Marketing Analytics - Lab

ICE BREAKER

- Tutor:

- How about U? – Introduce your Peers

BUSINESS SCHOOL

Agenda

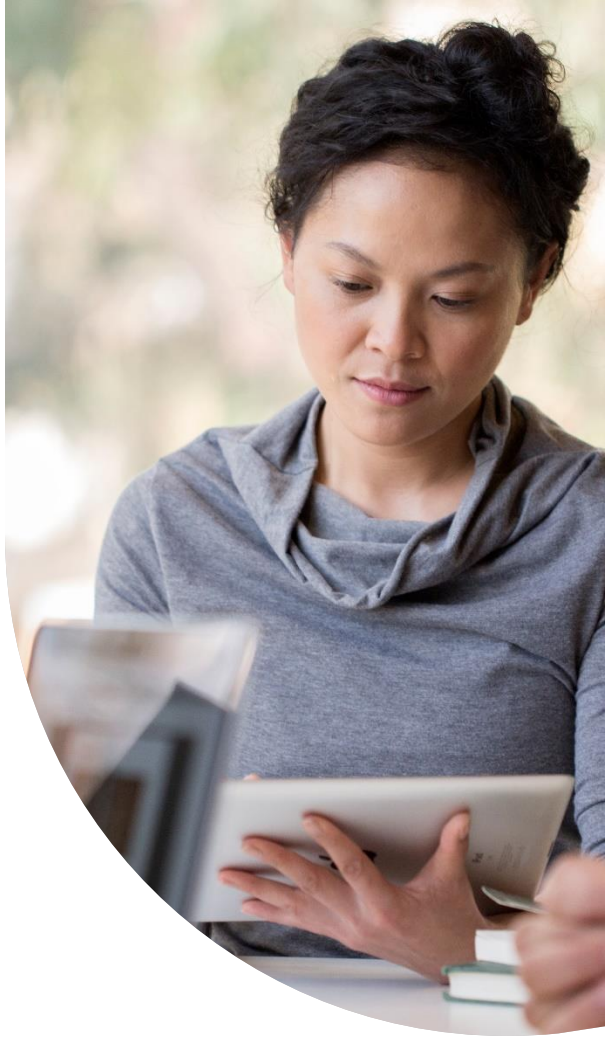
Week 1 - Introduction to Data on the Google Cloud Platform (GCP)
Week 2 - Getting Started with SQL and Immersive Data Insights in Marketing Analytics
Week 3 - Transaction Analysis 1: Data Clean and Transaction Analysis
Week 4 - Transaction Analysis 2: Segmentation and Partition
Week 5 – E-commerce Analytics 1
Week 6 - E-commerce Analytics 2
Week 7 – Unstructured data Analytics: using BigQuery ML and Vertex AI
Week 8 - Case Study: ESG Initiatives: Reducing Carbon Emissions via Green Commute with E-Scooter Projects
Week 9 - Business Report with Data Visualization
Week 10 - Build Dashboard and Public data exploration

Week 1 Introduction to Google Cloud Platform

Google Cloud Platform

Analytics Challenges Faced by Data Analysts

- *"My queries are taking way too long to run and is stalling my analysis."*
- *"I have no easy way to combine and query all the data I've collected"*
- *"We're a data department, not an infrastructure department. Maintaining and upgrading our own servers is unsustainable."*
- *"My on-premise clusters aren't scaling with my analysis"*
- *"We can only afford to store a subset of the data our business generates"*
- *"We don't have a central data analytics warehouse or set of tools"*



Discussion 1: Based on the above comments and your experience, what are the challenges faced by data analysts?

