

CODEACADEMY CAPSTONE

“Learn SQL from Scratch”

Andria Baisley’s attempt at funneling

July 16, 2018

THANK YOU

I would like to thank whomever is going through this attempt at funnel coding, in advance. I had 0 knowledge, experience or exposure to SQL before I started and nearly everyone I talked to about it gave me a lot of horrified looks that I had willingly paid to learn this program coding language.

It's been an insanely useful class, including hair-pulling frustration and crazed celebratory cheers when I finally figured a bit of code out on my own. In other words, it was fun!

Thanks! And happy coding!

THE CAPSTONE PROJECT:

WARBY PARKER

"FUNNELING IT UP"

Step One: Getting to know Warby Parker

Here we begin with a query that gives us a general feel for the tables we have available.

This allows for a good baseline moving forward.

Limit set to 10 for brevity.

| project.sqlite | | Query Results | | |
|----------------|-------------|---------------------------------|--------------------------------------|------------------------------|
| | | question | user_id | response |
| 1 | SELECT * | 1. What are you looking for? | 005e7f99-d48c-4fce-b605-10506c85aaf7 | Women's Styles |
| 2 | FROM survey | 2. What's your fit? | 005e7f99-d48c-4fce-b605-10506c85aaf7 | Medium |
| 3 | LIMIT 10; | 3. Which shapes do you like? | 00a556ed-f13e-4c67-8704-27e3573684cd | Round |
| 4 | | 4. Which colors do you like? | 00a556ed-f13e-4c67-8704-27e3573684cd | Two-Tone |
| | | 1. What are you looking for? | 00a556ed-f13e-4c67-8704-27e3573684cd | I'm not sure. Let's skip it. |
| | | 2. What's your fit? | 00a556ed-f13e-4c67-8704-27e3573684cd | Narrow |
| | | 5. When was your last eye exam? | 00a556ed-f13e-4c67-8704-27e3573684cd | <1 Year |
| | | 3. Which shapes do you like? | 00bf9d63-0999-43a3-9e5b-9c372e6890d2 | Square |
| | | 5. When was your last eye exam? | 00bf9d63-0999-43a3-9e5b-9c372e6890d2 | <1 Year |
| | | 2. What's your fit? | 00bf9d63-0999-43a3-9e5b-9c372e6890d2 | Medium |



Find your perfect frames

Answer a few quick questions and
we'll suggest some great-looking
frames to try on at home—for free!

Take the quiz



Let's see what
happens as users
take this quiz to
find their perfect
frames.

We're going to run
a query to see
when users leave
the quiz and then
we'll make some
assertions as to
why that may
happen.

Let's begin!

I DON'T WANT TO GIVE YOU UP:

The prompt for this code was to see when users “gave up” in the quiz process of Warby Parker. Below are the query results:

| Learn SQL from Scratch: Funnels | | Query Results | |
|---------------------------------|--|---------------------------------|-------------------------|
| project.sqlite | | question | COUNT(DISTINCT user_id) |
| 1 SELECT question, | | 1. What are you looking for? | 500 |
| 2 COUNT(DISTINCT user_id) | | 2. What's your fit? | 475 |
| 3 FROM survey | | 3. Which shapes do you like? | 380 |
| 4 GROUP BY question; | | 4. Which colors do you like? | 361 |
| | | 5. When was your last eye exam? | 270 |
| | | Database Schema | |

As you can see, user interaction begins to decrease on question three, continuing to sharply decline by question five.

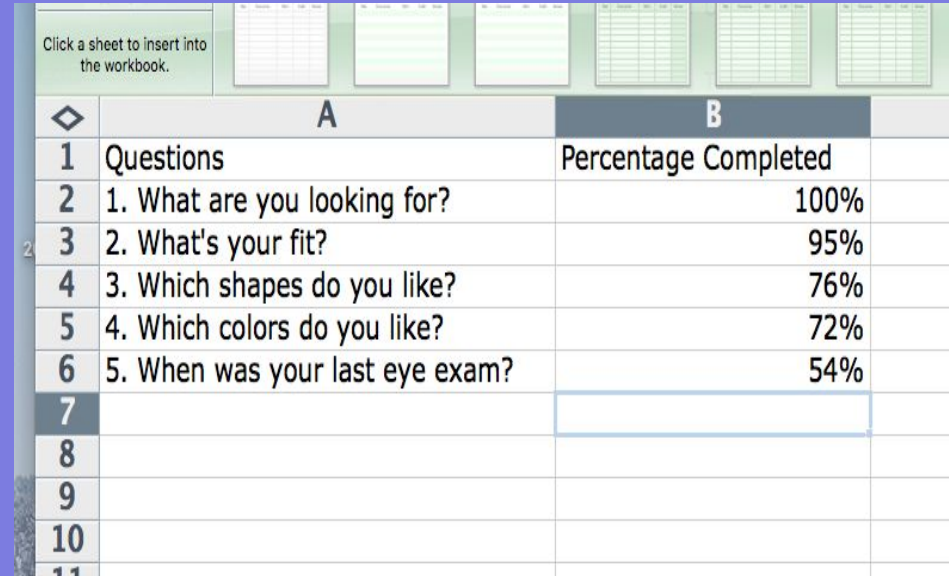
WHAT DO THESE RESULTS TELL US?

