

Code Academy Project

Option 3: First- and Last-Touch Attribution with CoolTShirts.com

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

8 Distinct Campaign (ie utm_campaign = types of marketing efforts)

6 Sources (ie. utm_source = unique channel to reach audience)

```
SELECT COUNT(DISTINCT utm_campaign)
FROM page_visits;

SELECT COUNT(DISTINCT utm_source)
FROM page_visits;

SELECT COUNT(DISTINCT utm_campaign)
FROM page_visits;
```

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

What pages are on the CoolTShirts website?

4 total website page pages, where anyone who lands on the purchase page (destination url) **must** have placed an order.

```
SELECT DISTINCT (page_name)
```

```
FROM page_visits;
```

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

How many first touches is each campaign responsible for?

```
SELECT COUNT(DISTINCT utm_campaign)

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 DESC;
```

While there are 8 campaigns, only 4 campaigns have first touch attribution. Most most common first touch point come from “interview-with-cool-tshirts-founder.”

user_id	first_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
99990	2018-01-13 23:30:09	medium	interview-with-cool-tshirts-fo under	622
99933	2018-01-25 00:04:39	nytimes	getting-to-know-cool-tshirts	612
99765	2018-01-04 05:59:46	buzzfeed	ten-crazy-cool-tshirts-facts	576
99684	2018-01-13 13:20:49	google	cool-tshirts-search	169

How many last touches is each campaign responsible for?

```
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 DESC;
```

The top 3 last touch campaigns benefit from first touch attribution across various sources, particularly retargeting efforts.

user_id	last_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
99933	2018-01-26 06:18:39	email	weekly-newsletter	447
99928	2018-01-24 05:26:09	facebook	retargeting-ad	443
99990	2018-01-16 11:35:09	email	retargeting-campaign	245
99589	2018-01-15 04:55:43	nytimes	getting-to-know-cool-tshirts	232
99765	2018-01-04 05:59:47	buzzfeed	ten-crazy-cool-tshirts-facts	190
99838	2018-01-02 07:40:34	medium	interview-with-cool-tshirts-founder	184
98840	2018-01-10 04:58:48	google	paid-search	178
99344	2018-01-18 21:36:32	google	cool-tshirts-search	60

How many visitors make a purchase?

361 visitors purchased

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

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	retargetting-ad	113
99285	2018-01-24 09:00:58	email	retargetting-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

Weekly newsletters and retargetting efforts convert most frequently when using last touch attribution models.

```
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;
```

Which 5 campaigns should CoolTshirts invest in?

- CoolTshirt earned purchases from 361 people
- While most ultimately converted from 3 campaigns (2 retargeting and 1 weekly newsletter) and 2 main sources (email & facebook), the user journey began through a number of key first touch points around brand awareness:
 - Interview with the founder (interview-with-cool-tshirts-founder)
 - Getting to Know the company (getting-to-know-cool-tshirts)
 - 10 Tshirt facts (interview-with-cool-tshirts-founder)
- Data suggests that CoolTshirts must educate the market and fill the top of funnel with right audience, while re-engaging customer throughout purchase cycle
- Suggest: Reallocate budget to top 3 first touch campaigns and top 2 last touch.
 - interview-with-cool-tshirts-founder
 - getting-to-know-cool-tshirts
 - ten-crazy-cool-tshirts-facts
 - weekly-newsletter
 - retargeting-ad