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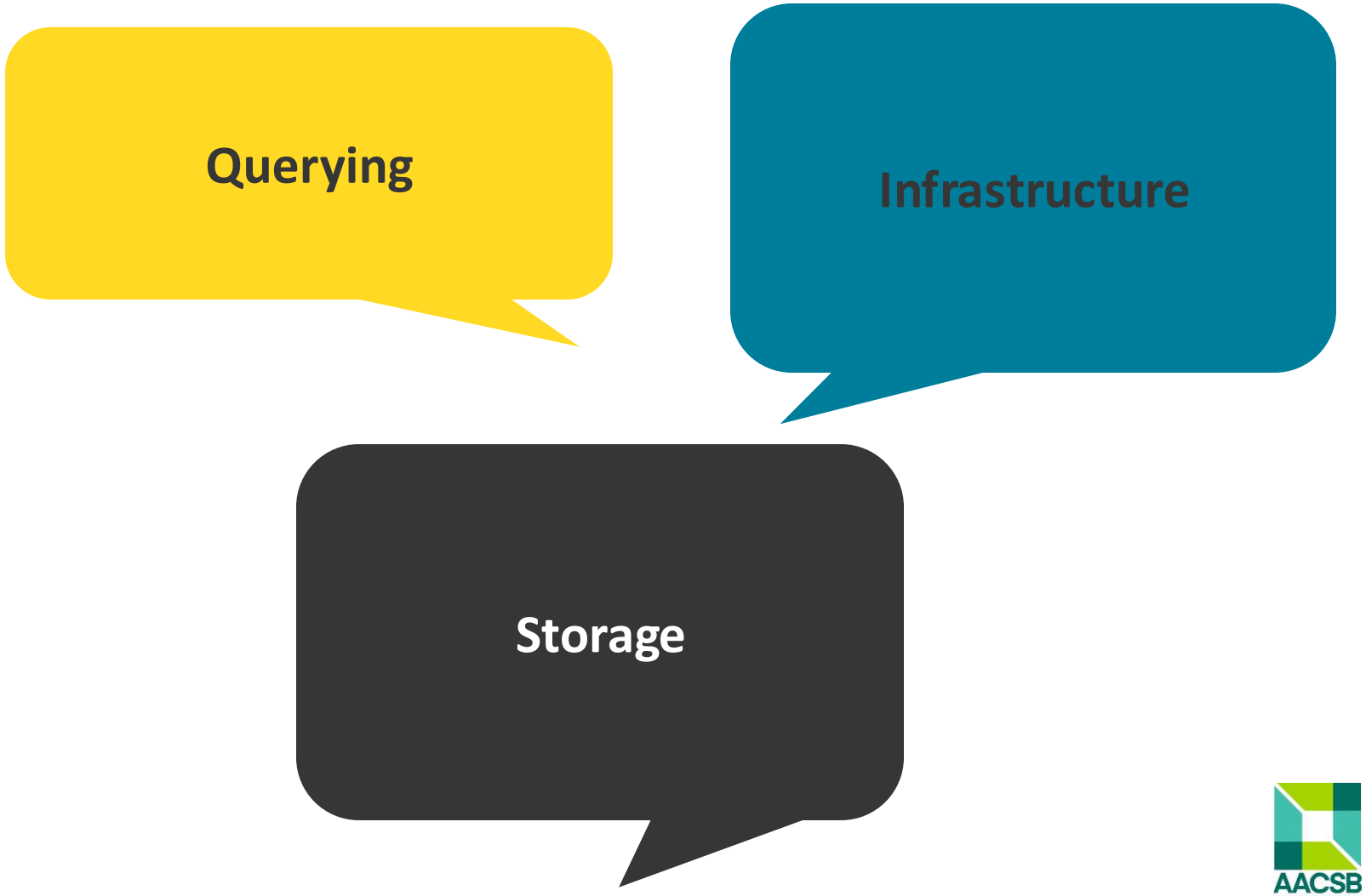


