



Option 3: First-Last Touch

Learn SQL from Scratch

Dustin Ballard

7/16/18

Table of Contents

1. Get familiar with CoolTShirts
2. What is the user journey?
3. Optimize the campaign budget

1. Get Familiar with CoolTShirts

1.1 Get familiar with CoolTShirts: Q&A

a) How many campaigns and sources does CoolTShirts use and how are they related?

-Answer(s): The # of Campaigns = 8
The # of Sources = 6

-Relation: At the end of the day, the company's goal is to simply get their name/product in front of customers. With that said, *the campaigns are different methods of marketing promotion and it makes the most sense to align these different promotional methods with the most appropriate source.* (i.e. NYTimes is notorious for informing the world with the next big 'it' in society. Whether it's a specific person, idea, product or company, that brings awareness to their purpose, their impact, values, background or goals etc.. Companies or individuals who make it onto NYTimes will indefinitely have the most exposure to society, because of its reputation. The significance of this is that society will remember it. Nevertheless, this will lead to future searches via Google, etc.)

The relationship between campaign and source is very important to understand, because they both compliment one another. People want certainty in their strategies of promotion, in regards to their strategy being logical, practical and most effective in how consumers naturally navigate and perceive in real time.

of Campaigns

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

of Sources

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

Campaign/Source Relation

```
SELECT DISTINCT utm_source, utm_campaign
FROM page_visits;
```

utm_source	Utm_campaign
Nytimes	Getting-to-know-cool-tshirts
Email	Weekly-newsletter
Buzzfeed	Ten-crazy-cool-tshirts-facts
Email	Retargeting-
Facebook	Retargeting-ad
Medium	Interview-with-cool-tshits-founder
Google	Paid-search
Google	Cool-tshirts-search

1.2 Get familiar with CoolTShirts: Q&A

b) Be sure to explain the difference between utm_campaign and utm_source.

- Utm_source identifies which touchpoint sent the traffic (i.e. Google, email, or Facebook)
- Utm_campaign identifies the specific ad or email blast (i.e. retargeting-ad or weekly-newsletter)

c) What pages are on their website?

-Answer: The pages on CoolTShirts site are 1) landing page, 2) shopping cart, 3) checkout and 4) purchase.

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

```
# of pages
SELECT DISTINCT page_name
FROM page_visits;
```

2. What is the User Journey?

2.1 What is the User Journey? Q&A

a) How many first touches is each campaign responsible for?

Answer: The 'Interview with cool tshirts founder' campaign is leads the pack with 622 first touches. The 'Getting to know cool tshirts' campaign is a close second, holding 612 first touches. The 'Ten crazy cool tshirts facts' campaign holds third with 576 first touches. Lastly, the 'Cool tshirts search' campaign is the caboose, holding 169 first touches.

ft_attr.utm_source	ft_attr.utm_campaign	COUNT(*)
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),  
ft_attr AS (  
  SELECT ft.user_id,  
         ft.first_touch_at,  
         pv.utm_source,  
         pv.utm_campaign  
  FROM first_touch AS 'ft'  
  JOIN page_visits AS 'pv'  
  ON ft.user_id = pv.user_id  
  AND ft.first_touch_at = pv.timestamp)  
SELECT ft_attr.utm_source,  
       ft_attr.utm_campaign,  
       COUNT (*)  
FROM ft_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```

2.2 What is the User Journey? Q&A

b) How many last touches is each campaign responsible for?

Answer: The campaign with most last touches is 'Weekly newsletter' containing 447. Second place with 443 last touches is 'Retargeting ad'. Third place with 245 last touches is 'Retargeting campaign'. Fourth place with 232 last touches is 'Getting to know cool tshirts'. Fifth place with 190 last touches is 'Ten crazy cool tshirts facts'. Sixth place with 184 is 'Interview with cool tshirts founder'. Seventh with 178 is 'Paid search'. Lastly, 'Cool tshirts search' campaign holds 60 last touches.

