

Assignment-16

Name-Ajay Chaudhary
Batch- Data Engineering (Batch-1)

Handwritten notes-

Microsoft Azure

Azure is Microsoft's cloud computing platform.

Azure is continually expanding set of cloud services that help your organization meet your current

Cloud computing

IaaS

Infrastructure-as-a-Service

host

PaaS

Platform-as-a-Service

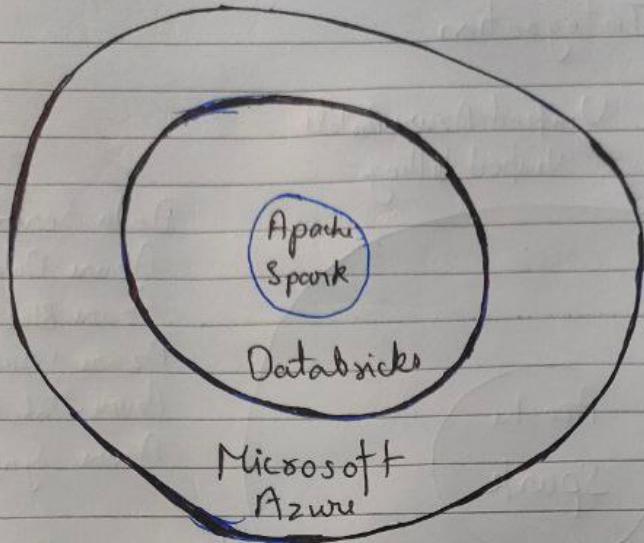
Build

SaaS

Software-as-a-service

consume

Azure databricks



Apache Spark

It is a lightning-fast unified analytics engine for big data processing & machine learning

100% open source under Apache license

Simple & easy to use APIs

In Memory processing engine

Distributed computing platform

Unified engine which supports SQL, streaming, ML & graph processing.

