# Cloud Computing for Beginners

## Database Technologies

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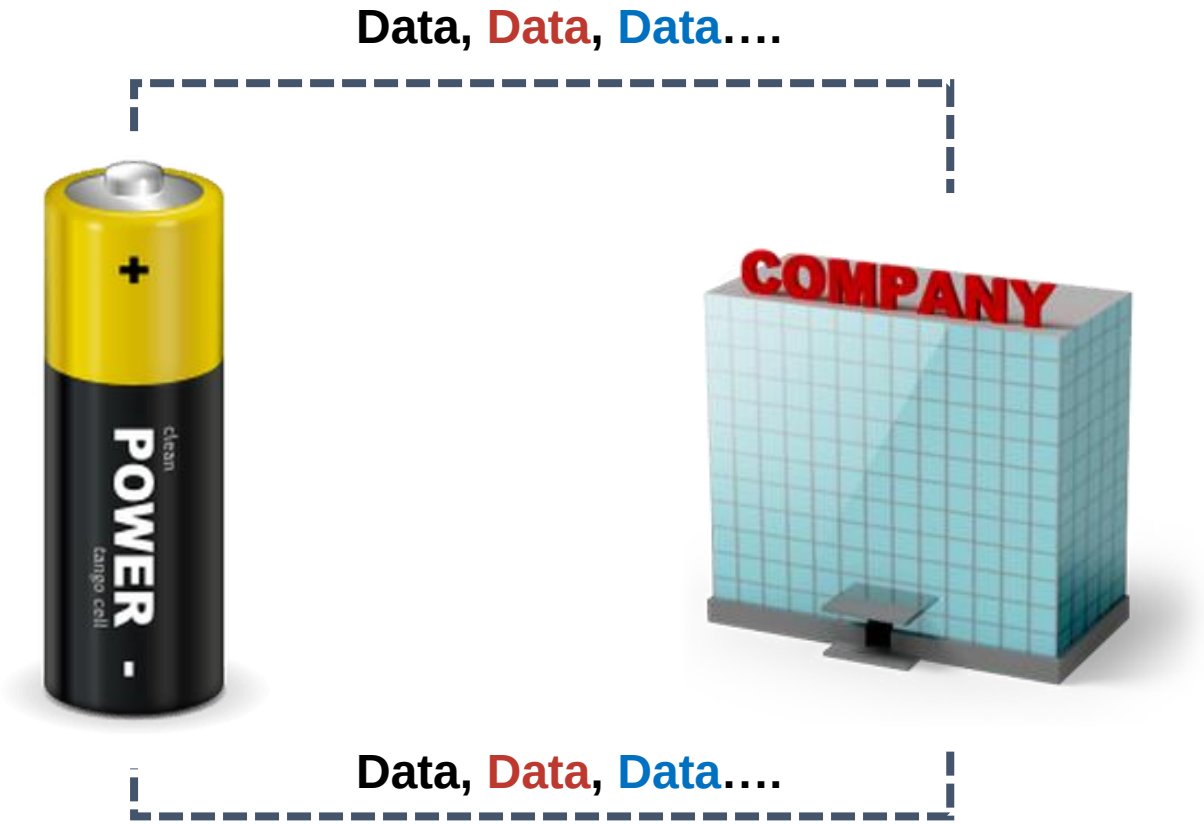
Getting Started
Data is Everywhere!
INDIAN OCEAN
AUSTRALIA
INDONESIA
MALAYSIA
CHINA
INDIA
PAKISTAN
IRAN
IRAQ
SAUDI ARABIA
AFRICA
MADAGASCAR
MAURITIUS
SEYCHELLES
MALDIVES
SRI LANKA
MYANMAR
THAILAND
VIETNAM
CAMBODIA
MONGOLIA
KAZAKHSTAN
TANZANIA
KENYA
ETHIOPIA
SOMALIA
SUDAN
YEMEN
OMAN
ARABIAN SEA
BAY OF BENGAL
SOUTH CHINA SEA

