



Attribution Queries

Learn SQL from Scratch

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**Get Familiar with
CoolTShirts**

1.1 Get Familiar with the Company

How many campaigns and sources does CoolTShirts use and how are they related? Be sure to explain the difference between `utm_campaign` and `utm_source`. What pages are on their website?

Utm_campaign identifies the specific ad or email blast while **utm_source** identifies which site sent the traffic (i.e., google, newsletter, or facebook_ad).

```
COUNT(DISTINCT utm_campaign)
```

8

```
COUNT(DISTINCT utm_source)
```

6

```
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;
```

utm_campaign	utm_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

1.2 Get Familiar with the Company

What pages are on the CoolTShirts website?

Landing Page
Shopping Cart
Checkout
Purchase

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

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

What is the User Journey?

2.1 What is the User Journey?

How many first touches is each campaign responsible for?

According to our results, there were 622 First Touches on 'Medium' via the interview-with-cool-tshirts-founder campaign, 612 First Touches on 'NY Times' via getting-to-know-cool-tshirts, 576 on 'Buzzfeed' via ten-crazy-cool-tshirts-facts campaign and 169 on 'Google' via ten-crazy-cool-tshirts-facts.

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 What is the User Journey?

How many last touches is each campaign responsible for?

According to my results, there were more campaigns and counts on Last Touches because users were brought to the website via retargeting campaigns, that weren't included in the First Touch results. Please see the campaigns and counts below:

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 What is the User Journey?

How many visitors make a purchase?

According to my results, 361 Distinct Users made a purchase.

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

COUNT(DISTINCT user_id)
361

2.4 What is the User Journey?

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

According to my results, the number of Users shown totals 361 Distinct Users who made a purchase. Each campaign is included and shown in the list below:

Users	Campaign
115	weekly-newsletter
113	retargetting-ad
54	retargetting-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 User Journey?

Depending on what source the user was navigating through to get to CoolTShirts, the typical user would be brought to the website's landing page, add desired items to their shopping cart, check out and then pay for their items.

Optimize the Campaign Budget

3.1 Optimize the Campaign Budget

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

Based on the last touch on the purchase page, the campaigns that should be re-invested are as follows: 1. weekly-newsletter, 2. retargeting-ad, 3. retargeting-campaign, 4. paid-search and 5. ten-crazy-cool-tshirts. According to my results, getting-to-know-cool-tshirts also has nine last touches on the purchase page, however the percentage is slightly higher based on the counts shown.

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

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google	cool-tshirts-search	60