codecademy

Warby Parker - What up?

Learn SQL from Scratch

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1. *Survey* Table

1 Survey table, columns included

The table ‘survey’ has the columns “**question**”, “**user_id**”, and “**response**”

```
select *
 from survey
 limit 10;
```

question	user_id	response
1. What are you looking for?	005e7f99-d48c-4fce-b605-10506c85aaf7	Women's Styles
2. What's your fit?	005e7f99-d48c-4fce-b605-10506c85aaf7	Medium
3. Which shapes do you like?	00a556ed-f13e-4c67-8704-27e3573684cd	Round
4. Which colors do you like?	00a556ed-f13e-4c67-8704-27e3573684cd	Two-Tone

2. Survey response numbers

2 Survey response numbers

The number of responses for Q1 was 500 and the number of responses for Q2 was 475 - 25 people dropped off between Q1 and Q2.

```
select question, count(question) as 'count'
 from survey
 group by question;
```

question	count
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. Survey funnel of responses

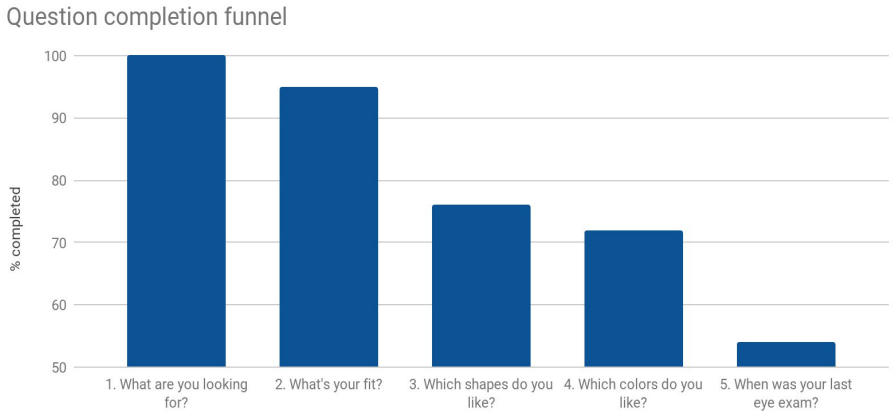
3.1 Survey funnel of responses

Question 5 had the lowest completion rate (54%). This may be do to the fact that this question is asking respondents to remember something that happened in the past.

```
select question,
  count(question) as 'count',
  count(question)*100/500 as '% completed'
 from survey
 group by question;
```

question	count	% completed
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
5. When was your last eye exam?	270	54

3.3 Survey funnel of responses



question	% completed
1. What are you looking for?	100
2. What's your fit?	95
3. Which shapes do you like?	76
4. Which colors do you like?	72
5. When was your last eye exam?	54

The biggest losses from the funnel occur between question 2 and 3 and questions 4 and 5.

4. Quiz, home try on, and purchase tables

4 Quiz, home try on, and purchase tables

user_id	style	fit	shape	color

user_id	number_of_pairs	address

user_id	product_id	style	model_name	color	price

- The column names in the ‘quiz’ table are “user_id”, “style”, “fit”, “shape”, and “color”.
- The column names in the ‘home_try_on’ table are “user_id”, “number_of_pairs”, and “address”
- The column names in the ‘purchase’ table are “user_id”, “product_id”, “style”, “model_name”, “color”, “price”

```
select *
 from quiz
 limit 5;

 select *
 from home_try_on
 limit 5;

 select *
 from purchase
 limit 5;
```

5. Full funnel analysis

5.1 Overall conversion funnel

count(user_id)	sum(is_home_try_on)	sum(is_purchase)	conversion
1000	750	495	49%

1000 people completed the quiz > 750 (75%) tried in home > 495 (49%) purchased

- Conversion for people who tried any number of glasses was 66%
- WP should be thrilled to have this kind of conversion rate!

```
With tbl AS(
SELECT DISTINCT quiz.user_id,
   home_try_on.user_id IS NOT NULL AS
'is_home_try_on',
   home_try_on.number_of_pairs,
   purchase.user_id IS NOT NULL AS 'is_purchase'
FROM quiz
       LEFT JOIN home_try_on
       ON home_try_on.user_id = quiz.user_id
       LEFT JOIN purchase
       ON quiz.user_id = purchase.user_id)
-- create working table ^
Select count(user_id),
       sum(is_home_try_on),
  sum(is_purchase),
  (495*100/1000) as conversion
from tbl;
```

5.2 Overall conversion funnel

number_of_pairs	sum(is_home_try_on)	sum(is_purchase)
	0	0
3 pairs	379	201
5 pairs	371	294

Roughly the same number of people were sent 3 or 5 pairs of glasses to try on

- Those who were sent 5 pairs of glasses were more likely to convert (79%) than those that were sent 3 pairs (53%)
- WP should consider the additional cost of sending 5 vs. 3 pairs against the improved conversion rate to determine their best course of action.

```
With tbl AS(
SELECT DISTINCT quiz.user_id,
   home_try_on.user_id IS NOT NULL AS
'is_home_try_on',
   home_try_on.number_of_pairs,
   purchase.user_id IS NOT NULL AS 'is_purchase'
FROM quiz
       LEFT JOIN home_try_on
       ON home_try_on.user_id = quiz.user_id
       LEFT JOIN purchase
       ON quiz.user_id = purchase.user_id)
-- create working table ^
Select number_of_pairs,
       sum(is_home_try_on),
  sum(is_purchase)
from tbl
group by number_of_pairs;
-- calculate funnel by number of pairs ^
```