



# Capstone: Funnels with Warby Parker

Learn SQL from Scratch  
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# Quiz Funnel: Task 1

The Warby Parker “Style Quiz” asks the following questions:

1. "What's your fit?"
2. "Which shapes do you like?"
3. "Which colors do you like?"
4. "When was your last eye exam?"

What columns does the table have?  
user\_id, style, fit, shape, and color.

```
1  /* Task 1 */
2  -- Selecting all columns from the first 10
   rows of the survey table
3  SELECT *
4  FROM survey
5  LIMIT 10;
6
7
```

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
28867d12-27a6-4e6a-a5fb-8bb5440117ae	Women's Styles	Narrow	Rectangular	Black
5a7a7e13-fbcf-46e4-9093-79799649d6c5	Women's Styles	Wide	Rectangular	Tortoise
0143cb8b-bb81-4916-9750-ce956c9f9bd9	Women's Styles	Wide	Rectangular	Two-Tone
a4ccc1b3-cbb6-449c-b7a5-03af42c97433	Women's Styles	I'm not sure. Let's skip it.	Square	Tortoise
b1dded76-cd60-4222-82cb-f6d464104298	Women's Styles	Narrow	Rectangular	Crystal



## Quiz Funnel: Task 2

What is the number of responses for each question?

Question 1 - 500

Question 2 - 475

Question 3 - 380

Question 4 - 361

Question 5 - 270

```
1  /*Task 2 */
2  --Aggregating rows to find the number of responses
   for each question
3  SELECT question,
4         COUNT(DISTINCT user_id)
5  FROM survey
6  GROUP BY question;
7
```

question	COUNT(DISTINCT user_id)
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



## Quiz Funnel: Task 3

The latter questions have lower completion rates. This may be in part to customer unknowingness of what colors and shapes they actually like. It can also be said that customers may have lost patience at answering additional questions. The last question, “When was your last eye exam?”, was particularly lower than the rest most likely because customers are disinterested in answering the questions because they are price checking or plan on purchasing the frames without a prescription.

Question	COUNT(DISTINCT user_id)	Percent Completing this Question
What are you looking for?	500	25.18%
What's your fit?	475	23.92%
Which shapes do you like?	380	19.13%
Which colors do you like?	361	18.18%
When was your last eye exam?	270	13.60%

# Quiz Funnel: Task 4

quiz – user\_id, style, fit, shape, color

home\_try\_on – user\_id, number\_of\_pairs, address

purchase – user\_id, product\_id, style, model\_name, color, price

```
1  /*Task 4 */
2  --Displaying the tables for quiz, home_try_on, and
   purchase to ultimately reveal their respective
   columns
3  SELECT *
4  FROM quiz
5  LIMIT 5;
6
7  SELECT *
8  FROM home_try_on
9  LIMIT 5;
10
11 SELECT *
12 FROM purchase
13 LIMIT 5;
```

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

user_id	number_of_pairs	address
d8addd87-3217-4429-9a01-d56d68111da7	5 pairs	145 New York 9a
f52b07c8-abe4-4f4a-9d39-ba9fc9a184cc	5 pairs	383 Madison Ave
8ba0d2d5-1a31-403e-9fa5-79540f8477f9	5 pairs	287 Pell St
4e71850e-8bbf-4e6b-acc4-49a7bb46c586	3 pairs	347 Madison Square N
3bc8f97f-2336-4dab-bd86-e391609dab97	5 pairs	182 Cornelia St

user_id	product_id	style	model_name	color	price
00a9dd17-36c8-430c-9d76-df49d4197dcf	8	Women's Styles	Lucy	Jet Black	150
00e15fe0-c86f-4818-9c63-3422211baa97	7	Women's Styles	Lucy	Elderflower Crystal	150
017506f7-aba1-4b9d-8b7b-f4426e71b8ca	4	Men's Styles	Dawes	Jet Black	150
0176bfb3-9c51-4b1c-b593-87edab3c54cb	10	Women's Styles	Eugene Narrow	Rosewood Tortoise	95
01fdf106-f73c-4d3f-a036-2f3e2ab1ce06	8	Women's Styles	Lucy	Jet Black	150

## Quiz Funnel: Task 5

Attempt at recreating the table for said task. Unable to find a proper way to use “Case” and “IS NOT NULL THEN “TRUE/FALSE” within the statement

```
1  /*Task 5 */
2  --Using LEFT JOIN to combine all three tables
3  SELECT DISTINCT q.user_id,
4     h.user_id IS NOT NULL AS 'is_home_try_on',
5     h.number_of_pairs,
6     p.user_id IS NOT NULL AS 'is_purchase'
7  FROM quiz AS 'q'
8  LEFT JOIN home_try_on 'h'
9     ON q.user_id = h.user_id
10 LEFT JOIN purchase 'p'
11     ON p.user_id = q.user_id
12 LIMIT 20;
```

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-a301-27dd93b12e2	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
8fe8b9a7-d5d0-4aeb-a0d2-b8dd43f50a95	0	∅	0
9fc1bcfe-1c3b-4b78-bb3b-af3586c2f05c	1	5 pairs	1
20b03d28-d39c-46cf-81af-9fb479e823c0	1	5 pairs	1
ffe1b116-6f09-4408-9aba-f0d268c67fbc	1	3 pairs	0
f254b8a3-1c02-42a2-8c7e-2a0a5c57f0f9	1	3 pairs	0
78636c3f-a55e-4296-97c7-fd10aac81042	0	∅	0
f35fa92e-8814-412f-864e-dca97a8aea1e	0	∅	0
f7f2dbff-4e8f-4b5c-b443-b54bad9ef9ae	1	5 pairs	1
4e71850e-8bbf-4e6b-acc4-49a7bb46c586	1	3 pairs	0
5d9e5c70-9f42-4304-bd34-23ab70a79d34	1	3 pairs	0

# Quiz Funnel: Task 6

The aim was to display the web purchase versus the standard purchase by creating a Funnel and aggregating the rows.

```
1  /*Task 6 */
2  --Attempt at capturing the amount of home purchase versus standard
   purchases
3  WITH funnels AS (
4      SELECT q.user_id,
5             h.user_id IS NOT NULL AS 'is_home_try_on',
6             h.number_of_pairs,
7             p.user_id IS NOT NULL AS 'is_purchase'
8      FROM quiz AS 'q'
9      LEFT JOIN home_try_on 'h'
10         ON q.user_id = h.user_id
11      LEFT JOIN purchase 'p'
12         ON p.user_id = q.user_id
13      SELECT COUNT (*) AS 'num_browse',
14             COUNT(
15                 CASE
16                     WHEN is_home_try_on = 0 THEN user_id
17                     ELSE NULL
18                 END) AS 'home_num_checkout',
19             COUNT(
20                 CASE
21                     WHEN is_purchase = 0 THEN user_id
22                     ELSE NULL
23                 END) AS 'num_purchase'
24      FROM funnels;
```

num_browse	home_num_checkout	num_purchase
1000	250	505