

9_ADB_Components

Wednesday, February 11, 2026 2:34 PM

The screenshot shows the Databricks workspace interface. On the left is a sidebar with a red header bar containing a '+ New' button. Below it are several sections: 'Workspace' (with 'Recents', 'Catalog', 'Jobs & Pipelines', 'Compute', 'Marketplace'), 'SQL' (with 'SQL Editor', 'Queries', 'Dashboards', 'Genie', 'Alerts', 'Query History', 'SQL Warehouses'), 'Data Engineering' (with 'Runs', 'Data Ingestion'), and 'AI/ML' (with 'Playground', 'Agents', 'Experiments', 'Features', 'Models'). The main area is titled 'Welcome to Databricks' and features a search bar at the top right. A central box contains a 'Set up your workspace' guide with a 'Get started' button. Below the search bar are buttons for 'Suggested', 'Favorites', 'Popular', 'Mosaic AI', and 'What's new'. To the right of these buttons is a small icon of three horizontal bars. At the bottom right of the main area, there is a message 'No suggestions yet'.

Databricks Main Workspace Components — Clean Explanation

These are the four core areas you use every day in Databricks:

1. Workspace

This is your main working area.

You use it to:

- Create and organize **notebooks**
- Store folders, files, and shared resources
- Collaborate with teammates

Think of it like a project folder where all your code and documents live.

- [!\[\]\(0d8db9433f46ad8f6b872612f143354f_img.jpg\) New](#)
- [!\[\]\(52f6c00d31cbb33a42da3f96d8d42f05_img.jpg\) Add or upload data](#)
- [!\[\]\(f400f087ba57ee2474ed57cf49b5ca19_img.jpg\) Workspace](#)
- [!\[\]\(2fec083a2451e2c253b25d22c984fd4d_img.jpg\) Recents](#)
- [!\[\]\(4854494c45797fadf3e52dee19ed8ef2_img.jpg\) Catalog](#)
- [!\[\]\(bffe95c96afded4dc7544e71a668fb66_img.jpg\) Jobs & Pipelines](#)
- [!\[\]\(d804a91daaf34ac48e290b168357cce4_img.jpg\) Compute](#)
- [!\[\]\(c32ebbba6dd720b49f12d5e88f9962d6_img.jpg\) Marketplace](#)
- [!\[\]\(91853ee448110f41cca7a0ad0e3ce3d8_img.jpg\) SQL](#)
- [!\[\]\(170a308e7a85756dc086e3af6b06af11_img.jpg\) SQL Editor](#)
- [!\[\]\(544ff88a55bf51fc938f21e25306da14_img.jpg\) Queries](#)
- [!\[\]\(c853de989e76388659e9402f9ec024d7_img.jpg\) Dashboards](#)
- [!\[\]\(a30b7bb87bf1db82044f6a3005e50ca8_img.jpg\) Genie](#)
- [!\[\]\(0b2cdae1e34d2a24be91bb6084ce5ce4_img.jpg\) Alerts](#)
- [!\[\]\(05203d94957aeb1694fdc8ac8119a60e_img.jpg\) Query History](#)
- [!\[\]\(af4a0c5cd57cde459b5c3f885b01dbd0_img.jpg\) SQL Warehouses](#)
- [!\[\]\(c29f35fd3d14d2900144eb70103435ec_img.jpg\) Data Engineering](#)
- [!\[\]\(493204a3da9d4b46cf56cf743f65b296_img.jpg\) Runs](#)
- [!\[\]\(9c8f8889c83e88ba5f19684be14cdf01_img.jpg\) Data Ingestion](#)
- [!\[\]\(57e107e64419a7b0e85e8e1aa32caffa_img.jpg\) AI/ML](#)
- [!\[\]\(f1f6bc5af45808f42a1aa4961a06651c_img.jpg\) Playground](#)
- [!\[\]\(f396e2fe5e6a6ae557a05c5aa0d44b97_img.jpg\) Agents](#)
- [!\[\]\(aa67e4f2fe16e05e193df2aed59b077f_img.jpg\) Experiments](#)
- [!\[\]\(1b20811cd948039710dc1b7509bb8560_img.jpg\) Features](#)
- [!\[\]\(786bc55583e505de627127bc7769fd24_img.jpg\) Models](#)

- [!\[\]\(c5725c5b35981a35f1520e949f764d17_img.jpg\) Notebook](#)
- [!\[\]\(1b528d31677da3f213f0576712b16881_img.jpg\) Query](#)
- [!\[\]\(0f28048ee5f439559f16ca4d39043c34_img.jpg\) Dashboard](#)
- [!\[\]\(f569861f70431a96430de441727f6f36_img.jpg\) Genie space](#)

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The screenshot shows the Microsoft Azure Databricks workspace. The left sidebar contains navigation links for Workspace, Recents, Catalog, Jobs & Pipelines, Compute, Marketplace, SQL (SQL Editor, Queries, Dashboards, Genie, Alerts, Query History, SQL Warehouses), Data Engineering (Runs, Data ingestion), AI/ML (Playground, Agents, Experiments, Features, Models), and Drafts folder. The main area shows the 'Users' section for the user 'venkatababburi1999@gmail.com'. It includes a search bar, filters for Type, Owner, and Last modified, and a table listing one item: '.assistant' (Type: Folder, Owner: Venkata Siva Sai Vardh..., Created at: Feb 11, 2026, 02:50 PM). There are also 'Send feedback', 'Share', and 'Create' buttons.