Discussion 2: Pros and Cons of data on Cloud and on-premise

Reasons why Google Cloud Platform is used for Data Analysis

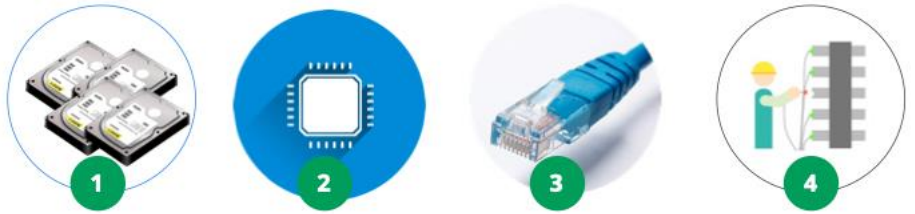
Storage is Cheap

Focus on Queries, not infrastructure

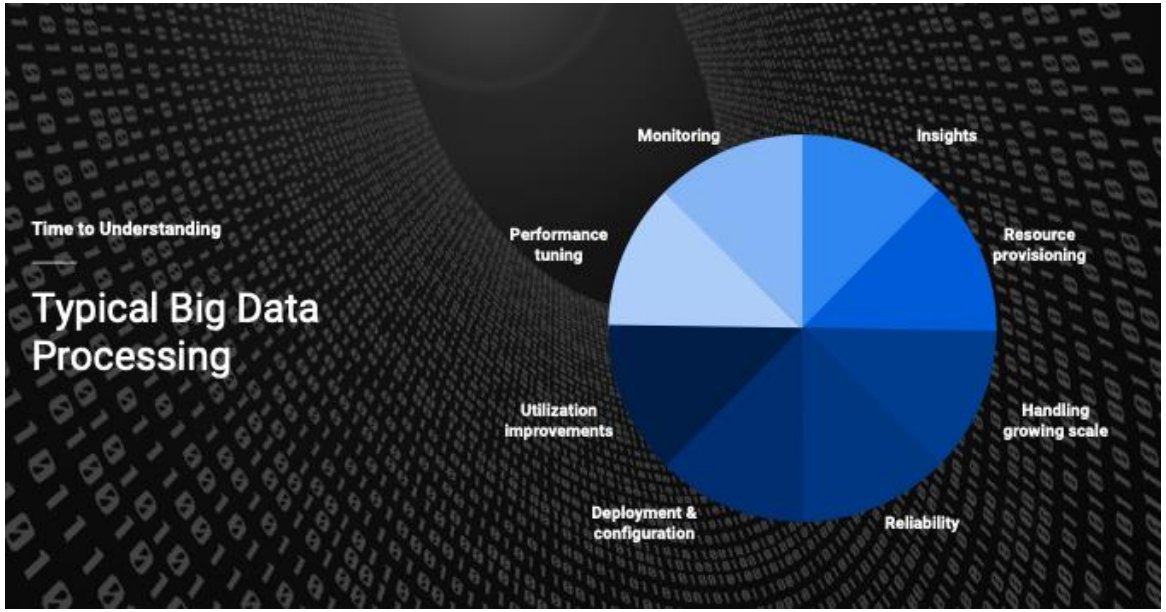
- Traditional big data platforms require an investment in infrastructure

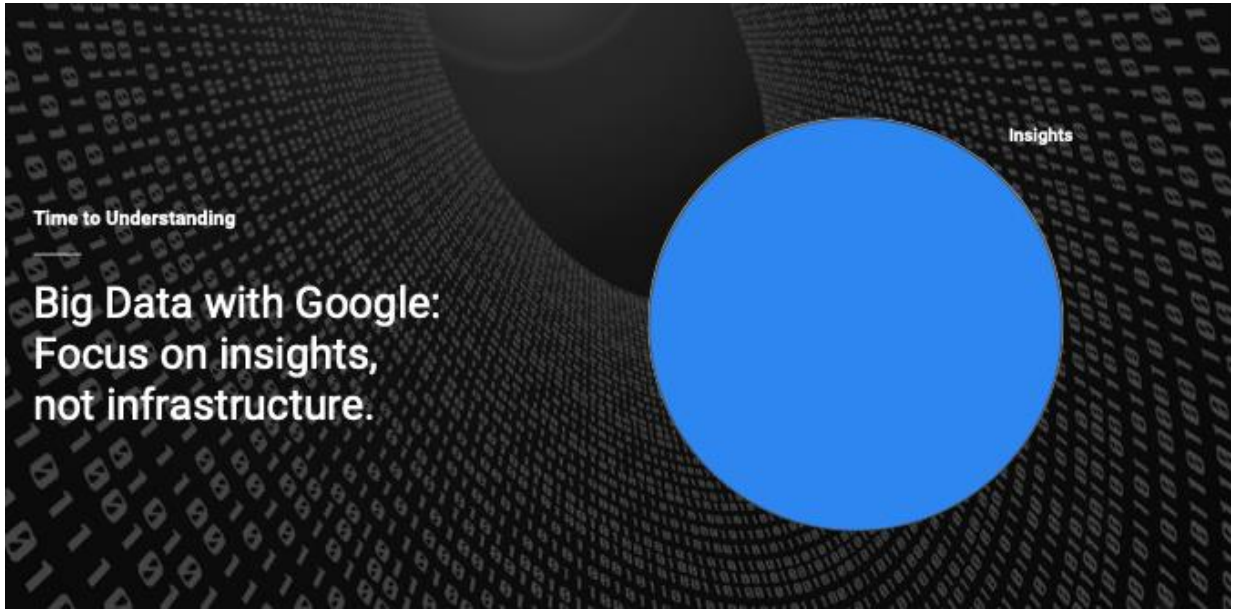
Although hard drives are cheap, they're not the only thing you need to have to query big data.

