



Attribution Queries

Learn SQL from Scratch

Cornelius Owens

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1. Get familiar with CoolTShirts

1.1

How many campaigns and sources does CoolTShirts use? Which source is used for each campaign?

There are 8 distinct campaigns and 6 sources.

The retargetting campaign and weekly newsletter are done through email.

Paid searches and Cool T shirts are done through Google.

Ten crazy cool t shirt facts is through Buzzfeed.

Getting to know cool t shirts is through NY Times.

Interview with cool t shirts founder is through medium.

The retargeting Ad is via facebook.

COUNT(DISTINCT
utm_campaign)

8

COUNT(DISTINCT
utm_source)

6

utm_campaign	utm_source
getting-to-know-cool-tshirts	nytimes
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

```
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

What pages are on the CoolTShirts website?

The Landing page
Shopping Cart
Checkout
Purchase

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

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

2. What is the user journey?

2.1

How many first touches is each campaign responsible for?

Interview with cool t shirts founder: 622

Getting to know cool t shirts: 612

Ten crazy cool t shirt facts: 576

Cool T Shirts search : 169

FT source	FT Campaign	Counts
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 1),  
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 AS [FT source],  
       ft_attr.utm_campaign AS [FT Campaign],  
       COUNT(*) AS Counts  
FROM ft_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```

2.2

How many last touches is each campaign responsible for?

Weekly Newsletter: 447

Ten crazy cool t shirts facts: 190

Retargeting Ad: 443

Interview with cool tshirts founder: 184

Retargeting Campaign: 245

Paid Search: 178

Getting to know cool tshirts:232

Cool tshirts search: 60

LT Source	LT Campaign	Counts
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 1),  
lt_attr AS (  
  SELECT lt.user_id,  
         lt.last_touch_at,  
         pv.utm_source,  
         pv.utm_campaign  
  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 AS [LT Source],  
       lt_attr.utm_campaign AS [LT Campaign],  
       COUNT(*) AS Counts  
FROM lt_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```


2.3

How many visitors make a purchase? 361 users made a purchase.

COUNT(DISTINCT user_id)

361

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

2..4

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

Weekly Newsletter: 115

Ten crazy cool t-shirts facts: 9

Retargeting Ad: 113

Interview with cool t-shirts founder: 7

Retargeting Campaign: 54

Cool t-shirts search 2

Paid Search: 52

Getting to know cool t-shirts 9

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

```
WITH last_touch AS (  
    SELECT user_id,  
           MAX(timestamp) AS last_touch_at  
    FROM page_visits  
    GROUP BY user_id)  
SELECT COUNT(DISTINCT user_id) as Users,utm_campaign  
as Campaign  
FROM page_visits  
WHERE page_name = '4 - purchase'  
GROUP BY utm_campaign  
ORDER BY 1 DESC;
```

2.5

What is the typical user journey?

Depending on the source the user navigated to get to CoolTshirts, they will eventually arrive on the landing page.

From the landing page, the user will search for items to add to their shopping cart.

Once the user has selected the items they want, they proceed to the check out page.

Once the user has successfully made a purchase, they will be on the last page. The purchase page.

3. Optimize the campaign budget

3.1

CoolTShirts can re-invest in 5 campaigns. Which should they pick and why?

Based on the last touches and last touches on the purchase page, the following campaigns should be re-invested. The results on the left show how many last touches for all pages, by campaign. The the results on the right show how many last touches were on the purchase page, per campaign.

Weekly-newsletter

Retargeting-ad

Retargeting-campaign

Paid-search

Ten crazy cool t-shirts facts

I am choosing ten-crazy-cool-tshirts-facts(4.7%) over getting-to-know-cool-tshirts (3.8%) because a slightly higher percentage of users made it to the purchase page.

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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

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