and reporting.

Why Amazon Quicksight?

- Leverage machine learning (ML):
  - Generate insights and predictions
  - Answer your questions (Quicksight Q)
- Speed:
  - The in-memory engine “SPICE”
- Security:
  - No need to manage granular database permissions
- Flexible pricing models (no need to purchase license)

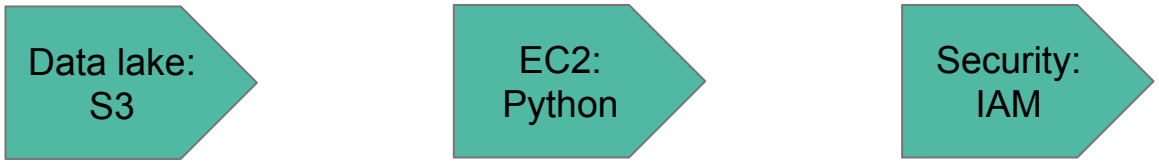
Project scope

- Visualize the happiness level of the happiest countries vs. the unhappiest countries
- Underlying factors that can influence the subjective happiness

Project scope (cont'd)

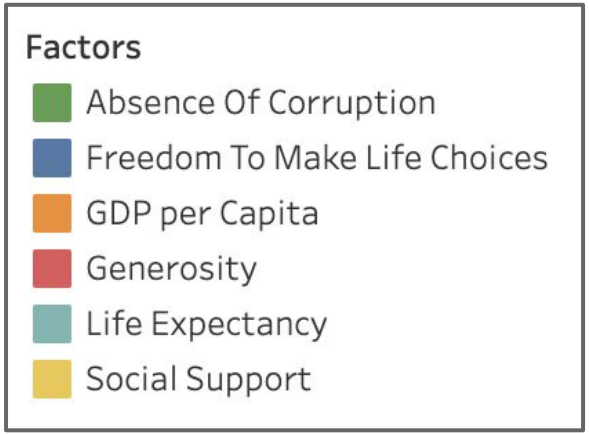
AWS services that will be used:

- Quicksight Enterprise edition (30-day free trial)
  - Authors & readers
  - Quicksight Q not included
- Simulate the end-to-end workflow of a data analyst/scientist using AWS services
  - Import data → Preprocessing + Analysis →Publish + Share results



Features and data source

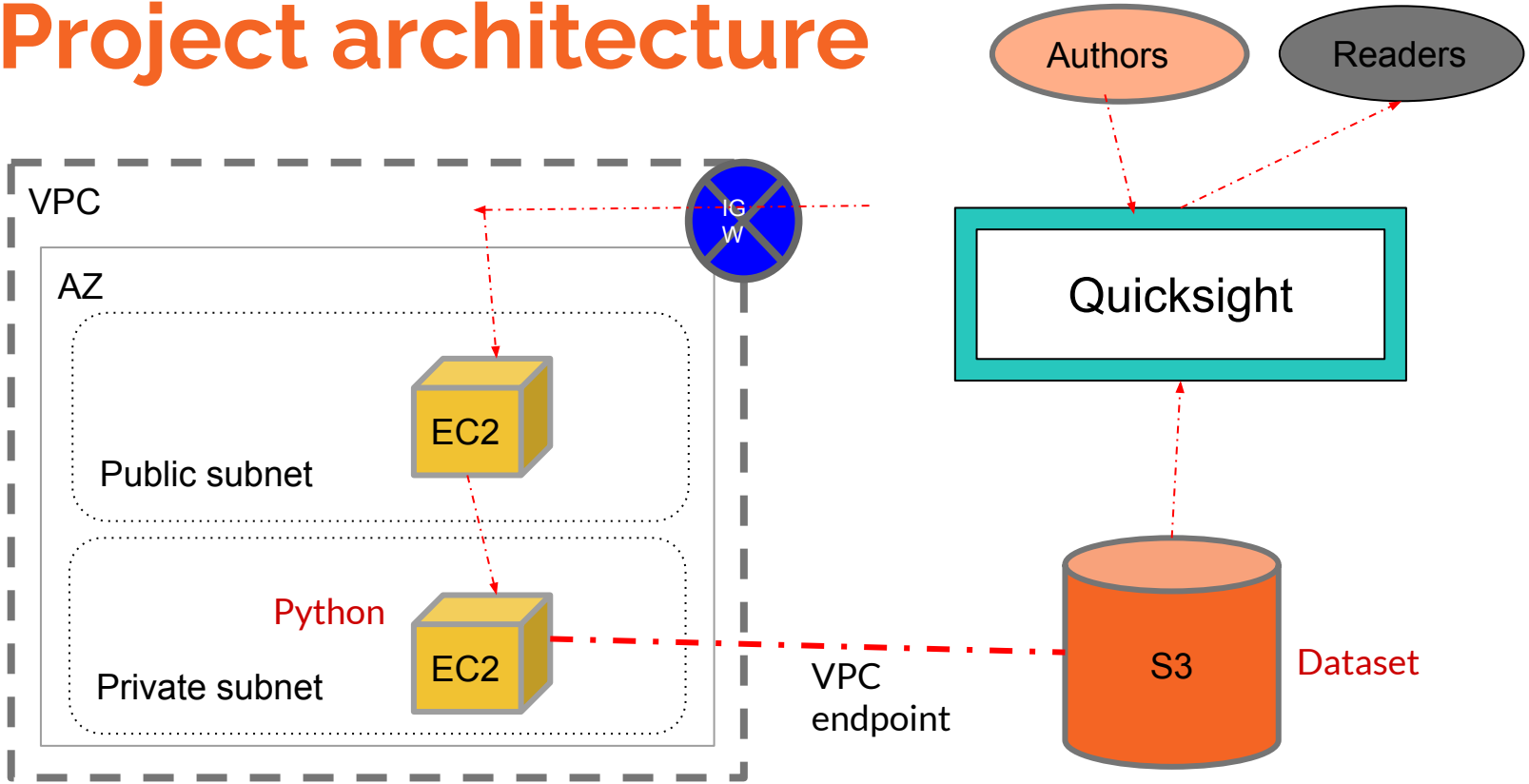
- Gallup world happiness dataset (downloaded from Kaggle.com)
  - 150+ countries
  - 2015 - 2019
  - Happiness score, rank, country, region, six underlying factors



Expected outcomes

- **People in developed countries are happier because…**
  - Less corruption
  - More freedom to make life choices
  - Higher GDP per capita
  - Live longer
  - More generous?
  - More social support?

Project architecture



Project implementation - Demo

- **Analysis results:** World happiness dashboard
- **Quicksight features demo:**
  - Importing data from S3
  - Dashboard special features (e.g., insights)
  - Security
    - User permission
    - IAM role assignment

Thank you!

Appendix - Poll questions

- **Happiness:** “Value your life today on a 0 to 10 scale, with the worst possible life as a 0 and the best possible life as a 10.”
- **Social support:** “If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?”
- **Freedom to make life choices:** “Are you satisfied or dissatisfied with your freedom to choose what you do with your life?”
- **Generosity:** “Have you donated money to a charity in the past month?”
- **Perceptions of Corruption (Reverse-coded):** “Is corruption widespread throughout the government or not?” and “Is corruption widespread within businesses or not?”