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Example Title Slide

Learn SQL from Scratch

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Quiz Funnel, Part 1

To help users find their perfect frame, Warby Parker has a Style Quiz that has the following questions:
“What are you looking for?”
“What’s your fit?”
“Which shapes do you like?”
“Which colors do you like?”
“When was your last eye exam?”
The users’ responses are stored in a table called survey.
Select all columns from the first 10 rows. What columns does the table have?

```
SELECT *
 FROM survey
 LIMIT 10;
```

column1	column2	column3
question	user_id	response

Quiz Funnel, Part 2

Users will “give up” at different points in the survey. Let’s analyze how many users move from Question 1 to Question 2, etc.
Create a quiz funnel using the GROUP BY command.
What is the number of responses for each question?

question	users
1. What are you looking for?	500
2. What's your fit?	475
3. Which shapes do you like?	380
4. Which colors do you like?	361
5. When was your last eye exam?	270

```
SELECT question,
            COUNT(DISTINCT user_id) AS 'users'
FROM survey
GROUP BY 1;
```

Quiz Funnel, Part 3

Using a spreadsheet program like Excel or Google Sheets, calculate the percentage of users who answer each question.

Question	Users	Completion Rate
1. What are you looking for?	500	100%
2. What's your fit?	475	95%
3. Which shapes do you like?	380	80%
4. Which colors do you like?	361	95%
5. When was your last eye exam?	270	75%

Question 2 and 4 have the highest completion rate because they are the easiest to answer. There are less possible answers than questions 3 and 5, which are more abstract.

Home Try-On Funnel, Part 1

Let's find out whether or not users who get more pairs to try on at home will be more likely to make a purchase.
The data will be distributed across three tables:
quiz
home_try_on
purchase
Examine the first five rows of each table
What are the column names?

```
SELECT *
FROM quiz
LIMIT 5;
SELECT *
FROM home_try_on
LIMIT 5;
SELECT *
FROM purchase
LIMIT 5;
```

quiz	home_try_on	purchase
user_id	user_id	user_id
style	number_of_pairs	product_id
fit	address	style
Shape		model_name
color		color
		price

Use a LEFT JOIN to combine the three tables, starting with the top of the funnel (browse) and ending with the bottom of the funnel (purchase).

Home Try-On Funnel, Part 2

user_id	is_home_try_on	number_of_pairs	is_purchase
4e8118dc-bb3d-49bf-85fc-cca8d83232ac	1	3 pairs	0
291f1cca-e507-48be-b063-002b14906468	1	3 pairs	1
75122300-0736-4087-b6d8-c0c5373a1a04	0		0
75bc6ebd-40cd-4e1d-a301-27ddd93b12e2	1	5 pairs	0
ce965c4d-7a2b-4db6-9847-601747fa7812	1	3 pairs	1
28867d12-27a6-4e6a-a5fb-8bb5440117ae	1	5 pairs	1
5a7a7e13-fbcf-46e4-9093-79799649d6c5	0		0
0143cb8b-bb81-4916-9750-ce956c9f9bd9	0		0
a4ccc1b3-cbb6-449c-b7a5-03af42c97433	1	5 pairs	0
b1dded76-cd60-4222-82cb-f6d464104298	1	3 pairs	0

```
SELECT DISTINCT quiz.user_id,
            home_try_on.user_id IS NOT NULL AS
            'is_home_try_on',
            home_try_on.number_of_pairs,
            purchase.user_id IS NOT NULL AS 'is_purchase'
FROM quiz
LEFT JOIN home_try_on
            ON quiz.user_id = home_try_on.user_id
LEFT JOIN purchase
            ON purchase.user_id = quiz.user_id
LIMIT 10;
```

Home Try-On Funnel, Part 3 (Analysis)

Does trying on 5 pairs increase the likelihood of purchasing ?

pairs	total users	purchases	Conversion
0	250	0	0
3 pairs	379	201	53%
5 pairs	371	294	79%

Customers who try on 5 pairs of glasses make a purchase 26% more frequently than those who try on 3 pairs.

```
WITH table_1 AS
(SELECT DISTINCT quiz.user_id, home_try_on.user_id IS NOT
NULL AS 'is_home_try_on', home_try_on.number_of_pairs,
purchase.user_id IS NOT NULL AS 'is_purchase'
FROM quiz
LEFT JOIN home_try_on
            ON quiz.user_id = home_try_on.user_id
LEFT JOIN purchase
            ON purchase.user_id = quiz.user_id)
SELECT number_of_pairs AS 'pairs',COUNT(user_id) AS 'total
            users', SUM(is_purchase) AS 'purchases'
FROM table_1
GROUP BY number_of_pairs
;
```