# Data is Everywhere!

Storing and Handling Data

Storing Container & Engine

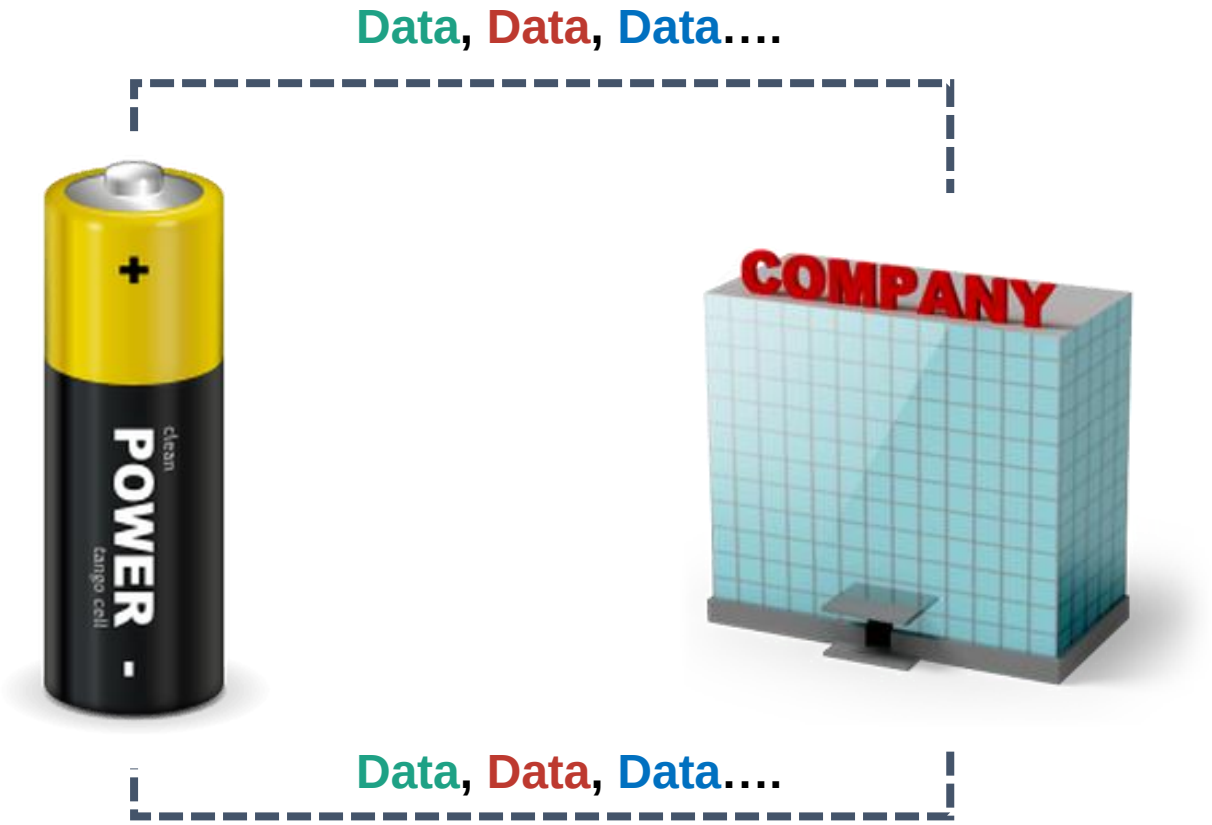
- Flexible
- Fast
- Reliable
- Easy to manage
- Cost-effective




What's going on?

