

dbt Cloud Administrator Certification Exam

Study Guide



How to use this study guide

This is the official study guide for the **dbt Cloud Administrator Certification Exam** from the team at dbt Labs. While the guide suggests a sequence of courses and reading material, we recommend using it to supplement (rather than substitute) real-world use and experience with dbt.

The **exam overview** will provide high-level details on the format of the exam. We recommend being mindful of the number of questions and time constraints.

The **topic outline** will provide a clear list of the topics that are assessed on the exam. dbt subject matter experts used this topic outline to write and review all of the exam items that you will find on the exam.

The **sample exam questions** provide examples of the format to expect for the exam. The types of questions you can expect on the exam include:

Multiple-choice

Hotspot

Fill-in-the-blank

Build list

Matching

Discrete Option Multiple Choice (DOMC)

The **learning path** will walk you through a suggested series of courses, readings, and documentation. We will also provide some guidance for the types of experience to build while using dbt on a real-world project.

Finally, the **additional resources** section will provide additional places to continue your learning.

We put a ton of effort and attention to detail and the exam and we wish you much success in your pursuit of a dbt Labs certification.

*- The dbt Labs Training
& Certification Team*

Exam Overview

The [dbt Cloud Administrator Certification Exam](#) is designed to evaluate your ability to

- Initialize the setup of a dbt Cloud account including connecting to data platforms, git providers and configuring security and access controls
- configure environments, jobs, logging, and alerting with best practices
- Maximize the value your team gets out of dbt Cloud
- configure, troubleshoot and optimize projects, manage dbt Cloud connections and environments
- maximize value while enforcing best practices

We recommend that folks have at least familiarity with SQL, data platforms, and git for version control and have had 6+ months of experience administering an instance of dbt Cloud before attempting the exam.

Logistics

- **Duration:** 2 Hours
- **Format & Registration:** [online proctored](#) or [on-site at Coalesce](#)
- **Length:** 65 questions
- **Passing Score:** 63% or higher. You will know your result immediately after completion of the exam.
- **Price:** \$200*
- **Language:** Only English at this time
- **Certification Expiration:** The certification expires 2 years after the date awarded.

**Discounts are available for dbt Labs SI Partners.*

Scoring

The exam is scored on a point basis, with 1 point for each correct answer, and 0 points for incorrect answers. All questions are weighted equally.

An undisclosed number of unscored questions will be included on each exam. These are unmarked and indistinguishable from scored questions. Answers to these questions will be used for research purposes only, and will not count towards the score.

Retakes & Cancellations

If you do not pass the exam, you may schedule a retake 48 hours after your last attempt. You will need to pay a registration fee for each retake. You can reschedule or cancel without penalty on MonitorEDU before a scheduled exam. We will not issue refunds for no-shows.

Accommodations

Please contact [MonitorEDU](#) with any accommodation requests.

Topic Outline

The dbt Cloud Administrator Certification Exam has been designed to assess the following topics and sub-topics.

Topic 1: Configuring dbt Cloud data warehouse connections

- Understanding how to connect the warehouse
- Configuring IP whitelist
- Selecting adapter type
- Configuring OAuth
- Adding credentials to deployment environments to access warehouse for production / CI runs

Topic 2: Configuring git connections

- Connecting the git repo to dbt
- Understanding custom branches and which to configure to environments
- Creating a PR template
- Understanding version control basics
- Setting up integrations with git providers

Topic 3: Configuring dbt Cloud security and licenses

- Creating Service tokens for API access
- Assigning permission sets
- Creating license mappings
- Understanding 3-pronged access control (RBAC in dbt, warehouse, git)
- Adding and removing users
- Adding SSO application for dbt Cloud enterprise

Topic Outline (Continued)

Topic 4:

Creating and maintaining dbt Cloud environments

- Understanding access control to different environments
- Determining when to use a service account
- Rotating key pair authentication via the API
- Understanding environment variables
- Upgrading dbt versions
- Deploying using a custom branch
- Creating new dbt Cloud deployment environment
- Setting default schema / dataset for environment

Topic 5:

