



Capstone Project

(Funnels with Warby Parker)

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1. Columns from survey

Columns From Survey

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Learn SQL from Scratch: Funnels

Objective

Tasks 1/7 Complete

-- starts a single line comment. The text after -- will be ignored (not executed).

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?

Stick? Get a hint

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 rate?

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project.sqlite

```
1 Select * From Survey
2 Limit 10;
```

Save

Query Results

| question | user_id |
|---------------------------------|----------------------------------|
| 1. What are you looking for? | 005e7f99-d48c-4fce-b605-10506c8f |
| 2. What's your fit? | 005e7f99-d48c-4fce-b605-10506c8f |
| 3. Which shapes do you like? | 00a556ed-f13e-4c67-8704-27e3573f |
| 4. Which colors do you like? | 00a556ed-f13e-4c67-8704-27e3573f |
| 1. What are you looking for? | 00a556ed-f13e-4c67-8704-27e3573f |
| 2. What's your fit? | 00a556ed-f13e-4c67-8704-27e3573f |
| 5. When was your last eye exam? | 00a556ed-f13e-4c67-8704-27e3573f |
| 3. Which shapes do you like? | 00bf9d63-0999-43a3-9e5b-9c372e6f |
| 5. When was your last eye exam? | 00bf9d63-0999-43a3-9e5b-9c372e6f |
| 2. What's your fit? | 00bf9d63-0999-43a3-9e5b-9c372e6f |

Database Schema

| home_try_on 750 rows | |
|----------------------|------|
| user_id | TEXT |
| number_of_pairs | TEXT |
| address | TEXT |

| purchase 495 rows | |
|-------------------|---------|
| user_id | TEXT |
| product_id | INTEGER |
| style | TEXT |
| model_name | TEXT |
| color | TEXT |
| price | INTEGER |

| survey 1986 rows | |
|------------------|------|
| question | TEXT |
| user_id | TEXT |
| response | TEXT |

| quiz | |
|---------|------|
| user_id | TEXT |

Usage Funnels with Warby Parker 1/7 Complete Up Next Get Help

2. Creating a Quiz Funnel using Group By

Creating a Quiz Funnel using Group By

Objective

Tasks1/7 Complete

called `survey`.

Select all columns from the first 10 rows.
What columns does the table have?

Stuck? Get a hint

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?

Stuck? Get a hint

3. Using a spreadsheet program like Excel or Google Sheets, calculate the percentage of

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```
1 Select question, Count (Distinct user_id)
2 From Survey
3 Group by question;
4
```

Save

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 |

Database Schema

| home_try_on750 rows | |
|---------------------|------|
| user_id | TEXT |
| number_of_pairs | TEXT |
| address | TEXT |

| purchase495 rows | |
|------------------|---------|
| user_id | TEXT |
| product_id | INTEGER |
| style | TEXT |
| model_name | TEXT |
| color | TEXT |
| price | INTEGER |

| survey1986 rows | |
|-----------------|------|
| question | TEXT |
| user_id | TEXT |
| response | TEXT |

| quiz1000 rows | |
|---------------|------|
| user_id | TEXT |
| style | TEXT |
| fit | TEXT |
| shape | TEXT |
| color | TEXT |

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3. Percentage calculation using Excel

| | A | B | C | D | E | F | G | H | I |
|---|----------|-------|----------|---|---|---------------------------------|---|----|---|
| 1 | | | | | | | | | |
| 2 | Question | Count | % | | | | | | |
| 3 | 1 | 500 | 100 | | | how percentages were calculated | | | |
| 4 | 2 | 475 | 95 | | | $(475/500) * 100$ | | 95 | |
| 5 | 3 | 380 | 80 | | | | | | |
| 6 | 4 | 361 | 95 | | | | | | |
| 7 | 5 | 270 | 74.79224 | | | | | | |
| 8 | | | | | | | | | |

Questions 3 and 5 are the ones with the lowest completion rates showing 80% and 75% respectively.

Question 3 does not seem that relevant to choosing a product and for question 5 lack of frequent eye exams which leads to poor or no recollection of a earlier exams may be the reason for the low response.

4. Warby Parker purchase funnel

Warby Parker Purchase Funnel

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Objective

Tasks

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:

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```
1 Select * From Quiz
2 Limit 5;
3
4 Select * From Home_Try_On
5 Limit 5;
6
7 Select * From Purchase
8 Limit 5;
9
```