lt_attr.utm_source	lt_attr.utm_campaign	COUNT(*)
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 first_touch AS (  
  SELECT user_id,  
         MAX(timestamp) AS 'first_touch_at'  
  FROM page_visits  
  GROUP BY user_id),  
ft_attr AS (  
  SELECT ft.user_id,  
         ft.first_touch_at,  
         pv.utm_source,  
         pv.utm_campaign  
  FROM first_touch AS 'ft'  
  JOIN page_visits AS 'pv'  
  ON ft.user_id = pv.user_id  
  AND ft.first_touch_at = pv.timestamp)  
SELECT ft_attr.utm_source,  
       ft_attr.utm_campaign,  
       COUNT (*)  
FROM ft_attr  
GROUP BY 1, 2  
Order BY 3 DESC;
```


2.3 What is the User Journey? Q&A

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

Answer: There were 115 last touches on the purchase page for Weekly newsletter campaign. There were 113 for Retargeting-ad campaign. 54, for Retargeting-campaign. 52, for Paid search. 9, for Ten crazy cool tshirts facts. 9, for Interview with cool tshirts. 7, for Interview with cool tshirts founder and 2 for Cool tshirts search campaign.

lt_attr.utm_source	lt_attr.utm_campaign	COUNT(*)
Email	Weekly-newsletter	115
Facebook	Retargeting-ad	113
Email	Retargeting-campaign	54
Google	Paid-search	52
Buzzfeed	Ten-crazy-cool-tshirts-facts	9
NYtimes	Interview-with-cool-tshirts	9
Medium	Interview-with-cool-tshirts-founder	7
Google	Cool-tshirts-search	2

```
WITH first_touch AS (  
  SELECT user_id,  
         MAX(timestamp) AS 'first_touch_at'  
  FROM page_visits  
  WHERE page_name = '4 - purchase'  
  GROUP BY user_id),  
ft_attr AS (  
  SELECT ft.user_id,  
         ft.first_touch_at,  
         pv.utm_source,  
         pv.utm_campaign  
  FROM first_touch AS 'ft'  
  JOIN page_visits AS 'pv'  
  ON ft.user_id = pv.user_id  
  AND ft.first_touch_at = pv.timestamp)  
SELECT ft_attr.utm_source,  
       ft_attr.utm_campaign,  
       COUNT (*)  
FROM ft_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```

2.4 What is the User Journey? Q&A

d) How many visitors make a purchase?

Answer: There were a total of 361 visitors who made a purchase

COUNT(DISTINCT user_id)
361

e) What is the typical user journey?

The typical user journey for the majority of consumers, per campaign (top 2 tiers), was first touched with 'Interview with cool tshirts founder' (622) and 'Getting to know cool tshirts' (612). The majority of last touches, per campaign (top 2 tiers), were at 'Weekly newsletter' (447) and 'Retargeting-ad' (443). The majority of consumer's last touches on the purchase page, per campaign (top 2 tiers), were 'Weekly newsletter' (115) and 'Retargeting-ad' (113).

With that said, per campaign, the typical user's journey first touched at 'Interview with Cool tshirts founder' and last touched, along with making a purchase, were through 'Weekly newsletter' campaign.

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

3. Optimize the campaign budget

3.1 Optimize the Campaign Budget

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

Answer:

CoolTShirts should re-invest with the below campaigns in this order and here's why. (1 = Most favored, 5 = Least favored)

- 1. Weekly Newsletter = 25.7%**
- 2. Retargeting-ad = 25.5%**
- 3. Getting to know cool tshirts = 22.4%**
- 4. Retargeting-campaign = 22.0%**
- 5. Ten crazy cool tshirts facts = 4.7%**

The chart to the right shows the total# of campaign last touches and total# of campaign last touches that made purchases.

As you've noticed to the right, the 'Retargeting-campaign=245' has more last touches than 'Getting to know cool tshirts=232'. You also see that campaign 'Ten crazy cool tshirts facts=190' has more last touches than 'Interview with cool tshirts founder=184' campaign.

****However, the campaign with lesser last touches were placed ahead of the other, because their last touch campaign to purchase percentages are higher than the campaigns with more last touches.****

lt_attr.utm_source	lt_attr.utm_campaign	lt_attr.utm_campaign COUNT(*)	Purchase Page COUNT(*)	Total Last Touch# to Purchase %
Email	Weekly-newsletter	447	115	25.7%
Facebook	Retargeting-ad	443	113	25.5%
Email	Retargeting-campaign	245	54	22.0%
Nytimes	Getting-to-know-cool-tshirts	232	52	22.4%
Buzzfeed	Ten-crazy-cool-tshirts-facts	190	9	4.7%
Medium	Interview-with-cool-tshirts-founder	184	9	4.9%