codecademy

First-Touch Last-Touch Attribution – CoolTshirts.com
Learn SQL from Scratch
David Mandeville
06/18/2018

Table of Contents

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

1. Getting Familiar with CoolTshirts.com

1.1 Campaigns and Sources

How many campaigns and sources does CoolTshirts.com use and how are they related?
- By querying the data we were able to determine there are eight unique campaigns.
- I was also able to determine there are six unique sources.
- The relationship between the sources and campaigns is also show in the below table and code.
- I was able to answer all three of the questions for question one with one code.

SOURCE	CAMPAIGN	VISITS ATTRIBUTED
google	cool-tshirts-search	313
nytimes	getting-to-know-cool-tshirts	1349
medium	interview-with-cool-tshirts-founder	1178
google	paid-search	231
facebook	retargetting-ad	558
email	retargetting-campaign	300
buzzfeed	ten-crazy-cool-tshirts-facts	1198
email	weekly-newsletter	565

```
SELECT utm_source, utm_campaign,
COUNT(utm_campaign) AS 'visits attributed'
FROM page_visits
GROUP BY utm_campaign;
```

1.2 What Kind of Pages Are on CoolTshirts.com?

This questions was asking what pages we could expect when visiting CoolTshirts.com
- It is essential for us to answer this on the first question because we need to have an understand of the user flow before we begin analyzing the attribution.
- We were able to determine by querying the data that there are 4 unique pages on CoolTshirts.com

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

Distinct Page Names
1 – landing_page
2 – shopping_cart
3 – checkout
4 – purchase

2. What is The User Journey?

2.1 How Many First Touches is Each Campaign Responsible For?

We must use a First Touch query here to return the desired result.
- I modified a first touch query from the lesson to return the below results.
- My query used to do so is in the right panel.
- The interview on medium is responsible for driving the most traffic to CoolTshirts.com

```
WITH first_touch AS (
SELECT user_id,
MIN(timestamp) as first_touch_at
FROM page_visits
GROUP BY user_id)
SELECT pv.utm_source as 'Source',
pv.utm_campaign as 'Campaign',
count(ft.user_id) as 'First Touches'
FROM first_touch ft
JOIN page_visits pv
ON ft.user_id = pv.user_id
AND ft.first_touch_at = pv.timestamp
group by pv.utm_campaign;
```

Source	Campaign	First Touches
google	cool-tshirts-search	169
nytimes	getting-to-know-cool-tshirts	612
medium	interview-with-cool-tshirts-founder	622
buzzfeed	ten-crazy-cool-tshirts-facts	576

2.2 How Many Last Touches is Each Campaign Responsible For?

We must use a Last Touch query here to return the desired result.
- I modified a Last touch query from the lesson to return the below results.
- My query used to do so is in the below panel.
- The weekly newsletter sent by email is driving the most last touch traffic to CoolTshirts.com

Source	Campaign	Last Touches
google	cool-tshirts-search	60
nytimes	getting-to-know-cool-tshirts	232
medium	interview-with-cool-tshirts-founder	184
google	paid-search	178
facebook	retargetting-ad	443
email	retargetting-campaign	245
buzzfeed	ten-crazy-cool-tshirts-facts	190
email	weekly-newsletter	447

```
WITH last_touch AS (
SELECT user_id,
Max(timestamp) as last_touch_at
FROM page_visits
GROUP BY user_id)
SELECT pv.utm_source as 'Source',
pv.utm_campaign as 'Campaign',
count(lt.user_id) as 'Last Touches'
FROM last_touch lt
JOIN page_visits pv
ON lt.user_id = pv.user_id
AND lt.last_touch_at = pv.timestamp
group by pv.utm_campaign;
```

2.3 How Many Visitors Make a Purchase?

To answer this question we simply just need to do a distinct search for user ids that made it to the purchase page.
- Below are the users that made a purchase after visiting CoolTshirts.com
- The total number of users that made a purchase is 361
- The query used to generate this result is in the right panel.

Unique Purchases
361

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

2.4 How Many Last Touches on the Purchase Page is Each Campaign Responsible For?

We must use a Last Touch query here to return the desired result.
- I modified a Last touch query from the lesson to return the below results.
- My query used to do so is in the below panel.
- The weekly newsletter sent by email is responsible for the most purchases. It would be wise for them to reinvest in this campaign.

Source	Campaign	Purchases
google	cool-tshirts-search	2
nytimes	getting-to-know-cool-tshirts	9
medium	interview-with-cool-tshirts-founder	7
google	paid-search	52
facebook	retargetting-ad	112
email	retargetting-campaign	53
buzzfeed	ten-crazy-cool-tshirts-facts	9
email	weekly-newsletter	114

```
WITH last_touch AS (
SELECT user_id,
Max(timestamp) as last_touch_at
FROM page_visits
GROUP BY user_id)
SELECT pv.utm_source as 'Source',
pv.utm_campaign as 'Campaign',
count(lt.user_id) as 'Purchases'
FROM last_touch lt
JOIN page_visits pv
ON lt.user_id = pv.user_id
AND lt.last_touch_at = pv.timestamp
where pv.page_name is '4 - purchase'
group by pv.utm_campaign;
```

3. Campaign Reinvestment Plan

3.1 Which Campaigns Should CoolTshirt.com Reinvest in and Why?

CoolTshirt.com can only reinvest in 5 campaigns going forward, which should it choose?

- The two obvious campaigns that jump out are the **weekly newsletter sent out by email** and the **retargeting ad on Facebook**.
- These two are must haves when choosing to reinvest as they make up for over 60% of purchases.
- The next two are the **google paid search** campaign and the **email retargeting ad**.
- These two make up for roughly 30% of the total purchases.
- The fifth one to reinvest in is a toss up, but personally I would suggest the **nytimes getting to know cool shirts** campaign.
- It is my opinion that it would be valuable to get a real profile out there from a trusted news site.

Source	Campaign	Purchases
email	weekly-newsletter	114
facebook	retargetting-ad	112
email	retargetting-campaign	53
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