Take a look at the excel worksheet on the right. There we see the percentage values of user completion. Note the 18% difference between #4 and #5.

There can be several causal factors as to why user interaction decreases.

Let's examine some of the possibilities:

1. Time: They did not factor in the time it took to take this quiz
2. Interruptions: Break ending, getting a phone call, etc.
3. Did not know: #5 queries the user's last eye exam. Users either did not have that information on hand or do not know it.
4. Loss of Interest: Users decided to forgo the style quiz for browsing the online catalog
5. Impatience: Users were simply ready to get to their results to start shopping



The image shows a screenshot of an Excel spreadsheet. At the top, there is a tab bar with several tabs, and a message that says "Click a sheet to insert into the workbook." The spreadsheet has two columns, A and B. Column A contains a list of five questions, and Column B contains the corresponding completion percentages. The data is as follows:

| | A | B |
|----|---------------------------------|----------------------|
| 1 | Questions | Percentage Completed |
| 2 | 1. What are you looking for? | 100% |
| 3 | 2. What's your fit? | 95% |
| 4 | 3. Which shapes do you like? | 76% |
| 5 | 4. Which colors do you like? | 72% |
| 6 | 5. When was your last eye exam? | 54% |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |

project.sqlite

```
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;
```

WARBY PARKER

PURCHASE FUNNEL

WARBY PARKER USES A PURCHASE FUNNEL PROCESS OF:
QUIZ - HOME TRY ON- FINAL PURCHASE.

THE QUERY TO THE LEFT WAS TO ESTABLISH WHAT IS INCLUDED IN EACH TABLE, RESULTS LISTED BELOW:

Quiz Table includes:

User Id, Style, Fit, Shape and Color

Home Try On Table includes:

User Id, the number of pairs and address box was sent to

Purchase Table includes

User Id, Product Id, Style, Name of Model, Color, and Price

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-d56d68111da7 | 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-acc-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 | price |
| 00a9dd17-36c8-430c-9d76-df49d4197dcf | 8 | Women's Styles | Lucy | Jet Black | 150 |
| 00e15fe0-c86f-4818-9c63-3422211baa97 | 7 | Women's Styles | Lucy | Elderflower Crystal | 150 |
| 017506f7-aba1-4b9d-8b7b-f4426e71b8ca | 4 | Men's Styles | Dawes | Jet Black | 150 |
| 0176bfb3-9c51-4b1c-b593-87edab3c54cb | 10 | Women's Styles | Eugene Narrow | Rosewood Tortoise | 95 |
| 01fdf106-f73c-4d3f-a036-2f3e2ab1ce06 | 8 | Women's Styles | Lucy | Jet Black | 150 |

Database Schema

WARBY PARKER FUNNELS: LEFT JOIN

The below query utilizes the Left Join SQL command to join “home try on”, “number of pairs” and “purchase” tables with a limit result of 10. The following image shows the results. Let’s work through the numbers!

If you look closely, you will see that out of the 10 users, 7 requested a home try on box. 4 users requested their box include 3 pairs of glasses, and 3 users requested that their box include 5 pairs of glasses. Out of this total of 7 users and 7 boxes, 4 users made a purchase. This is a 70% purchase rate.

| | | | | | |
|---|--|--------------------------------------|----------------|-----------------|-------------|
| project.sqlite | | Query Results | | | |
| <pre>1 SELECT DISTINCT q.user_id, 2 h.user_id IS NOT NULL AS 'is_home_try_on', 3 h.number_of_pairs, 4 p.user_id IS NOT NULL AS 'is_purchase' 5 FROM quiz q 6 LEFT JOIN home_try_on h 7 ON q.user_id = h.user_id 8 LEFT JOIN purchase p 9 ON p.user_id = q.user_id 10 LIMIT 10; 11</pre> | | 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 | Ø | 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 | Ø | 0 |
| | | 0143cb8b-bb81-4916-9750-ce956c9f9bd9 | 0 | Ø | 0 |
| | | a4ccc1b3-cbb6-449c-b7a5-03af42c97433 | 1 | 5 pairs | 0 |
| | | b1dded76-cd60-4222-82cb-f6d464104298 | 1 | 3 pairs | 0 |
| | | Database Schema | | | |
| | | home_try_on | | | |
| | | 750 rows | | | |
| | | TFYT | | | |

WARBY PARKER ACTIONABLE RESULTS



WARBY PARKER
eyewear

ACTIONABLE RESULTS

Some actionables for Warby Parker to consider:

1. Shorten the Style Quiz

- a. Unless the last eye exam information is vital to the process, my initial suggestion is that they remove it.

2. Do season specific choices

- a. Try doing a season specific pick options box that includes colors popular for that season.

3. Streamline the process by having ready-made shape boxes

- a. It seems that once users received their boxes, they were more likely to actually purchase a pair from Warby Parker. I suggest that Warby Parker take the 5 most popular options for each glass shape (oval, square, rectangle, etc) by male or female and have a “click and send” event.