



Usage Funnel Project

Learn SQL from Scratch

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2. What is the Quiz Funnel and Home_try_on Funnel
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1. Table Views

1.1 Survey Table View

1.1 Survey Table

This view shows the query results for the table survey. The results have been limited to 4 results for easier visibility. The columns consists of question, user_id, and Response

```
--  
select *  
from survey  
limit 4;
```

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

1.2 Quiz Table View

1.2 Quiz Table

This view shows the query results for the table quiz. The results have been limited to 4 results for easier visibility. The columns consists of user_id, style, fit, shape, and color.

```
--
select *
from quiz
Limit 4;
```

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

1.3 Home_try_on Table View

1.3 Home_try_on Table

This view shows the query results for the table home_try_on. The results have been limited to 4 results for easier visibility. The columns consists of user_id, number_of_pairs, and address.

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

```
--  
select *  
from home_try_on  
Limit 4;
```

1.4 Purchase Table View

1.4 PurchaseTable

This view shows the query results for the table purchase. The results have been limited to 4 results for easier visibility. The columns consists of user_id, product_id, style, model_name, color, and Price.

```
--
select *
from purchase
Limit 4;
```

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

2. Funnel Usage

2. Funnel Usage

Funnels are a great tool to use when analyzing data. Funnels are a way to represent the order of the events that a user performs in your system. For this example, 2 funnels were used:

Quiz Funnel

Survey Table

- 1.User_id
- 2.Question
- 3.Response

Home Try On Funnel

Quiz Table

- 1.User_id
- 2.Style
3. Fit
4. Shape
5. Color

home_try_on Table

- 1.User_id
- 2.Number_of_pairs
- 3.Address

Purchase Table

- 1.User_id
- 2.Product_id
- 3.Style
- 4.Model_name
- 5.Color
- 6.Price

3. Query Analysis - A/B Testing with Home Try-On

Funnel

3. Query Analysis

Using the table queries, a few different calculations can be seen on the next slide.

The results show:

1. Conversion Rate from Quiz Completion
2. Conversion Rate from Home_try_on to Purchase
3. Conversion Rate from Beginning of Funnel to Purchase.

```
--  
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  
LIMIT 10;
```

Query Results						
User_id	is_home-try_on	home_try_on	is_purchase	Converion quiz-home_try_on	Conversion home_try_on to Purchase	Conversion from try on to purchase (1 is full funnel)
4e8118dc-bb3d-49bf-85fc-cca8d83232ac	1	3 pairs	0	1	0	0
291f1cca-e507-48be-b063-002b14906468	1	3 pairs	1	1	1	1
75122300-0736-4087-b6d8-c0c5373a1a04	0	NULL	0	0	0	0
75bc6ebd-40cd-4e1d-a301-27ddd93b12e2	1	5 pairs	0	1	0	0
ce965c4d-7a2b-4db6-9847-601747fa7812	1	3 pairs	1	1	1	1
28867d12-27a6-4e6a-a5fb-8bb5440117ae	1	5 pairs	1	1	1	1
5a7a7e13-fbcf-46e4-9093-79799649d6c5	0	NULL	0	0	0	0
0143cb8b-bb81-4916-9750-ce956c9f9bd9	0	NULL	0	0	0	0
a4ccc1b3-cbb6-449c-b7a5-03af42c97433	1	5 pairs	0	1	1	0
b1dded76-cd60-4222-82cb-f6d464104298	1	3 pairs	0	1	0	0
			Totals:	70%	30%	30.00%
Most common styles in quiz:	Women's Styles					
Most common model type from purchase:	Olive					

4. Questions/Answers

1. Question:

The users' responses are stored in a table called Survey

Select all columns from the first 10 rows. What columns does the table have?

Answer:

The columns on the Survey Table include Questions, user_id, and Response

2. Question:

What is the number of responses for each question?

Answer:

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. Question:

Which question(s) of the quiz have a lower completion rates?

Answer:

No columns contained any null values.

The values I analyzed were:

Style(I'm not sure. Let's skip it.)

Fit (I'm not sure. Let's skip it)

Style (No Preference)

I copied the query into excel and found the following information

Style : $99/1000 = 0.099\%$

Fit : $89/1000 = 0.089\%$

Shape : $97/1000 = 0.097\%$

Fit had the lowest completion rate. I believe that it is the reason because the customer does not seem to be given any examples of what the terms (Narrow, Wide, and Medium) mean.

4. Question:

Let's find out whether or not users who get more pairs to try on at home will be more likely to make a purchase.

The data will be distributed across three tables:

- quiz
- home_try_on
- purchase

Examine the first five rows of each table

What are the column names?

Answer:

Table Quiz- user_id, style, fit, shape, color

Table Home_try_on- user_id, number_of_pairs, address

Table Purchase- user_id, product_id, style, model_name, color, price

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What are the column names?

Answer:

Table Quiz- user_id, style, fit, shape, color

Table Home_try_on- user_id, number_of_pairs, address

Table Purchase- user_id, product_id, style, model_name, color, price

5. SQL Code

```
--
select *
from survey
limit 4;
--
select question,
count(distinct user_id)
from survey
group by question;
--
select *
from quiz
limit 5;

select *
from home_try_on
limit 5;

select *
from purchase
limit 5;
--
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
LIMIT 10;
--
select max(style)
from quiz;
--
select max(model_name)
from purchase;
```