

VLOOKUP for data aggregation

Use JOINS to aggregate data in SQL

Reading: Optional: Upload the employee dataset to BigQuery

10 min

Video: Understanding JOINS

7 min

Reading: Secret identities: The importance of aliases

10 min

Reading: Using JOINs effectively

10 min

Practice Quiz: Hands-On Activity: Queries for JOINS

2 questions

Reading: Optional: Upload the warehouse dataset to BigQuery

10 min

Video: COUNT and COUNT DISTINCT

5 min

Practice Quiz: Test your knowledge on using JOINs to aggregate data

3 questions

Work with subqueries

Weekly challenge 3

## Optional: Upload the employee dataset to BigQuery

The next video demonstrates how to use JOINS to merge and return data from two tables based on a common attribute used in both tables.

If you would like to follow along with the instructor, you will need to log in to your BigQuery account and upload the employee data provided as two CSV files. If you have hopped around courses, [Using BigQuery](#) in the **Prepare Data for Exploration** course covers how to set up a BigQuery account.

### Prepare for the next video

- First, download the CSV files from the attachments below:

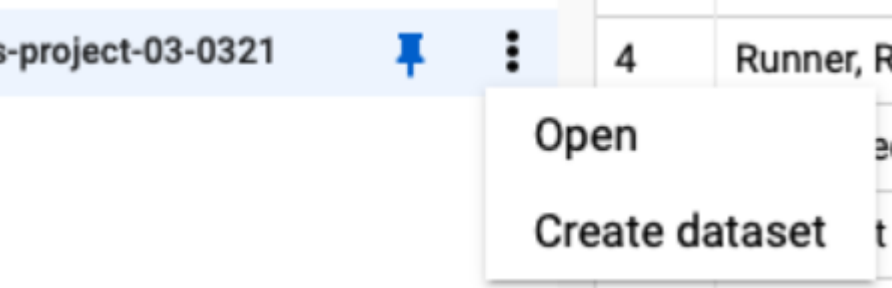
 **Employees Table - Understanding JOINS**  
CSV File

 **Departments Table - Understanding JOINS**  
CSV File

- Next, complete the following steps in your BigQuery console to upload the **employees** and **departments** tables.

**Step 1:** Open your BigQuery console and click on the project you want to upload the data to.

**Step 2:** In the Explorer on the left, click the Actions icon (three vertical dots) next to your project name and select **Create dataset**.



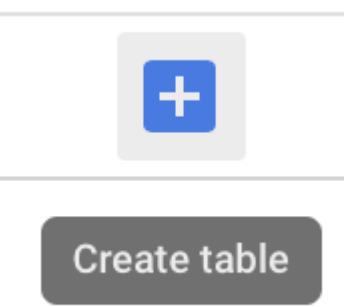
**Step 3:** Enter **employee\_data** for the Dataset ID.

**Step 4:** Click **CREATE DATASET** (blue button) to add the dataset to your project.

**Step 5:** In the Explorer on the left, click to expand your project, and then click the **employee\_data** dataset you just created.

**Step 6:** Click the Actions icon (three vertical dots) next to **employee\_data** and select **Open**.

**Step 7:** Click the blue + icon at the top right to open the Create table window.



**Step 8:** Under Source, for the Create table from selection, choose where the data will be coming from.

- Select **Upload**.
- Click **Browse** to select the Employees Table CSV file you downloaded.
- Choose **CSV** from the file format drop-down.

**Step 9:** For Table name, enter **employees** if you plan to follow along with the video.

**Step 10:** For Schema, click the Auto detect check box.

**Step 11:** Click **Create table** (blue button). You will now see the **employees** table under your **employee\_data** dataset in your project.

**Step 12:** Click the **employee\_data** dataset again.

**Step 13:** Click the icon to open the Create table window again.

**Step 14:** Under Source, for the Create table from selection, choose where the data will be coming from.

- Select **Upload**.
- Click **Browse** to select the Departments Table CSV file you downloaded.
- Choose **CSV** from the file format drop-down.

**Step 15:** For Table name, enter **departments** if you plan to follow along with the video.

**Step 16:** For Schema, click the Auto detect check box.

**Step 17:** Click **Create table** (blue button). You will now see the **departments** table under your **employee\_data** dataset in your project.

**Step 18:** Click the **employees** table and click the **Preview** tab to verify that you have the data shown below.

employees

DELETE

EXPORT

SCHEMA

DETAILS

PREVIEW

Row	name	department_id	role
1	Dave Smith	1	Product Marketing Manager
2	Scott Tanner	1	Director of Demand Gen
3	Margaret Lane	1	VP of Marketing
4	Julie Jones	2	Software Engineer
5	Ted Connors	2	Software Engineer
6	Mary Martin	5	Receptionist

**Step 19:** Click the **departments** table and click the **Preview** tab to verify that you have the data shown below.

departments

SCHEMA

DETAILS

PREVIEW

Row	name	department_id
1	Marketing	1
2	Engineering	2
3	Accounting	3
4	Sales	4

If your data previews match, you are ready to follow along with the next video.

Mark as completed

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