Creating and maintaining job definitions

- Setup a CI job with deferral
- Understanding steps within a dbt job
- Scheduling a job to run on schedule
- Implementing run commands in the correct order
- Creating new dbt Cloud job
- Configuring optional settings such as environment variable overrides, threads, deferral, target name, dbt version override etc.
- Generating documentation on a job that populates the project's doc site

Topic 6:

Setting up monitoring and alerting for jobs

- Setting up email notifications
- Setting up Slack notifications
- Using Webhooks for event-driven integrations with other systems

Topic 7:

Monitoring Command Invocations

- Understanding events in audit log
- Understanding how to audit a DAG and use artifacts
- Using the model timing tab
- Reviewing job logs to find errors

Sample Exam Questions

Sample Question 1:

You upgraded your dbt Cloud version for your project.

Which is true?

- You must add a `require-dbt-version` to your `dbt_project.yml`.
- It's pertinent to fix code inefficiencies while resolving errors as the result of the upgrade.
- You need to look for dbt version requirements on packages the project has installed.
- All other projects associated with the account need to be upgraded in parallel.

Explanation:

Each package has a 'dbt version required' interval. When you upgrade your dbt Cloud version in your project, you need to check the required version for your installed packages to ensure the updated dbt version falls within the interval. This makes You need to look for dbt version requirements on packages the project has installed the correct answer.

Sample Exam Questions (Continued)

Sample Question 2:

You have several jobs that need to be triggered in different ways.

Match these scenarios with the correct job trigger.

A daily production data refresh that runs every other hour, Monday through Friday.

Select a match:

A job to test code changes before they are merged with the main branch.

Select a match:

A near real-time update that needs to run immediately after an Airflow task loads the data

Select a match:

Ad hoc requests to fully refresh incremental models one to two times per month

Select a match:

Custom cron schedule
 Continuous integration run on pull requests
 No trigger - run job manually
 dbt Cloud Administrative API

Explanation:

Custom cron schedule matches with A daily production data refresh that runs every other hour, Monday through Friday. Recurring jobs that run on a schedule are defined in the job setting triggers either by a custom cron schedule or day/time selection in the UI.

Continuous integration run on pull requests matches with A job to test code changes before they are merged with the main branch. Continuous integration jobs are set up to trigger when a pull request is created. The PR workflow occurs when code changes are made and a PR is created in the UI. This kicks off a job that run your project to ensure a successful run prior to merging to the main branch.

No trigger matches with Ad hoc requests to fully refresh incremental models one to two times per month- run job manually. Ad hoc requests, by definition, are one-off run that are not scheduled jobs and therefore are kicked off manually in the UI.

dbt Cloud Administrator API matches with A near real-time update that needs to run immediately after an Airflow task loads the data. An action outside of dbt Cloud triggering a job has to be configured using the dbt Cloud Administratoristrative API.

Sample Exam Questions (Continued)

Sample Question 3:

You have created a service token for API access.

Which is true?

- Service account tokens are used for system-level integrations that do not run on behalf of any one user.
- When you assign a permission set to a token, you must assign it to specific projects.
- You can only assign service tokens one permission set.
- After generating the token, you can view it again from Account Settings → Service Tokens.

Explanation:

dbt has two types of tokens, service account and user. User tokens are issued to users with a developer license. This token runs on behalf of the user. Service account tokens run independently from a specific user. This makes Service account tokens are used for system-level integrations that do not run on behalf of any one user the correct answer.

Sample Exam Questions (Continued)

Sample Question 4:

A service token is being used to access the dbt Cloud API, and only has access to:

1. view read-only dashboards
2. view generated documentation
3. view source freshness reports

Which permission gives only the necessary level of access?

- Metadata Only
- Read-Only
- Analyst
- Job Viewer

Explanation:

Metadata only service tokens can authorize requests to the metadata API.

Read-only service tokens can authorize requests for viewing a read-only dashboard, viewing generated documentation, and viewing source freshness reports.

Analysts can use the IDE, configure personal developer credentials, view connections, view environments, view job definitions, and view historical runs.

Job Viewers can view environments, view job definitions, and view historical runs.

Sample Exam Questions (Continued)

Sample Question 5:

Which two are true about setting up dbt Cloud with SSO login?

