



Attribution Queries

Learn SQL from Scratch

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**1. Get familiar with
CoolTShirts!**

1.1 How many campaigns and sources does CoolTshirts use?

- There are **8** distinct campaigns. The *utm_campaigns* column identifies the specific ad or email blasts used in marketing the site.
- There are **6** distinct sources. The *utm_source* column identifies which touchpoint sent the traffic to the site such as email or facebook.

```
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;
```

1.2 Which source is used for each campaign?

Campaign	Source
getting-to-know-cool-tshirts	nytimes
weekly-newsletter	email
ten-crazy-cool-tshirts-facts	buzzfeed
retargeting-campaign	email
retargeting-ad	facebook
interview-with-cool-tshirts-founder	medium
paid-search	google
cool-tshirts-search	google

2. What pages are on the CoolTShirts Website

- The *page_name* column gives us the title of the section of the page that was visited.
- You can see on the right that there are **4** distinct title sections.

```
SELECT DISTINCT page_name  
FROM page_visits;
```

page_name
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

2. What is the user journey?

3 How many first touches is each campaign responsible for?

utm_campaign	COUNT(utm_campaign)
cool-tshirts-search	169
ten-crazy-cool-tshirts-facts	576
getting-to-know-cool-tshirts	612
interview-with-cool-tshirts-founder	622

```
WITH first_touch AS (  
  SELECT user_id,  
         MIN(timestamp) as first_touch_at  
  FROM page_visits  
  GROUP BY user_id)  
SELECT ft.user_id,  
       ft.first_touch_at,  
       pv.utm_source,  
       pv.utm_campaign,  
       COUNT(utm_campaign)  
FROM first_touch ft  
JOIN page_visits pv  
  ON ft.user_id = pv.user_id  
  AND ft.first_touch_at = pv.timestamp  
GROUP BY utm_campaign  
ORDER BY 5;
```


4. How many last touches is each campaign responsible for?

utm_campaign	COUNT(utm_campaign)
cool-tshirts-search	60
paid-search	178
interview-with-cool-tshirts-founder	184
ten-crazy-cool-tshirts-facts	190
getting-to-know-cool-tshirts	232
retargeting-campaign	245
retargeting-ad	443
weekly-newsletter	447

```
WITH last_touch AS (  
  SELECT user_id,  
         MAX(timestamp) as last_touch_at  
  FROM page_visits  
  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;
```

5. How many visitors make a purchase?

- The *page_name* column gives us the title of the section of the page that was visited. We want to know how many landed on '4-purchase.'
- **361** landed on '4-purchase.'

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

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

utm_campaign	COUNT(utm_campaign)
cool-tshirts-search	2
interview-with-cool-tshirts-founder	7
getting-to-know-cool-tshirts	9
ten-crazy-cool-tshirts-facts	9
paid-search	52
retargeting-campaign	54
retargeting-ad	113
weekly-newsletter	115

```
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;
```

3. Optimize the campaign budget

CoolTShirts should re-invest these 5 campaigns.

Based on the results from querying the table called *page_visits*. We can gather that the following 5 campaign should be re-invested in based on how many of the last touches resulted in a purchase. Thus generating revenue for CoolTShirts.com and returning investment.

Campaign	Last Touch	Last Touch with Purchase
weekly-newsletter	447	115
retargeting-ad	443	113
retargeting-campaign	245	54
paid-search	178	52
ten-crazy-cool-tshirts-facts	190	9