Warby Parker Project

1.To help users find their perfect frame, Warby Parker has a [Style Quiz](https://www.warbyparker.com/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?

Answer:

 SELECT \*

 FROM survey

 LIMIT 10;

|  |  |
| --- | --- |
| question | TEXT |
| user\_id | TEXT |
| response | TEXT |

2. 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?*

 SELECT question, COUNT(user\_id)

 FROM survey

 GROUP BY question;

|  |  |
| --- | --- |
| **question** | **COUNT(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 |

3. Using a spreadsheet program like Excel or Google Sheets, calculate 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(user\_id)** | **Completion rate** |
| 1. What are you looking for? | 500 | 100% |
| 2. What's your fit? | 475 | 95% |
| 3. Which shapes do you like? | 380 | 76% |
| 4. Which colors do you like? | 361 | 72.2% |
| 5. When was your last eye exam? | 270 | 54% |

4. Warby Parker’s purchase funnel is:

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

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

Let’s find out whether or not users who get more pairs to try on at home will be more likely to make a purchase.

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?

**home\_try\_on**

|  |  |
| --- | --- |
| **name** | **type** |
| user\_id | TEXT |
| number\_of\_pairs | TEXT |
| address | TEXT |

|  |
| --- |
| **Rows: 750** |

**purchase**

|  |  |
| --- | --- |
| **name** | **type** |
| user\_id | TEXT |
| product\_id | INTEGER |
| style | TEXT |
| model\_name | TEXT |
| color | TEXT |
| price | INTEGER |

|  |
| --- |
| **Rows: 495** |

**quiz**

|  |  |
| --- | --- |
| **name** | **type** |
| user\_id | TEXT |
| style | TEXT |
| fit | TEXT |
| shape | TEXT |
| color | TEXT |

5.We’d like to create a new table with the following layout:

| **user\_id** | **is\_home\_try\_on** | **number\_of\_pairs** | **is\_purchase** |
| --- | --- | --- | --- |
| 4e8118dc | True | 3 | False |
| 291f1cca | True | 5 | False |
| 75122300 | False | NULL | False |

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 purchase, then is\_purchase will be True.

Use a LEFT JOIN to combine the three tables, starting with the top of the funnel (quiz) and ending with the bottom of the funnel (purchase).

Select only the first 10 rows from this table (otherwise, the query will run really slowly).

SELECT 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

LIMIT 10;

6.Once we have the data in this format, we can analyze it in several ways:

* We can calculate overall conversion rates by aggregating across all rows.
* We can compare conversion from quiz→home\_try\_on and home\_try\_on→purchase.
* We can calculate the difference in purchase rates between customers who had 3 number\_of\_pairs with ones who had 5.
* And more!

We can also use the original tables to calculate things like:

* The most common results of the style quiz.
* The most common types of purchase made.
* And more!

What are some actionable insights for Warby Parker?