codecademy

Warby Parker

Analyze Data with SQL

Yu Chiang

April 2023

Table of Contents

1. Quiz Funnel

1.1 Table Structure

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?” This is the one with lower completion.maybe most users don’t’know or don’t want to share the information.
The users’ responses are stored in a table called survey.

- Some users exit the survey after answering the first question
- Calculate the total number of people who completed each question and the completion rate of people who completed each question

question	users_count	completion_rates
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%

```
SELECT * FROM survey;


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

2. Home Try On Funnel

2.1 Table Structure

Warby Parker's purchase funnel is:
Take the Style Quiz → Home Try-On → Purchase the Perfect Pair of Glasses
The data is distributed across three tables:
1.quiz
2.home_try_on
3.purchase

- **LEFT JOIN all tables**
- **calculate overall conversion rates by aggregating across all rows.**

user_quiz	user_home_try_on	user_purchase
1000	750	495

```
WITH funnels AS (
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
)
SELECT COUNT(*) AS 'user_quiz',
SUM(is_home_try_on)
AS'user_home_try_on',SUM(is_purchase
)AS'user_purchase'
FROM funnels;
```

3.Overall Conversion Rates

3.1 Quiz To home_try_on → home_try_on to purchase

From Quiz To home_try_on, home_try_on To purchase

- **Calculate the proportion of users who continue to the home try on after completing style quiz.**
- **Then, calculate the proportion of users who continue to the purchase after completing the home try on.**

quiz_to_home_try_on	home_try_on_to_purchase
0.75	0.66

```
WITH funnels AS (
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
)
SELECT 1.0 * SUM(is_home_try_on) /
COUNT(*)
AS 'quiz_to_home_try_on',
1.0 * SUM(is_purchase) /
SUM(is_home_try_on)
AS 'home_try_on_to_purchase'
FROM funnels;
```

3.2 Difference In 3 and 5 pairs

- **calculate the difference in total between customers who had 3 number_of_pairs with ones who had 5.**

number_of_pairs	customers
3 pairs	201
5 pairs	294

```
WITH funnels AS (
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
)
SELECT number_of_pairs,
COUNT(*) AS'customers'
FROM funnels
WHERE is_home_try_on = 'True' AND
is_purchase = 'True'
GROUP BY number_of_pairs;
```

4. Trends

4.1

- **The most common style in purchase. A: Women’s Styles 252**
- **The most common style in browse. A:Women’s styles 469**
- **The top selling model**

style	total
Women's Styles	252
Men's Styles	243

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

```
SELECT style,COUNT(*)AS'total'
FROM purchase
GROUP BY style
ORDER BY style DESC;


SELECT style,COUNT(*)AS'total'
FROM quiz
GROUP BY style
ORDER BY style DESC;
```

4.2 Top Selling Model

- **The top selling model. A: Eugene Narrow 116**

style	model_name	total
Women's Styles	Eugene Narrow	116
Men's Styles	Dawes	107
Men's Styles	Brady	95
Women's Styles	Lucy	86
Women's Styles	Olive	50
Men's Styles	Monocle	41

```
SELECT style,
model_name,COUNT(*)AS'total'
FROM purchase
GROUP BY style,model_name
ORDER BY 3 DESC;
```