codecademy/PRO

Codecademy Intensive: Learn SQL from Scratch

Terence Bennett
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Purpose: The following slides show my answers for Codecademy's 'Funnel with Warby Parker' problem set.

1
```
SELECT *
FROM survey
LIMIT 10;
```

Here is a breakdown of all the table Survey.

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

2

```
SELECT question, COUNT(user_id)
FROM survey
WHERE response IS NOT NULL
GROUP BY question;
```

Here is a breakdown of the quiz funnel and the number of users who answered each question.

Query Results	
question	**COUNT(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	

3
This table was created in excel, using the number from the quiz funnel. Ive added brief comments at the bottom.

1. What are you looking for?	500	100.00%
2. What's your fit?	475	95.00%
3. Which shapes do you like?	380	80.00%
4. Which colors do you like?	361	95.00%
5. When was your last eye exam?	270	74.79%

Q5 has the largest drop off in responses.

Likely because respondants do not know the answer to the questions.

4

Below are screenshots of SQL code and tables.

project.sqlite

```
1  SELECT *
2  FROM purchase
3  LIMIT 5;
4
```

Query Results

user_id	product_id	style	model_name	color
430c-9d76-df49d4197dcf	8	Women's Styles	Lucy	Jet Black
818-9c63-3422211baa97	7	Women's Styles	Lucy	Elderflower Crystal
4b9d-8b7b-f4426e71b8ca	4	Men's Styles	Dawes	Jet Black
4b1c-b593-87edab3c54cb	10	Women's Styles	Eugene Narrow	Rosewood Tortoise
4d3f-a036-2f3e2ab1ce06	8	Women's Styles	Lucy	Jet Black

project.sqlite

```
1  SELECT *
2  FROM home_try_on
3  LIMIT 5;
4
```

Query Results

user_id	number_of_pairs	address
d8addd87-3217-4429-9a01-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-accc-49a7bb46c586	3 pairs	347 Madison Square N
3bc8f97f-2336-4dab-bd86-e391609dab97	5 pairs	182 Cornelia St

project.sqlite

```
1  SELECT *
2  FROM quiz
3  LIMIT 5;
4
```

Query Results

user_id	style	fit	shape	co
4e8118dc-bb3d-49bf-85fc-cca8d83232ac	Women's Styles	Medium	Rectangular	Tor
291f1cca-e507-48be-b063-002b14906468	Women's Styles	Narrow	Round	Bl
75122300-0736-4087-b6d8-c0c5373a1a04	Women's Styles	Wide	Rectangular	Two
75bc6ebd-40cd-4e1d-a301-27ddd93b12e2	Women's Styles	Narrow	Square	Two
ce965c4d-7a2b-4db6-9847-601747fa7812	Women's Styles	Wide	Rectangular	Bl

5

Here is a LEFT JOIN of three tables which shows the overall conversation between people who tried at home, how many pairs they tried at home, and if they purchased.

project.sqlite

```sql
SELECT DISTINCT
  q.user_id,
  h.user_id IS NOT NULL AS 'is_home_try_on',
  number_of_pairs,
  p.user_id IS NOT NULL AS 'is_purchase'
FROM quiz AS 'q'
LEFT JOIN home_try_on AS 'h'
ON q.user_id = h.user_id
LEFT JOIN purchase AS "p"
ON p.user_id = h.user_id
LIMIT 10;
```

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	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

6

Using the LEFT JOIN from problem 5, this query breaks down the numbers of conversions between browsing, try at home, and purchase.

project.sqlite

```
1  WITH funnel AS (SELECT DISTINCT
2    q.user_id,
3    h.user_id IS NOT NULL AS 'is_home_try_on',
4    number_of_pairs,
5    p.user_id IS NOT NULL AS 'is_purchase'
6  FROM quiz AS 'q'
7  LEFT JOIN home_try_on AS 'h'
8  ON q.user_id = h.user_id
9  LEFT JOIN purchase AS "p"
10 ON p.user_id = h.user_id)
11
12 SELECT COUNT(user_id) AS 'num_browse',
13 SUM(is_home_try_on) AS 'num_try_on',
14 SUM(is_purchase) AS 'num_purchase',
15 1.0 * SUM(is_home_try_on) / COUNT(user_id) AS
   'Funnel 1',
16 1.0 * SUM(is_purchase) / SUM(is_home_try_on) AS
   'Funnel 2'
17 FROM funnel;
```

Query Results

num_browse	num_try_on	num_purchase	Funnel 1	Funnel 2
1000	750	495	0.75	0.66

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	1000 rows