Query Results

| 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-d56d6811da7 | 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-acc4-49a7bb46c586 | 3 pairs | 347 Madison Square N |
| 3bc8f97f-2336-4dab-bd86-e391609dab97 | 5 pairs | 182 Cornelia St |

| user_id | product_id | style | model_name | color |
|--------------------------------------|------------|----------------|---------------|---------------------|
| 00a9dd17-36c8-430c-9d76-df49d4197dcf | 8 | Women's Styles | Lucy | Jet Black |
| 00e15fe0-c86f-4818-9c63-3422211baa97 | 7 | Women's Styles | Lucy | Elderflower Crystal |
| 017506f7-aba1-4b9d-8b7b-f4426e71b8ca | 4 | Men's Styles | Dawes | Jet Black |
| 0176bfb3-9c51-4b1c-b593-87edab3c54cb | 10 | Women's Styles | Eugene Narrow | Rosewood Tortoise |
| 01fd106-f73c-4d3f-a036-2f3e2ab1ce06 | 8 | Women's Styles | Lucy | Jet Black |

Database Schema

| home_try_on | | 750 rows |
|-----------------|------|----------|
| user_id | TEXT | |
| number_of_pairs | TEXT | |
| address | TEXT | |

| purchase | | 495 rows |
|------------|---------|----------|
| user_id | TEXT | |
| product_id | INTEGER | |
| style | TEXT | |
| model_name | TEXT | |
| color | TEXT | |

Usage Funnels with Warby Parker

4/7 Complete

Next

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5. Merging 3 tables using the Left Join

Merging 3 tables using the Left Join

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Learn SQL from Scratch: Funnels

Objective

Tasks 4/7 Complete

What are the column names?

Stuck? Get a hint

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

| user_id | is_home_try_on | number_of_pairs |
|----------|----------------|-----------------|
| 4e8118dc | True | 3 |
| 291f1cca | True | 5 |
| 75122300 | False | NULL |

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

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project.sqlite

```
1 SELECT DISTINCT quiz.user_id,
2   home_try_on.user_id IS NOT
3   NULL AS 'is_home_try_on',
4   home_try_on.number_of_pairs,
5   purchase.user_id IS NOT NULL
6   AS 'is_purchase'
7 FROM quiz
8
9 LEFT JOIN home_try_on
10  ON quiz.user_id =
11  home_try_on.user_id
12 LEFT JOIN purchase
13  ON purchase.user_id =
14  quiz.user_id
15 LIMIT 10;
```

Save

Query 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 | 0 | 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 | 0 | 0 |
| 0143cb8b-bb81-4916-9750-ce956c9f9bd9 | 0 | 0 | 0 |
| a4ccc1b3-cbb6-449c-b7a5-03af42c97433 | 1 | 5 pairs | 0 |
| b1dded76-cd60-4222-82cb-f6d464104298 | 1 | 3 pairs | 0 |

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| number_of_pairs | TEXT |
| address | TEXT |

| purchase 495 rows | |
|-------------------|---------|
| user_id | TEXT |
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| style | TEXT |
| model_name | TEXT |
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| price | INTEGER |

| survey 1986 rows | |
|------------------|------|
| question | TEXT |
| user_id | TEXT |
| response | TEXT |

| quiz | |
|---------|------|
| user_id | TEXT |

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6. Actionable Insights

Actionable Insights.

- When customers try on at least 5 pairs they tend to purchase at least one of them whereas when they on try three pairs the purchase is considerably lower. Therefore, Warby parker should advice employees to make or encourage customers to try on at least 5 pairs as that will make them more susceptible to purchase at least one pair.

Thank You!