



# Attribution Queries Capstone

Learn SQL from Scratch

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# **1. Company Familiarization**

## 1.1 Campaigns

Here's the list of the 8 different of campaigns used in the AB testing.

Campaign Name
getting-to-know-cool-tshirts
weekly-newsletter
ten-crazy-cool-tshirts-facts
retargetting-campaign
retargetting-ad
interview-with-cool-tshirts-founder
paid-search
cool-tshirts-search

## 1.1 Sources

Here are the 6 different sources that utilized each of the campaigns that's linking the customers to the website.

Source
NY Times
Email
BuzzFeed
Facebook
Medium
Google

## 1.3 Relationship between the two

Here is the correlating campaigns to their sources. It's interesting to note that only two of the sources have more than one campaign (Google and email.)

Campaign Name	Source
getting-to-know-cool-tshirts	NY Times
weekly-newsletter	Email
ten-crazy-cool-tshirts-facts	BuzzFeed
retargetting-campaign	Email
retargetting-ad	Facebook
interview-with-cool-tshirts-founder	Medium
paid-search	Google
cool-tshirts-search	Google

## **2. What does the user see?**

## 2.1 Pages

This is the website, and the pages the user sees.

Pages
1 Landing Page
2 Shopping Cart
3 Checkout
4 Purchase



## 2.2 First Touches

These are the ads that bring the most traffic to the site. The numbers correlate to the amount of unique users brought at least one of the four pages.

Source	Campaign	# of Touches
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)  
SELECT ft.user_id,  
       ft.first_touch_at,  
       pv.utm_source,  
       pv.utm_campaign,  
       count(utm_campaign) as 'Question 3'  
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 desc;
```

## 2.3 Last Touches

These are the last touches, the amount of unique users who come back to the website via a different campaign.

Source	Campaign	# of Touches
email	weekly-newsletter	447
facebook	retargetting-ad	443
email	retargetting-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)  
SELECT lt.user_id,  
       lt.last_touch_at,  
       pv.utm_source,  
       pv.utm_campaign,  
       count(utm_campaign) as 'Question 4'  
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;
```

# **3. Suggestions**

## 3.1 Purchases

There was a total of **361 purchases** recorded by the website.

```
select count (distinct  
user_id) as 'Question 5'  
from page_visits  
where page_name like '4 -  
purchase';
```

## 3.2 Purchases

Here's the list of the last touches that landed on the purchase page, obviously meaning that they led to sales.

Source	Campaign	# of Touches
email	weekly-newsletter	115
facebook	retargeting-ad	113
email	retargeting-campaign	54
google	paid-search	52
nytimes	getting-to-know-cool-tshirts	9
buzzfeed	ten-crazy-cool-tshirts-facts	9
medium	interview-with-cool-tshirts-founder	7
google	cool-tshirts-search	2

```
WITH last_touch AS (  
    SELECT user_id,  
           MAX(timestamp) as  
           last_touch_at  
    FROM page_visits  
  
    where page_name  
    like '4 - purchase'  
    GROUP BY user_id)  
SELECT lt.user_id,  
       lt.last_touch_at,  
       pv.utm_source,  
  
       pv.utm_campaign,  
       count(utm_campaign) as  
       'Question 6'  
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;
```

## 3.3 Optimization

Below are the top 5 conversations of the campaigns, mostly because they ended sales. If there were options to reinvest, it should be in the following to maximize profit. If for any reason, the conversation of the 5 are capped, then the money should be re-invested top of the first touch campaigns, due to the reach of the campaigns.

Source	Campaign	# of Touches
email	weekly-newsletter	115
facebook	retargetting-ad	113
email	retargetting-campaign	54
google	paid-search	52
nytimes	getting-to-know-cool-tshirts	9