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Warby Parker Project

Analyze Data with SQL
Usage Insights Funnels
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Table of Contents

1. Introduction

Warby Parker

Warby Parker is a transformative lifestyle brand with a lofty objective: to offer designer eyewear at a revolutionary price while leading the way for socially conscious businesses.
In this project, we will analyze different Warby Parker´s marketing funnels in order to calculate conversion rates. The progression through a series of steps in a web application is known as a funnel.
We will analyze the following funnels and tables:
- Quiz Funnel:
  - Survey
- Home Try-On Funnel
  - Quiz
  - Home try on
  - Purchase

2. Quiz Tunnel

2.1 The Quiz - Completion Rates

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?"

```sql
SELECT question AS 'Question',
  COUNT(DISTINCT user_id) AS 'Number of Answers'
FROM survey
GROUP BY question;
```

Question	Number of Answers	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	74,79

2.2 Most popular responses

Which are the most popular responses to the quiz?:
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?"

```
SELECT DISTINCT question,
  MAX(mycount) as "number",
  response AS " most popular reponse"
FROM(SELECT question,
      Response,
      COUNT(response) AS "mycount"
    FROM survey
    GROUP BY 2)
    GROUP BY 1;
```

question	number	most popular reponse
1. What are you looking for?	242	Men's Styles
2. What's your fit?	208	Narrow
3. Which shapes do you like?	141	Rectangular
4. Which colors do you like?	117	Tortoise
5. When was your last eye exam?	141	<1 Year

3. Home Try-On Funnel

3.1 Home Try-On Funnel - Completion Rates

Warby Parker's purchase funnel is:
1. Take the Style Quiz
2. Home Try-On
3. Purchase the Perfect Pair of Glasses

75 % of those who took the quiz tried the glasses at home and 66% of them purchased them.

quiz	home_try_on	purchase	quiz_home_try	home_try_purchase
1000	750	495	0.75	0.66

```sql
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 AS "q"
LEFT JOIN home_try_on AS "h"
ON q.user_id = h.user_id
LEFT JOIN purchase AS "p"
ON q.user_id = p.user_id)
SELECT COUNT(user_id) AS "quiz",
SUM(is_home_try_on) AS "home_try_on",
SUM(is_purchase) AS "purchase",
1.0 * SUM(is_home_try_on) / COUNT(user_id) AS
"quiz_home_try",
1.0 * SUM(is_purchase)/ SUM(is_home_try_on) AS
"home_try_purchase"
FROM funnels;
```

3.2 A/B Test

During the Home Try-On stage, we will be conducting an A/B Test:
-    50% of the users will get 3 pairs to try on
-    50% of the users will get 5 pairs to try on

It seems that the A/B Test works and sales increased from 53% to 79% from those who got 3 pairs of glasses to try on to those who got 5 pairs.

number_of_pairs	customers	home_try_on	purchase	home_try_purchase
Ø	250	0	0	Ø
3 pairs	379	379	201	0.530343007915567
5 pairs	371	371	294	0.792452830188679

```sql
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 AS "q"
LEFT JOIN home_try_on AS "h"
ON q.user_id = h.user_id
LEFT JOIN purchase AS "p"
ON q.user_id = p.user_id)
SELECT number_of_pairs,
COUNT(user_id) AS "customers",
SUM(is_home_try_on) AS "home_try_on",
SUM(is_purchase) AS "purchase",
1.0 * SUM(is_purchase) / SUM(is_home_try_on) AS
"home_try_purchase"
FROM funnels
GROUP BY 1
ORDER BY 1;
```