- A non-admin user can still choose to use username and password authentication after SSO has been configured.
- A matching user needs to be created in dbt Cloud if they don't already exist when SSO authentication is configured.
- You can configure SSO to use Just-in-time provisioning.
- SSO Logins are valid for 48 hours after a user authenticates, and will prompt them for reauthorization after that period.
- You can configure SSO to use IdP-initiated login.

Explanation:

dbt Cloud supports JIT (Just-in-Time) provisioning and IdP-initiated login.

Learning Path

This is not the only way to prepare for the exam, but just one recommended path for someone new to dbt to prepare for the exam. Each checkpoint provides a logical set of courses to complete, readings and documentation to digest, and real-world experience to seek out. We recommend this order, but things can be reorganized based on your learning preferences.



Checkpoint 0: Prerequisites

dbt is a tool that brings together several different technical skills in one place. We recommend starting this path after you've developed foundational git and SQL skills.

For SQL, the exam expects familiarity with **joins, aggregations, common table expressions (CTEs), and window functions.**

For git, the exam expects familiarity with **branching strategies (including development vs main branches), basic git commands, and pull/merge requests.**



Checkpoint 1: Build a Foundation

- **Courses:**
 - [dbt Fundamentals](#)
- **Readings:**
 - [dbt viewpoint](#)
 - Blog: [Data transformation process: 6 steps in an ELT workflow](#)
 - Blog: [4 Data Modeling Techniques for Modern Warehouses](#)
 - Blog: [Creating a data quality framework for scale](#)
 - Blog: [The next big step forwards for analytics engineering](#)
- **Documentation:**
 - [dbt Cloud features](#)
 - [Version control basics](#)
- **Experience**
 - Creating a dbt project from scratch to deployment
 - Debugging errors
- **Commands**
 - dbt compile
 - dbt run
 - dbt source freshness
 - dbt test
 - dbt docs generate
 - dbt build

Learning Path (Continued)



Checkpoint 2: Configuring data warehouse and git connections

Resources:

• Courses:

- [dbt Cloud and BigQuery for Administrators](#)
- [dbt Cloud and Databricks for Administrators](#)
- [dbt Cloud and Snowflake for Administrators](#)
- [GitHub Skills](#)
- [LinkedIn Learning: Getting started with git and github](#)
- [GitLab Learn](#)
- [Azure DevOps Tutorial](#)

• Readings:

- [What is a data platform - Snowflake](#)
- [What is a data warehouse - AWS](#)
- [Accelerators for Cloud Data Platform Transition Guide](#)
- [How we configure Snowflake](#)
- [Success Story: Aktify Democratizes Data Access with Databricks Lakehouse Platform and dbt](#)
- [Unblocking IPs in 2023: Everything you need to know](#)
- [What is OAuth?](#)
- [Version control with Git](#)
- [Git for the rest of us workshop](#)
- [The exact GitHub pull request template we use at dbt Labs](#)
- [How to review an analytics pull request](#)

• Documentation:

- [Supported data platforms](#)
- [What are adapters? Why do we need them?](#)
- [Adapter specific configurations](#)
- [New adapter information sheet](#)
- [Quickstart for dbt Cloud and BigQuery](#)
- [Quickstarts for dbt Cloud and Databricks](#)
- [Quickstart for dbt Cloud and Snowflake](#)
- [Snowflake Permissions](#)
- [Quickstart for dbt Cloud and Redshift](#)
- [Starburst Galaxy Quickstart](#)
- [dbt Cloud Regions & IP addresses](#)
- [OAuth with data platforms](#)
- [About user access in dbt Cloud](#)

Learning Path (Continued)