- **Essentials:**
  - **1 – Storage**
  - **2 - Computing Power**
  - **3 – Networking**
  - **4 - Admin and hardware teams to maintain and upgrade your infrastructure (Not to mention software and software license costs)**



Reasons why Google Cloud Platform is used for Data Analysis: Massive Scalability





Key Insights: Google Cloud Platform Vs Traditional Database

Scale with data growth even as it explodes

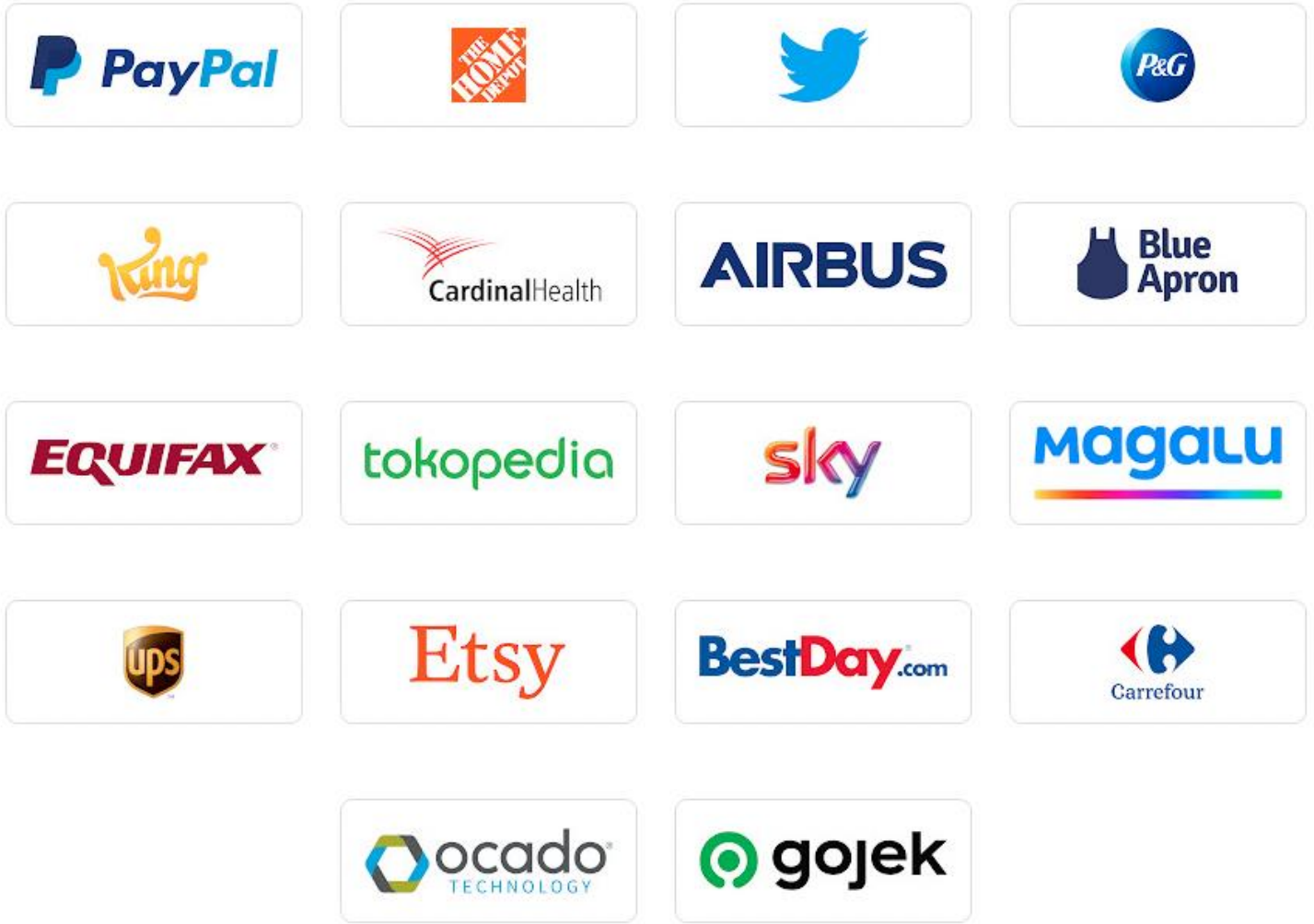
Are managed so that you aren't wasting time on dealing with all of the underlying complexities

