



Learn SQL from Scratch

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Section 1: Get familiar with CoolTShirts

First point How many campaigns and sources does CoolTShirts use and how are they related? What's the differences?

Campaigns- 8

Sources- 6

The source and campaign are two separate pieces of the puzzle but work in unison with one another to produce a positive outcome for marketing campaigns. The utm source identifies which website brought the user to their site. The utm campaign identifies the specific ad campaign or email blast that was clicked.

```
SELECT COUNT (DISTINCT  
utm_campaign)
```

```
FROM page_visits;
```

```
SELECT COUNT (DISTINCT utm_source)
```

```
FROM page_visits;
```

```
SELECT DISTINCT utm_campaign,  
utm_source
```

```
FROM page_visits;
```

What pages are on their website?

1. Landing page
2. Shopping cart
3. Checkout
4. Purchase

```
Select DISTINCT page_name  
FROM page_visits;
```

Section 2: What is the user journey?

How many first touches is each campaign responsible for?

ft_attr.utm_source	ft_attr.utm_campaign	<u>COUNT(*)</u>
medium	interview-with-cool-tshirts-founder	622
nytimes	getting-to-know-cool-tshirts	612
buzzfeed	ten-crazy-cool-tshirts-facts	576
google	cool-tshirts-search	169

```
WITH first_touch AS (  
    SELECT user_id,  
           MIN(timestamp) as first_touch_at  
    FROM page_visits  
GROUP BY user_id),  
ft_attr AS (  
    SELECT ft.user_id,  
           ft.first_touch_at,  
           pv.utm_source,  
           pv.utm_campaign  
    FROM first_touch ft  
    JOIN page_visits pv  
      ON ft.user_id = pv.user_id  
     AND ft.first_touch_at = pv.timestamp  
)  
SELECT ft_attr.utm_source,  
       ft_attr.utm_campaign,  
       COUNT(*)  
FROM ft_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```

How many last touches is each campaign responsible for?

lt_attr.utm_source	lt_attr.utm_campaign	<u>COUNT(*)</u>
email	weekly-newsletter	447
facebook	retargeting-ad	443
email	retargeting-campaign	245
nytimes	getting-to-know-cool-tshirts	232
buzzfeed	ten-crazy-cool-tshirts-facts	190
medium	interview-with-cool-tshirts-founder	184
google	paid-search	178
google	cool-tshirts-search	60

```
WITH last_touch AS (  
  SELECT user_id,  
         MAX(timestamp) as last_touch_at  
  FROM page_visits  
  GROUP BY user_id),  
lt_attr AS (  
  SELECT lt.user_id,  
         lt.last_touch_at,  
         pv.utm_source,  
         pv.utm_campaign,  
         pv.page_name  
  FROM last_touch lt  
  JOIN page_visits pv  
    ON lt.user_id = pv.user_id  
    AND lt.last_touch_at = pv.timestamp  
)  
SELECT lt_attr.utm_source,  
       lt_attr.utm_campaign,  
       COUNT(*)  
FROM lt_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```


How many visitors make a purchase?

<u>COUNT(*)</u>
361

```
SELECT COUNT(*)  
FROM page_visits  
WHERE page_name = '4 - purchase';
```

How many last touches on the purchase page is each campaign responsible for?

user_id	last_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
99933	2018-01-26 06:18:39	email	weekly-newsletter	115
99897	2018-01-06 09:41:19	facebook	retargeting-ad	113
99285	2018-01-24 09:00:58	email	retargeting-campaign	54
94567	2018-01-19 16:37:58	google	paid-search	52
92172	2018-01-16 15:15:29	nytimes	getting-to-know-cool-tshirts	9
98651	2018-01-15 04:17:36	buzzfeed	ten-crazy-cool-tshirts-facts	9
83547	2018-01-10 18:20:21	medium	interview-with-cool-tshirts-founder	7
95650	2018-01-18 00:25:00	google	cool-tshirts-search	2

```
WITH last_touch AS (  
  SELECT user_id,  
         MAX(timestamp) AS last_touch_at  
  FROM page_visits  
  WHERE page_name = '4 - purchase'  
  GROUP BY user_id)  
SELECT lt.user_id,  
       lt.last_touch_at,  
       pv.utm_source,  
       pv.utm_campaign,  
       COUNT(utm_campaign)  
FROM last_touch lt  
JOIN page_visits pv  
      ON lt.user_id = pv.user_id  
      AND lt.last_touch_at = pv.timestamp  
GROUP BY utm_campaign  
ORDER BY 5 DESC;
```

What is the typical user journey?

The typical user journey does not lead to a purchase on the first initial visit to the website. Targeted ad campaigns through email blasts and facebook are crucial in finalizing sales. Most customers check out the website to see the products but tend to procrastinate on purchasing the first time around. Once the site is shown to them once again via email, facebook, or banner advertisements; then the sale is usually completed.

Section 3: Optimize the campaign budget

CoolTShirts can reinvest in 5 campaigns. Which should they pick and why?

Top 5 campaigns:

First Touches

1. Interview with cool t-shirts founder = 622
2. Getting to know cool t-shirts= 612
3. Ten crazy cool t-shirt facts= 576

Last Touches

4. Weekly newsletter= 447
5. Retargeting ad= 443

Why?

The first 3 campaigns had the highest amount of touches overall. These campaigns did not necessarily lead to sales but the exposure of the website is greatest due to the 3 articles. The last touches count numbers are slightly lower than the first, however; the weekly newsletter and retargeting ads produced the highest amount of sales.

It is important to drive valuable traffic to your site but it is equally, if not more important, to convert visitors into customers. The next step is to produce repeat customers through targeted advertisements

SQL is a standard language for accessing and manipulating databases.

- W3

SQL from Scratch



Everyone should learn SQL