



Warby Parker

Learn SQL from Scratch

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Quiz Funnel

1. Quiz Funnel: Table

Select all columns from the first 10 rows. What columns does the table have?

- question
- user_id
- response

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

Query Results		
question	user_id	response
1. What are you looking for?	005e7f99-d48c-4fce-b605-10506c85aaf7	Women's Styles
2. What's your fit?	005e7f99-d48c-4fce-b605-10506c85aaf7	Medium
3. Which shapes do you like?	00a556ed-f13e-4c67-8704-27e3573684cd	Round
4. Which colors do you like?	00a556ed-f13e-4c67-8704-27e3573684cd	Two-Tone
1. What are you looking for?	00a556ed-f13e-4c67-8704-27e3573684cd	I'm not sure. Let's skip it.
2. What's your fit?	00a556ed-f13e-4c67-8704-27e3573684cd	Narrow
5. When was your last eye exam?	00a556ed-f13e-4c67-8704-27e3573684cd	<1 Year
3. Which shapes do you like?	00bf9d63-0999-43a3-9e5b-9c372e6890d2	Square
5. When was your last eye exam?	00bf9d63-0999-43a3-9e5b-9c372e6890d2	<1 Year
2. What's your fit?	00bf9d63-0999-43a3-9e5b-9c372e6890d2	Medium

2. Quiz Funnel: Responses

Create a quiz funnel using the GROUP BY command.

What is the number of responses for each question?

- Q1: 500
- Q2: 475
- Q3: 380
- Q4: 361
- Q5: 270

```
SELECT question, COUNT(*)  
FROM survey  
GROUP BY question;
```

Query Results	
question	COUNT(*)
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

3. Quiz Funnel: Completion Rate

Which question(s) of the quiz have a lower completion rates?

- Beginning with Q3, completion rate dips down dramatically from 76% for Q3 to 54% for Q5.

What do you think is the reason?

- Lower completion rate correlates with questions relating to shape and color preferences, or recalling their last eye exam. These questions may be difficult to answer for first time users who are either unfamiliar with all the choices or do not remember their last eye exam.

Question	Count	% User
1. What are you looking for?	500	100%
2. What's your fit?	475	95%
3. Which shapes do you like?	380	76%
4. Which colors do you like?	361	72%
5. When was your last eye exam?	270	54%

Home Try-on Funnel

4. Home Try-on Funnel: Table

Examine the first five rows of each table. What are the column names?

- `user_id`
- `style`
- `fit`
- `shape`
- `color`

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

Query Results				
user_id	style	fit	shape	color
4e8118dc-bb3d-49bf-85fc-cca8d83232ac	Women's Styles	Medium	Rectangular	Tortoise
291f1cca-e507-48be-b063-002b14906468	Women's Styles	Narrow	Round	Black
75122300-0736-4087-b6d8-c0c5373a1a04	Women's Styles	Wide	Rectangular	Two-Tone
75bc6ebd-40cd-4e1d-a301-27ddd93b12e2	Women's Styles	Narrow	Square	Two-Tone
ce965c4d-7a2b-4db6-9847-601747fa7812	Women's Styles	Wide	Rectangular	Black

5. Home Try-on Funnel: New Table

We'd like to create a new table with the following layout:

user_id	is_home_try_on	number_of_pairs	is_purchase
4e8118dc	True	3	False
291f1cca	True	5	False
75122300	False	NULL	False

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

Query Results			
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	Ø	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	Ø	0
0143cb8b-bb81-4916-9750-ce956c9f9bd9	0	Ø	0
a4ccc1b3-cbb6-449c-b7a5-03af42c97433	1	5 pairs	0
b1dded76-cd60-4222-82cb-f6d464104298	1	3 pairs	0

Insight: Men vs. Women

Insight: There are similar number of men and women shopping on Warby Parker.

Action: Enable easy and quick filter and tailor to each gender on the website to help them narrow down to the pair of glasses.

```
SELECT style, COUNT(*)  
FROM purchase  
GROUP BY 1  
ORDER BY 2 DESC;
```

Query Results	
style	COUNT(*)
Women's Styles	252
Men's Styles	243

Insight: Model Popularity

Insight: The top 3 models on Warby Parker are Eugene Narrow, Dawes, and Brady.

Action: Offer more varieties of the top 3 models and show them higher in the display results when not filtered by customers. Potentially discontinue Monocle if purchase dips further.

```
SELECT model_name, COUNT(*)  
FROM purchase  
GROUP BY 1  
ORDER BY 2 DESC;
```

Query Results	
model_name	COUNT(*)
Eugene Narrow	116
Dawes	107
Brady	95
Lucy	86
Olive	50
Monocle	41

Insight: Color Popularity

Insight: While Jet Black is the most popular color, other colors are popular too .

Action: Offer more colors to increase product variety will help attract interested customers.

```
SELECT color, COUNT(*)  
FROM purchase  
GROUP BY 1  
ORDER BY 2 DESC;
```

Query Results	
color	COUNT(*)
Jet Black	86
Driftwood Fade	63
Rosewood Tortoise	62
Rose Crystal	54
Layered Tortoise Matte	52
Pearled Tortoise	50
Elderflower Crystal	44
Sea Glass Gray	43
Endangered Tortoise	41

Insight: Price

Insight: The most popular price point is \$95. The least popular price point is \$50.

Action: Price signals quality, reduce the inventory for \$50 and offer more glasses at the \$95 level. Test other price points between \$95 and \$150 to identify the price elasticity.

```
SELECT price, COUNT(*)  
FROM purchase  
GROUP BY 1  
ORDER BY 2 DESC;
```

Query Results	
price	COUNT(*)
95	261
150	193
50	41

Insight: 3 vs 5 pairs

Insight: Customers who tried on 5 pairs of glasses are more likely to purchase (79%) compared to customers who tried on 3 pairs of glasses (53%).

Action: Encourage customers to try on more pairs by offering suggestions. This will increase the conversion rate from try to buy.

```
SELECT
  SUM(h.user_id IS NOT NULL) AS 'is_home_try_on',
  h.number_of_pairs,
  SUM(p.user_id IS NOT NULL) AS 'is_purchase'
FROM quiz q
LEFT JOIN home_try_on h ON q.user_id = h.user_id
LEFT JOIN purchase p ON p.user_id = q.user_id
GROUP BY number_of_pairs;
```

Query Results		
is_home_try_on	number_of_pairs	is_purchase
0	0	0
379	3 pairs	201
371	5 pairs	294