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WARBY PARKER

Usage Funnels with Warby Parker

Learn SQL from Scratch

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In this Capstone Project, I'll be analyzing different Warby Parker's marketing funnels in order to calculate conversion rates. Here are the funnels and the tables that are given:

1. Quiz Funnel:

a. survey

2. Home Try-On Funnel:

a. quiz

b. home_try_on

c. Purchase

3. Action Items

1.1 Quiz Funnel

To help users find their perfect frame, Warby Parker has a [Style Quiz](#) that has the following questions:

1. "What are you looking for?"
2. "What's your fit?"
3. "Which shapes do you like?"
4. "Which colors do you like?"
5. "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? (three shown below)

```
1 SELECT *
2 FROM survey
3 LIMIT 10;
```

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

1.2 Quiz Funnel

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	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

```
1 SELECT question as "Question",  
2     COUNT(DISTINCT user_id) as "Count"  
3 FROM survey  
4 GROUP BY 1;
```

1.3 Quiz Funnel



[Using a spreadsheet program like Excel or Google Sheets](#), I've calculated the percentage of users who answer each question:

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

What do you think is the reason?

Question	Count	Funnel	Potential reasons for Drop
1. What are you looking for?	500	100.00%	
2. What's your fit?	475	95.00%	Some users don't know their fit...
3. Which shapes do you like?	380	76.00%	Some users don't know their shapes...
4. Which colors do you like?	361	72.20%	Some users don't know or like the colors...
5. When was your last eye exam?	270	54.00%	It takes time/memory to know when the last eye exam was...

2.1 Home Try-On Funnel



Warby Parker's purchase funnel is:

Take the Style Quiz → Home Try-On → Purchase the Perfect Pair of Glasses

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?

```
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;
```

`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
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2.2 Home Try-On Funnel



Each row will represent a single user from the browse table:

- If the user has any entries in `home_try_on`, then `is_home_try_on` will be 'True'.
- `number_of_pairs` comes from `home_try_on` table
- If the user has any entries in `is_purchase`, then `is_purchase` will be 'True'.

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).

```
1 SELECT DISTINCT q.user_id,  
2     CASE WHEN h.user_ID IS NOT NULL  
3     THEN 'True' ELSE 'False'  
4 END AS 'is_home_try_on',  
5     h.number_of_pairs,  
6     CASE WHEN p.user_id IS NOT NULL  
7     THEN 'True' ELSE 'False'  
8 END AS 'is_purchase'  
9 FROM quiz q  
10 LEFT JOIN home_try_on h  
11     ON q.user_id = h.user_id  
12 LEFT JOIN purchase p  
13     ON p.user_id = q.user_id  
14 LIMIT 10;
```

user_id	is_home_try_on	number_of_pairs	is_purchase
4e8118dc-bb3d-49bf-85fc-cca8d83232ac	True	3 pairs	False
291f1cca-e507-48be-b063-002b14906468	True	3 pairs	True
75122300-0736-4087-b6d8-c0c5373a1a04	False		False
75bc6ebd-40cd-4e1d-a301-27ddd93b12e2	True	5 pairs	False
ce965c4d-7a2b-4db6-9847-601747fa7812	True	3 pairs	True

2.2 Home Try-On Funnel



What are some actionable insights for Warby Parker?

- The most common results of the style **quiz**.
- How many users tried on and purchased?

```
1 SELECT style AS 'Style', COUNT(style) AS 'COUNT'
2 FROM quiz
3 GROUP BY style
4 ORDER BY 2 DESC;
```

Style	Count
Women's Styles	469
Men's Styles	432
I'm not sure. Let's skip it.	99

```
1 WITH funnel AS
2 (SELECT q.user_id,
3      h.user_id IS NOT NULL AS 'is_home_try_on',
4      h.number_of_pairs,
5      p.user_id IS NOT NULL AS 'is_purchase'
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 COUNT(*) AS 'Total Leads',
12 SUM(is_home_try_on) AS 'Tried On',
13 SUM(is_purchase) AS 'Purchased',
14 1.0 * SUM(is_home_try_on) / COUNT(user_id) AS 'Percent Tried On',
15 1.0 * SUM(is_purchase) / SUM(is_home_try_on) AS 'Percent
16 Purchased'
17 FROM funnel;
```

Total Leads	Tried On	Purchased	Percent Tried On	Percent Purchased
1000	750	495	0.75	0.66

Action Items



Obviously, the main goal is to sell more pairs of glasses. 66% is not bad but to increase that number, I would be interested in digging into the data to separate out those who dropped in between the funnel levels and their reasons why. Beyond this I think it would be interesting to add in and relate behavioral data of individual users to those who dropped off.