Learn SQL from Scratch

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Usage Funnels with Warby Parker

Task 1:

- The table have columns called "question", "user_id" and "response".
- With this query we see all columns from the survey table, with a limit of 10 rows.

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

Query Results		
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
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

Task 2:

- The first question has 500 responses
- Question two has 475 responses
- Question three has 380 responses
- Question four has 361 responses
- Question five has 270 responses

```
select question,
       count(distinct user_id)
 from survey
 group by question;
```

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

Task 3:

- Question 5 have the lowest completion rate.
  We started with 500 distinct users in question 1, but only 270 users (54%) answered the last question of the quiz.
- Only 75% of the users who answered question 4 answered question 5
- The survey also lost a lot of users at question three. Only 80% of the users who answered question 2 answered question 3.

- It is natural to lose some users along the way in a survey like this, it may also be because the users don't know, or don't feel, like question about shape and their last eye exam is relevant for them.

question	count(distinct user_id)	Completion rate	
1. What are you looking for?	500	100%	500
2. What's your fit?	475	95%	-25
3. Which shapes do you like?	380	80%	-95
4. Which colors do you like?	361	95%	-19
5. When was your last eye exam?	270	75%	-91
			-230

Task 4:

- The quiz table contains these columns:
  - User_id
  - Style
  - Fit
  - Shape
  - Color
- The home_try_on table contains three columns;
  - User_id
  - Number_of_pairs
  - Address
- The purchase table contains these columns:
  - 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;
```

Task 5:

- In this query we have selected distinct user_id's from the quiz table and left joined user_id's from the home_try_on table and the purchase table.
- This makes a new table with combined information who shows which users who tried pairs at home (column 2 - 1 means "True" and 0 means "False"), how many pairs they tried at home and how this converted to sales (Column 4: 1 means "True" or "Sale", 2 means "False" or "Not sale")

```
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_purchace'
from quiz
left join home_try_on
 on quiz.user_id = home_try_on.user_id
left join purchase
 on purchase.user_id = quiz.user_id
limit 10;
```

Query Results

user_id	is_home_try_on	number_of_pairs	is_purchace
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

Task 6:

- It can be valuable for Warby Parker to compare the style, size and shape from the quiz table that has been converted to sales. For example, it may be that "Men's style" did not convert as many sales as "Woman's style", or vice versa.
- It may also be interesting to compare number_of_pairs from the home_try_on table to sales, and perhaps which addresses / districts the customers who shop the most lives in.
- We find columns such as "model_name" and "color" in the purchase table. This can be used to investigate which products they actually sell the most of.