Clusters

MLFlow

Workspace / Notebook

SQL Analytics

Apache
Spark

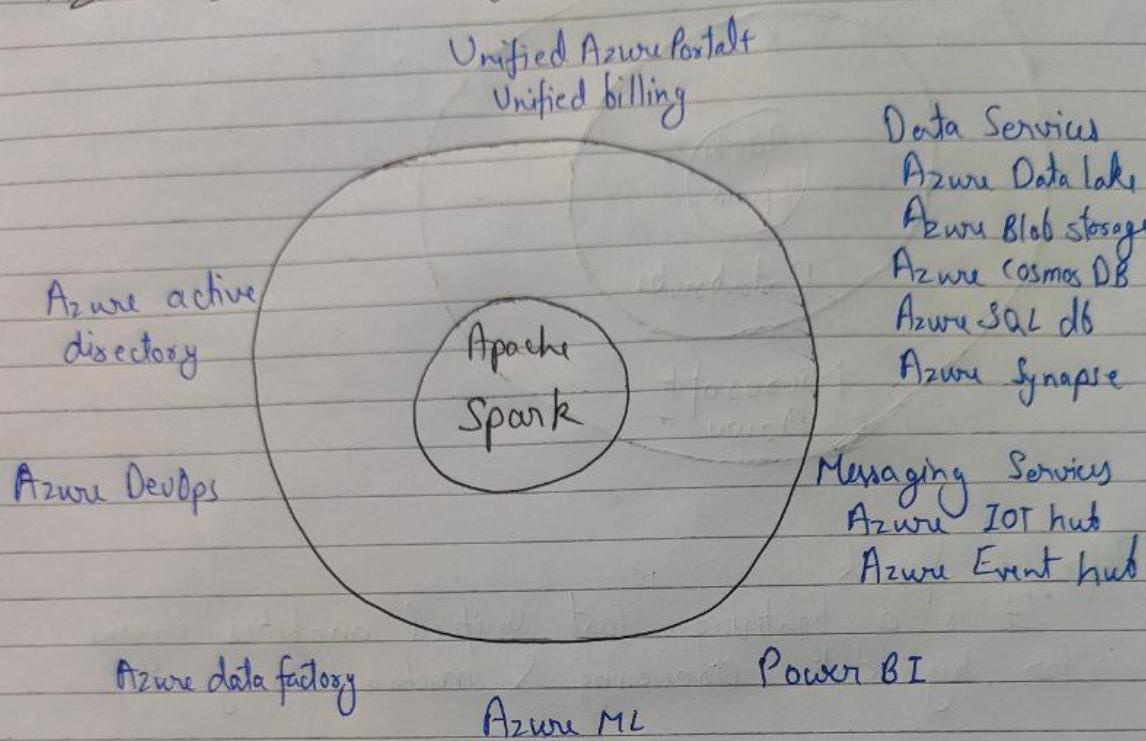
Administration Controls

Delta lake

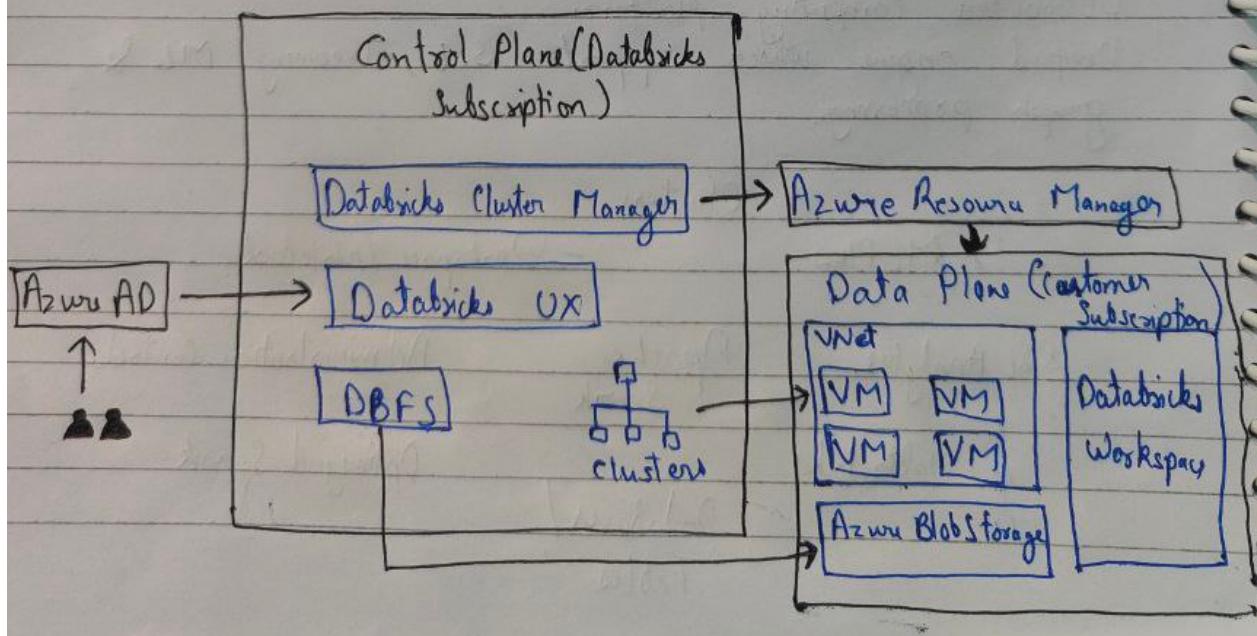
Database /
Tables

Optimized Spark

Azure Databricks Integration



Azure databricks Architecture



Lab setup-

The screenshot shows the Microsoft Azure portal home page. At the top, the browser menu bar includes Chrome, File, Edit, View, History, Bookmarks, Profiles, Tab, Window, Help, and a network status showing 157kb/s. The address bar displays "Home - Microsoft Azure" and "portal.azure.com/#home". The Azure logo is in the top left, followed by a search bar with placeholder text "Search resources, services, and docs (G+ /)". On the right side of the header, there are icons for notifications, settings, and a user profile labeled "azuser1071_mm.local@... IIHT (IITHLONMICROSOFT.COM)". Below the header, the main content area is divided into sections:

- Azure services**: A row of service icons: Create a resource (plus sign), Quickstart Center (rocket), Virtual machines (monitor), App Services (globe), Storage accounts (cabinet), SQL databases (SQL logo), Azure Cosmos DB (globe with star), Kubernetes services (purple hexagon), Function App (lightning bolt), and More services (arrow).
- Resources**: A table with columns: Name, Type, and Last Viewed. It shows a single entry: "No resources have been viewed recently". A "View all resources" button is present.
- Navigate**: A row of navigation links: Subscriptions (key icon), Resource groups (cube icon), All resources (grid icon), and Dashboard (dash icon).

At the bottom of the screen, the Mac OS Dock is visible, showing various application icons including Finder, Mail, Calendar, and Microsoft Edge.