Drafts folder:

- Temporary workspace for quick experiments and ad-hoc work
- When you create a new notebook without specifying a location, it often goes here
- Think of it as your "scratch pad" for testing ideas before organizing them properly

Assistant folder:

- Created by the Databricks Assistant (that's me!)
- Stores notebooks, queries, or other assets that I generate when helping you
- Keeps AI-generated content separate from your manual work

Your workspace structure:

- You can create your own folders to organize projects
- Right-click in the Workspace to create new folders, notebooks, or import files
- Common practice: organize by project, team, or data domain (e.g., "Sales Analytics", "Data Engineering")

2. Catalog (Unity Catalog)

This is your **data governance and data browsing layer**.

You use it to:

- Browse **catalogs** → **schemas** → **tables**
- View Delta tables, volumes, and data assets
- Manage permissions and access control

Hierarchy: **Catalog** > **Schema** > **Table**

(similar to **Database** > **Schema** > **Table** in SQL Server)

The screenshot shows the Databricks interface with the left sidebar expanded. The sidebar includes sections for New, Workspace, Recents, Catalog (which is selected), Jobs & Pipelines, Compute, Marketplace, SQL, Data Engineering, Runs, Data Ingestion, AI/ML, Playground, Agents, Experiments, Features, and Models. The main area displays the Catalog page, which lists various tables under the 'Catalog' tab. The tables listed are:

Name	Reason for suggestion	Type
sales_suppliers	Quick start with samples data	Table
sales_franchises	Quick start with samples data	Table
media_gold_reviews_chunked	Quick start with samples data	Table
sales_customers	Quick start with samples data	Table
sales_transactions	Quick start with samples data	Table
media_customer_reviews	Quick start with samples data	Table

Jobs and Pipelines are two different ways to automate and schedule data work in Databricks:

Jobs:

- Automated tasks that run notebooks, Python scripts, or SQL queries on a schedule or trigger
- Use cases: daily reports, scheduled data processing, automated model training
- Example: Run a notebook every morning at 8 AM to refresh a dashboard
- Flexible - can run any code (Python, SQL, Scala, R)

Pipelines (Delta Live Tables):

- Specialized workflows for building reliable data pipelines with built-in quality checks
- Declarative approach - you define "what" data transformations you want, Databricks handles "how"
- Automatically manages dependencies between tables and handles incremental updates
- Use cases: ETL workflows, data quality enforcement, streaming data processing
- Built specifically for creating and maintaining data tables with monitoring and lineage tracking

Key difference:

- Jobs** = General automation (run any code on schedule)
- Pipelines** = Purpose-built for data engineering workflows with quality guarantees

The screenshot shows the Databricks interface with the 'Jobs & Pipelines' section selected. The left sidebar includes options like Workspace, Recents, Catalog, Jobs & Pipelines (which is highlighted), Compute, Marketplace, SQL Editor, Queries, Dashboards, Genie, Alerts, Query History, and SQL Warehouses. The main area displays a search bar and three categories: 'Ingestion pipeline' (Ingest data from apps, databases and files), 'ETL pipeline' (Build ETL pipelines using SQL and Python), and 'Job' (Orchestrate notebooks, pipelines, queries and more). Below these are tabs for 'Jobs & pipelines' and 'Runs'. A filter bar allows searching by name or ID, type (All, Jobs, Pipelines), owner, accessibility, tags, run status, trigger, and recent runs. A 'Create' button is also present.

3. Compute

This is where you manage the engines that run your code.

You use it to:

- Create and manage **clusters**
- Use **serverless compute** (no setup needed)
- Monitor cluster performance and logs

Compute = the machines that execute your notebooks, SQL queries, and jobs.

The screenshot shows the Databricks Compute interface. The left sidebar includes options like Workspace, Recents, Catalog, Jobs & Pipelines (highlighted), Compute, Marketplace, SQL Editor, Queries, Dashboards, Genie, Alerts, Query History, and SQL Warehouses. The main area has tabs for 'All-purpose compute', 'Job compute', 'SQL warehouses', 'Vector Search', 'Pools', 'Policies', 'Apps', and 'Lakebase'. A warning message states: 'This account may not have enough CPU cores to start a cluster. Contact your administrator to increase the limits.' with a link to 'Learn more about CPU quota'. Below is a search bar and filter options for 'Created by' and 'Only pinned'. A large '+' icon is in the center. A table header includes columns for State, Name, Policy, Runtime, Active mem..., Active cores, Active DBU ..., Source, Creator, and Notebooks. A 'Create with Personal Compute' and 'Create compute' button are at the bottom.