Are just generally magically awesome so you can get back to data insights

Read Real-World Use Cases of Companies Transformed through Analytics on the Cloud

- **Twitter**
- **JB Hi-Fi**
  - Increasing revenue and improving the relevance of recommended products with Recommendations AI
- **Target**
  - “We want to be a positive force behind millions of people, every day. If we’re going to keep doing that, we need a cloud technology that focuses on experiences. That’s elegant, simple, and adaptive. That doesn’t lock us in.” (Krishnan Srinivasan, Vice President of Cloud and Compute Infrastructure Platforms, Target)

Leading companies around the world are choosing Google Cloud



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Navigate Google Cloud Platform Project Basics

Project

Resources

Billing

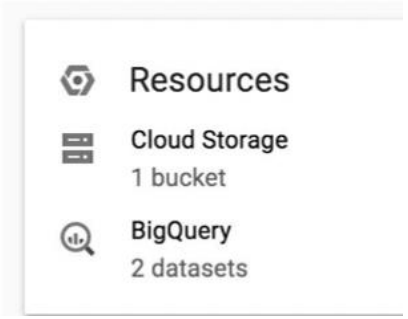
Projects organize and govern your activities in the cloud

First of all, a project is required to use Google Cloud Platform, and forms the basis for creating, enabling and using all Cloud Platform services, managing APIs, enabling billing, adding and removing collaborators, and managing permissions.

All projects consist of the following:

- Two identifiers:
  - Project ID, which is a unique identifier for the project.
  - Project number, which is automatically assigned when you create the project. It is read-only.
- One mutable display name.
- The lifecycle state of the project; for example, ACTIVE or DELETE_REQUESTED.
- A collection of labels that can be used for filtering projects.
- The time when the project was created.

Resources are what you are using in the cloud



Commonly used by data analysts

- **Storage in Google Cloud Storage**
  - Example: You use a Bucket for uploading large CSV files to ingest later for analysis
- **Datasets** in Google BigQuery
  - Example: You perform analysis on raw data and create a brand new dataset

The Cloud Storage Bucket is your goto for scalable storage

- Buckets are scalable containers that hold your data.
- You can create and upload files to your buckets within your Cloud Console

You are billed for the resources you use

Commonly used by data analysts:

- **Storage** in Google Cloud Storage
  - Billed for Bucket Storage
- **Datasets** in Google BigQuery
  - Billed for Query processing
  - Billed for Table Storage

Walkthrough guide on enabling billing to look at BigQuery usage: https://cloud.google.com/billing/docs

Marketing analytics with Google Cloud