

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 warehouse dataset to BigQuery

The next video demonstrates how to use COUNT and COUNT DISTINCT in SQL to count and return the number of certain values in a dataset.

If you would like to follow along with the instructor, you will need to log in to your BigQuery account and upload the warehouse 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 two CSV files from the attachments below:

📎

Warehouse Orders - Warehouse

CSV File

📎

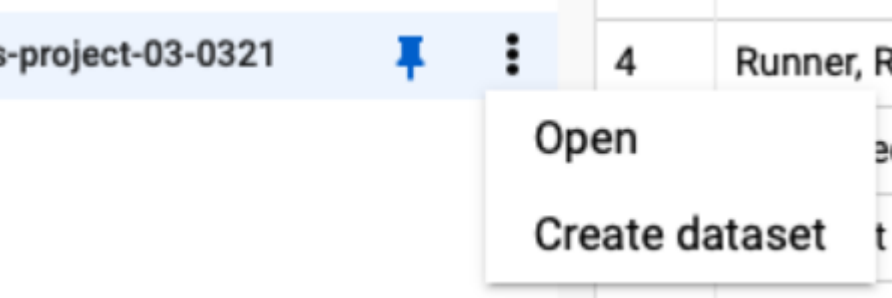
Warehouse Orders - Orders

CSV File

- Next, complete the following steps in your BigQuery console to upload the Warehouse Orders dataset with the two Warehouse and Orders 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: In the upcoming video, the name "warehouse_orders" will be used for the dataset. If you plan to follow along with the video, enter **warehouse_orders** for the Dataset ID.

Create dataset

Dataset ID *

warehouse_orders

Letters, numbers, and underscores allowed

Data location

Default

Default table expiration

☐ Enable table expiration

Default maximum table age

Days

Encryption

☒ Google-managed encryption key

No configuration required

☐ Customer-managed encryption key (CMEK)

Manage via Google Cloud Key Management Service

CREATE DATASET

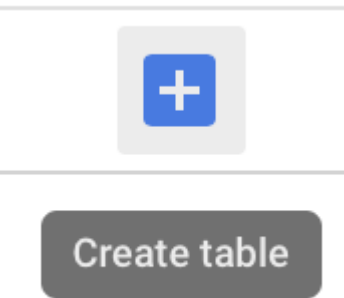
CANCEL

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 **warehouse_orders** dataset you just created.

Step 6: Click the Actions icon (three vertical dots) next to warehouse_orders 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 Warehouse Orders - Warehouse CSV file you downloaded.
- Choose **CSV** from the file format drop-down.

Step 9: For Table name, enter **Warehouse** 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 **Warehouse** table under your **warehouse_orders** dataset in your project.

Step 12: Click the **warehouse_orders** 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 Warehouse Orders - Orders CSV file you downloaded.
- Choose **CSV** from the file format drop-down.

Step 15: For Table name, enter **Orders** 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 **Orders** table under your **warehouse_orders** dataset in your project.

Step 18: Click the **Warehouse** table and click the **Preview** tab to verify that you have 10 rows of data.

SCHEMA					
DETAILS					
PREVIEW					
Row	warehouse_id	warehouse_alias	maximum_capacity	employee_total	state
1	1543	Somerset Fulfillment Center	210	14	KY
2	2270	Bowling Green Warehouse	280	13	KY
3	9080	Frankfort Fulfillment Center	235	5	KY
4	2666	Lansing Fulfillment Center	290	16	MI
5	3961	Lansing Storage Warehouse	740	22	MI
6	8118	Ann Arbor Fulfillment Center	780	17	MI
7	3417	Gatlinburg Warehouse	620	6	TN
8	4338	Knoxville Fulfillment Center	215	13	TN
9	6509	Memphis Fulfillment Center	755	22	TN
10	9831	Clarsvill Warehouse	400	16	TN

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

SCHEMA					
DETAILS					
PREVIEW					
Row	order_id	customer_id	warehouse_id	order_date	shipper_date
1	789	3731	8118	2019-01-01	2019-01-04
2	790	3486	8118	2019-01-01	2019-01-04
3	791	2623	8118	2019-01-01	2019-01-04
4	792	9869	8118	2019-01-01	2019-01-04
5	793	4866	8118	2019-01-01	2019-01-04
6	794	8055	8118	2019-01-01	2019-01-04
7	795	1152	8118	2019-01-01	2019-01-04
8	796	5765	8118	2019-01-01	2019-01-04
9	797	4709	8118	2019-01-01	2019-01-04
10	798	4866	2666	2019-01-01	2019-01-04
11	799	4515	2666	2019-01-01	2019-01-04
12	800	9618	2666	2019-01-01	2019-01-04
13	801	2337	2666	2019-01-01	2019-01-04
14	802	1166	2666	2019-01-01	2019-01-04
15	803	4376	2666	2019-01-01	2019-01-04
16	804	9832	2666	2019-01-01	2019-01-04
17	805	6046	9080	2019-01-01	2019-01-04

Rows per page: 100 1 - 100 of 9999

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

Mark as completed