



# Warby Parker Capstone

Learn SQL from Scratch

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# Warby Parker background

“By circumventing traditional channels, designing glasses in-house, and engaging with customers directly, we’re able to provide higher-quality, better-looking prescription eyewear at a fraction of the going price.” –warbyparker.com



# User experience

# Online user experience

- When the customer comes to the Warby Parker website, they have a few options for user experiences that should hopefully lead to a purchase:
- They can either take an online quiz, select home try-on, and then purchase after trying the glasses on at home
- They can bypass the quiz, select the frames they want to try on, and purchase after trying the glasses on at home,
- Bypass both the quiz and the home try on, and purchase straight from the website



Online quiz



Home try on



Purchase

# 1.1 Quiz response evaluation

- The Warby Parker quiz consists of 5 questions that requested the customer's style preferences as well as a eye prescription information
- The 4<sup>th</sup> and 5<sup>th</sup> questions have the lowest completion rates most likely due to user drop off as the quiz went on resulting in lower user engagement as well as the 5<sup>th</sup> question requested medical information that the user may not have had access to at the time or did not want to answer

Question	Number of responses	Percentage of response
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%

**Actionable insights**

# Are users who get more pairs to try on at home more likely to make purchase?

- Out of 1000 people, 750 people did try on at home
- Out of the 750 people that did try on at home, 495 people made a purchase- 66% conversation rate
- For 5 pairs tried on, 79% of users ended up buying the glasses
- For 3 pairs tried on, 53% of users ended up buying the glasses

Number of paris	Number purchased	Number of users
0	0	250
3	201	379
5	294	371

```
select number_of_pairs, sum(is_purchase) as num_purc,
count(distinct user_id) as num_user from
(
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) f
group by number_of_pairs;
```

number_of_pairs	num_purc	num_user
0	0	250
3 pairs	201	379
5 pairs	294	371



# Most popular style from quiz result

- It was found that the most popular style result from the quiz was a men's narrow, rectangular, tortoise style
- For women, the most popular style was narrow, rectangular, and black

Query Results				
style	fit	shape	color	COUNT (*)
Men's Styles	Narrow	Rectangular	Tortoise	23
Women's Styles	Narrow	Rectangular	Black	20
Women's Styles	Narrow	Rectangular	Tortoise	20
Men's Styles	Medium	Rectangular	Tortoise	19
Men's Styles	Narrow	Rectangular	Black	18
Men's Styles	Medium	Rectangular	Black	17
Men's Styles	Narrow	Square	Tortoise	16
Women's Styles	Medium	Rectangular	Tortoise	16
Women's Styles	Medium	Square	Tortoise	16
Women's Styles	Narrow	Square	Crystal	16

```
SELECT style, fit, shape, color, COUNT (*)
FROM quiz
GROUP BY 1,2,3,4
ORDER BY 5 DESC
LIMIT 10;
```

# Most popular style purchase

- Most popular style purchase for men was Brady, Layered Tortoise Matte
- Most popular style purchase for women was Olive, Pearled Tortoise

```
SELECT
product_id, style, model_name, color, price, COUNT (*)
FROM purchase
GROUP BY 1,2,3,4,5;
```

Query Results					
product_id	style	model_name	color	price	COUNT (*)
1	Men's Styles	Brady	Layered Tortoise Matte	95	52
2	Men's Styles	Brady	Sea Glass Gray	95	43
3	Men's Styles	Dawes	Driftwood Fade	150	63
4	Men's Styles	Dawes	Jet Black	150	44
5	Men's Styles	Monocle	Endangered Tortoise	50	41
6	Women's Styles	Olive	Pearled Tortoise	95	50
7	Women's Styles	Lucy	Elderflower Crystal	150	44
8	Women's Styles	Lucy	Jet Black	150	42
9	Women's Styles	Eugene Narrow	Rose Crystal	95	54
10	Women's Styles	Eugene Narrow	Rosewood Tortoise	95	62

# Join table- creating boolean values

- Sample of code that reflects changing 0 and 1 variables that represent true and false for “home try ons” and if the user ended up making the purchase after they tried on at home or not

```
SELECT DISTINCT q.user_id,  
    CASE WHEN h.user_id IS NOT NULL THEN 'True' ELSE  
    'False' END AS 'is_home_try_on',  
    h.number_of_pairs,  
    CASE WHEN p.user_id IS NOT NULL THEN 'True' ELSE  
    'False' END 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  
LIMIT 10;
```

Query Results

user_id	is_home_try_on	number_of_pairs	is_purchase
4e8118dc-bb3d-49bf-85fc-cca8d83232ac	True	3 pairs	False
291f1cca-e507-48be-b063-002b14906468	True	3 pairs	True
75122300-0736-4087-b6d8-c0c5373a1a04	False	Ø	False
75bc6ebd-40cd-4e1d-a301-27ddd93b12e2	True	5 pairs	False
ce965c4d-7a2b-4db6-9847-601747fa7812	True	3 pairs	True
28867d12-27a6-4e6a-a5fb-8bb5440117ae	True	5 pairs	True
5a7a7e13-fbcf-46e4-9093-79799649d6c5	False	Ø	False
0143cb8b-bb81-4916-9750-ce956c9f9bd9	False	Ø	False
a4ccc1b3-cbb6-449c-b7a5-03af42c97433	True	5 pairs	False
b1dded76-cd60-4222-82cb-f6d464104298	True	3 pairs	False

# Final recommendations

- Since trying on at home has such a high purchase rate, Warby Parker should perhaps advertise this more obviously on other pages besides the homepage and offer an extended period of time for home try-ons
- Offer an incentive for users to try on 5 pairs instead of 3 pairs since that has a higher conversion rate (perhaps small % of sale, etc)
- Advertise the Most Popular Purchase at the top of Women's and Men's instead of Staff Pick

