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classmate

Date _____
Page _____

↓

Setting the Azure Lab.
login to the Lab.

- ① Connect
- ② Generate link
- ③ Enter id/Password. - temporary

Hosting the cloud platform

Databricks is hosted on AWS cloud platform (Azure)

Databricks hosted on open source - Databricks.com.

PySpark - Databricks (Open Source)

Azure + Databricks → cloud + Databricks → cloud Databricks.

Microsoft Azure

→ Azure is a cloud computing platform.

Cloud - It is used to describe a large agglomeration of objects that visually appear from a distance.

→ It is a continually expanding set of cloud services that help your organization meet your current and future business challenges.

→ It gives you the freedom to build, manage, and deploy applications on a massive global platform network using your favorite tools.

Cloud Computing.

→ IaaS → Information as a service - host

→ PaaS → Platform as a service - build

→ SaaS → Software as a service - consume

↳ Eg:- Gmail

Why the cloud?

- Rapidly setup environments to drive business priorities
- Scale to meet peak demands.
- Increase daily activities, efficiency and reduced cost.

speed

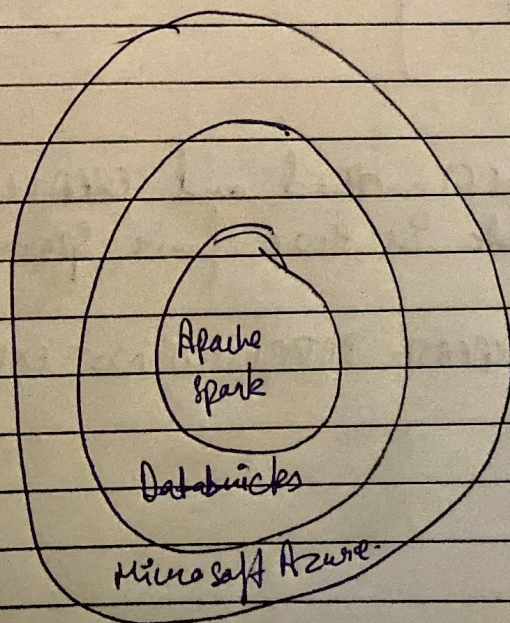
Scale

Economics

Core cloud services.

- Azure Compute options
(virtual machines, containers, Azure App Service, serverless computing)
- Azure data storage options.
- Azure network options
- Azure IoT.

Azure Databricks



Apache Spark

→ It is a lightning-fast unified analytics engine for big data processing and machine learning.

- 100% open source under Apache licence
- Simple and easy to use API's
- In memory processing engine
- Distributed computing platform
- Unified engine which supports SQL, Streaming, ML and graph processing.

What Spark can do on databricks

① ML Flow

② Clusters

③ Workspace/Notebooks

④ Administration and controls

⑤ Optimized spark (so faster)

⑥ Databases/Tables

⑦ Delta lake

⑧ SQL Analytics

Azure Databricks Integration.

- Unified Azure Portal + Unified billing
- Data Services:- Azure Data Lake, Azure Blob Storage, Azure Cosmos db, Azure sql database, Azure Synapse.
- Messaging Services:- Azure IoT Hub, Azure Event Hubs
- Power BI
- Azure ML
- Azure Data Factory
- Azure Dev Ops
- Azure Active Directory

Azure Databricks Architecture

