

Usage Funnels with Warby Parker

Learn SQL from Scratch

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Question 1:What columns does the table have?

The table “survey” has the following columns: 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

Question 2: *What is the number of responses for each question?*

Questions 1-5 have the following responses, in their respective orders for each questions: 500, 475, 380, 361, 270

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

Query Results	
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

Question 3:

Which question(s) of the quiz have a lower completion rates? What do you think is the reason?

Question 5 had the lowest completion rate, likely because people did not know their last appointment date off the top of their head and had to leave to find the information

Question	Questions Answered	Completion Rate
1	500	100%
2	475	95%
3	380	80%
4	361	95%
5	270	75%

Question 4: Examine the first five rows of each table What are the column names?

Column names for quiz : user_id, style, fit, shape color

Column names for home_try_on : user_id, number_of_pairs, address

Column names for purchase : user_id, product_id, style, model_name, color, price

```
1 SELECT *
2 FROM quiz
3 LIMIT 5;

4
5 SELECT *
6 FROM home_try_on
7 LIMIT 5;

8
9 SELECT *
10 FROM purchase
11 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
d8add87-3217-4429-9a01-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-acc6-49a7bb46c586	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

Question 5: 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). Select only the first 10 rows from this table

No direct question here so here are the raw 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

```
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;
```


Question 7: *What are some actionable insights for Warby Parker?*

Warby Parker can see that 495 out of the 750 people who try on the glasses purchase them, for a conversion rate of 66%.

SUM (is_home_try_on)	SUM(is_purchase)
750	495

```
1 WITH funnel AS(SELECT DISTINCT
2   q.user_id,
3   h.user_id IS NOT NULL AS
4   'is_home_try_on',
5   h.number_of_pairs,
6   p.user_id IS NOT NULL AS
7   'is_purchase'
8 FROM quiz 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 SUM (is_home_try_on),
14 SUM(is_purchase)
15 FROM funnel;
```

Question 7: *What are some actionable insights for Warby Parker?*

Going one step further, Warby Parker can see that 294 out of the 371 (79% conversion) people who tried on 5 pairs made a purchase, while only 201 of the 379 (53% conversion) with 3 pairs did.

They should send 5 pairs instead of 3!

Query Results

SUM (is_home_try_on)	SUM(is_purchase)	number_of_pairs
0	0	∅
379	201	3 pairs
371	294	5 pairs

```
1 WITH funnel AS (SELECT DISTINCT q.user_id,
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3     'is_home_try_on',
4     h.number_of_pairs,
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6 FROM quiz q
7 LEFT JOIN home_try_on h
8     ON q.user_id = h.user_id
9 LEFT JOIN purchase p
10     ON p.user_id = q.user_id)
11 SELECT SUM (is_home_try_on),
12     SUM(is_purchase), number_of_pairs
13 from funnel
14 GROUP BY number_of_pairs;
```


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13 from funnel
14 GROUP BY number_of_pairs;
```

Question 7: *What are some actionable insights for Warby Parker?*

Warby can see tha Jet Black is the most commonly purchased color, and the 95 is the price point with the most purchases!

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

```
1 SELECT COUNT(*), color
2   from purchase
3   GROUP BY color;
```

```
1 SELECT COUNT(*), price
2   from purchase
3   GROUP BY price;
4
```

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

Question 7: *What are some actionable insights for Warby Parker?*

Warby can see that women's styles are slightly more popular than Men's, but nearly 10% of their customers aren't sure

COUNT(*)	style
99	I'm not sure. Let's skip it.
432	Men's Styles
469	Women's Styles

```
SELECT COUNT(*), style
from quiz
GROUP BY style;
```