# Data is Everywhere!

Storing and Handling Data

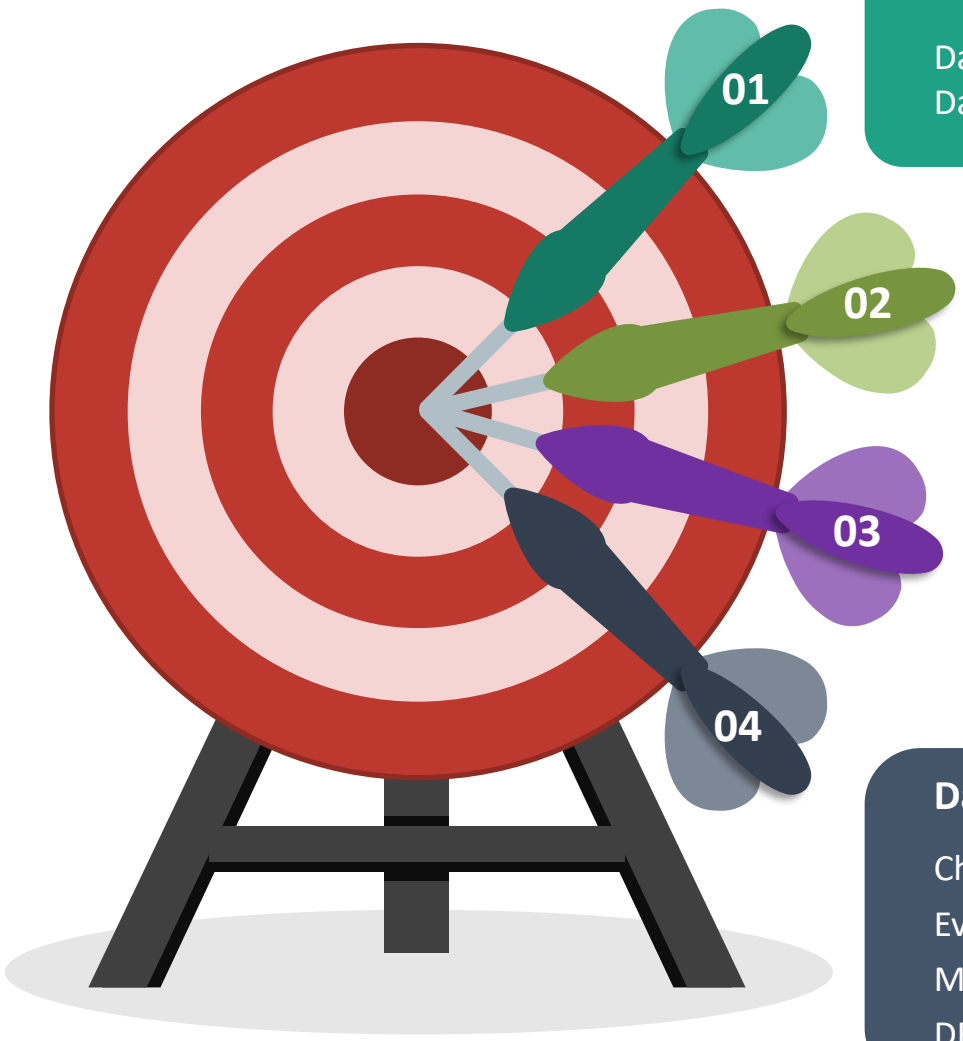


# Data is Everywhere!

Storing and Handling Data

- **Modern Application Requirements**
  - **More data types**
    - Transactions, text, logs, IoT sensors, images, videos…
  - **Higher volumes of data**
    - Millions of IoT wearable sensors, Millions of end-users accessing a website…
  - **Longer retention time**
    - Analytics use cases (historical patterns, predication, forecasting)
    - Machine learning use cases
- **Databases**
  - **Containers** to store data
  - Backend power-horse of all applications
  - Selecting the **right** **database technology** for the **right** **use case**
- **Our Training**
  - Database technologies
  - A database as a cloud-service (AWS, Azure, GCP)

# Our Learning Objectives




**Database Terminology**

Database, DBMS, Schema, Operational/Analytics
Data Warehouse/Lake, ETL/ELT, Scale up/out

**Database Technologies**

SQL DB, NoSQL DB, Distributed SQL DB
In-memory DB, Time-series DB
[Concept + Benefits + Use Cases]

**Types of NoSQL Databases**

#1 - Key-Value, #2 - Document
#3 - Wide Column, #4 - Graph

**Database as a Service (DBaaS)**

Challenges of traditional databases
Evolution into DBaaS model
Main Benefits
DBaaS portfolio – Azure, AWS, GCP