- [dbt Cloud tenancy](#)
 - [dbt Cloud regions & IP addresses](#)
 - [Create a deployment environment / deployment connection](#)
 - [Configure GitHub for dbt Cloud](#)
 - [Configure GitLab for dbt Cloud](#)
 - [Connect to Azure DevOps](#)
 - [How do I use custom branch settings in a dbt Cloud environment?](#)
- **Experience:**
 - Configuring a data platform for dbt Cloud
 - Adding users to a data platform, managing permissions, data objects, service accounts
 - Connecting a data platform to dbt Cloud, initializing a project and building a model
 - Unblocking IPs for dbt Cloud
 - Creating a security integration in a data platform to manage an OAuth connection
 - Configuring SSO for a dbt Cloud Enterprise plan
 - Adding credentials to deployment environments to access warehouse for CI runs
 - Installing dbt Cloud in a GitHub repo and connecting to dbt
 - Installing dbt Cloud in a GitLab repo and connecting to dbt
 - Installing dbt Cloud in Azure DevOps and connecting to dbt
 - Creating a pull request template for your organization
 - Creating pull requests
 - Reviewing pull requests
 - Reviewing, managing, merging changes
 - Onboarding new users to dbt Cloud project repos in GitHub, GitLab, AzureDevOps
 - Using custom branches in dbt environments



Checkpoint 3: Configuring dbt Cloud security and licenses

Resources:

- **Readings:**
 - [dbt Cloud Security protocols and recommendations](#)
 - [What is SSO and how does it work?](#)
- **Documentation:**
 - [Single Sign On in dbt Cloud for the Enterprise](#)
- **Experience:**
 - Limiting dbt Cloud's access to your warehouse to strictly the datasets processed by dbt
 - Using SSL or SSH encryption to protect your data and credentials
 - Choosing strong passwords for your database users

Learning Path (Continued)



Checkpoint 4: Configuring and maintaining dbt Cloud environments

Resources:

- **Courses:**
 - [Advanced Deployment](#)
- **Readings:**
 - [dbt Cloud environments](#)
 - [dbt Cloud environment best practices guide](#)
- **Documentation:**
 - [Types of environments](#)
 - [Create a development environment](#)
 - [Create a deployment environment](#)
 - [How to use custom branch settings](#)
 - [Delete a job or environment in dbt Cloud](#)
 - [Set environment variables in dbt Cloud](#)
 - [Use environment variables in Jinja](#)
 - [About service account tokens](#)
- **Experience:**
 - Defining environments in your data platform
 - Defining environments in dbt Cloud
 - Using custom branches in a dbt Cloud environment
 - Using environment variables



Checkpoint 5: Creating and maintaining job definitions

Resources:

- **Documentation:**
 - [Create and schedule jobs](#)
 - [Deploy dbt cloud jobs](#)
 - [Job scheduler features](#)
 - [Create artifacts](#)
 - [Job commands](#)
 - [Job creation best practices Discourse](#)
 - [Job triggers](#)
 - [Configuring continuous integration in dbt Cloud](#)
 - [Configuring a Slim CI job](#)
 - [Cloud CI deferral and state comparison](#)

Learning Path (Continued)

- **Experience:**

- Creating a new job
- Setup a CI job with deferral
- Understanding steps within a dbt job
- Scheduling a job to run on schedule
- Implementing run commands in the correct order
- Configuring optional settings such as environment variable overrides, threads, deferral, target name, dbt version override, etc.
- Generating documentation on a job that populates the project's doc site



Checkpoint 6: Setting up monitoring and alerting

Resources:

- **Documentation:**

- [dbt cloud job notifications](#)
- [Set up email and Slack notifications for jobs](#)
- [Webhooks for your jobs](#)

- **Experience:**

- Setting up dbt Cloud job notifications
- Setting up email notifications for jobs
- Setting up Slack notifications for jobs
- Setting up webhooks



Checkpoint 7: Monitoring command invocations

Resources:

- **Documentation:**

- [Events in the dbt Cloud audit log](#)
- [Exporting logs](#)
- [Searching the audit log](#)
- [Model timing](#)
- [dbt Guide: Best practices for debugging errors](#)
- [Unpacking relationships and data lineage](#)

- **Experience:**

- Finding and reviewing events in audit log
- Reviewing job logs to find errors
- Auditing a DAG and using artifacts
- Using the model timing tab

Additional Resources

dbt Slack

- #dbt-certification
- #learn-on-demand
- #advice-dbt-for-beginners
- #advice-dbt-for-power-users
- #dbt-deployment-and-orchestration

If you are a dbt Labs partner or enterprise client, contact your partner manager or account team for additional benefits.

Prefer E-mail? Contact us:
certification@dbtlabs.com