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Attribution Queries

Learn SQL from Scratch
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1. Get Familiar with Cool T Shirts

Cool T Shirts has 8 campaigns and 6 sources. The campaign is the advertisement campaign used, while the source is where the campaign was seen by the end user (Consumer). For example, The Ten-Crazy-cool-tshirts-facts campaign was given through the BuzzFeed website.

There are 4 Pages on the website:

1. Landing Page

2. Shopping Cart

3. Checkout

4. Purchase

User Journey

- The user journey begins with the user encountering one of the campaigns through the sources (Google, Facebook). The campaign will take the user to the Cool T Shirts Website. The user lands on the Landing Page, then shops the shopping page. They add items to their cart, and proceed to checkout and finally they will purchase the items selected.
- Please note it looks like most users actually buy the items after being targeted with a retargeting add. The typical user journey takes two visits to make a purchase.

How many first touches is each campaign responsible for?

Please see query results below for how many first touches each campaign is responsible for. To the right I have displayed the query used to answer the question.

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 ft
JOIN page_visits 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;
```

How many last touches is each campaign responsible for?

Please see query results below for how many last touches each campaign is responsible for. To the right I have displayed the query used to answer the question.

lt_attr.utm_source	lt_attr.utm_campaign	COUNT(*)
email	weekly-newsletter	447
facebook	retargetting-ad	443
email	retargetting-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 user_id),
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,

        lt_attr.utm_campaign,
    COUNT(*)
FROM lt_attr
Group by 1, 2
Order by 3 desc;
```

How many visitors make a purchase?

Please see query results below for how many visitors make a purchase. To the right I have displayed the query used to answer the question.

```
select COUNT(distinct user_id)
from page_visits
where page_name = '4 - purchase';
```

COUNT(distinct user_id)
361

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

Please see query results below for how many last touches on the purchase page each campaign is responsible for. To the right I have displayed the query used to answer the question.

lt_attr.utm_source	lt_attr.utm_campaign	COUNT(*)
email	weekly-newsletter	115
facebook	retargetting-ad	113
email	retargetting-campaign	54
google	paid-search	52
buzzfeed	ten-crazy-cool-tshirts-facts	9
nytimes	getting-to-know-cool-tshirts	9
medium	interview-with-cool-tshirts-founder	7
google	cool-tshirts-search	2

```
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),
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,

        lt_attr.utm_campaign,
    COUNT(*)
FROM lt_attr
Group by 1, 2
Order by 3 desc;
```

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

- CoolTShirts should re-invest in the following campaigns because they resulted in the most first touches, and combined the most last touches, and also accounted for the most actual purchases. The first three campaigns seem to get customers in the door, then the retargeting campaigns close the sales.

    ○ Interview with Founder

    ○ Getting to know cool shirts

    ○ Ten crazy cool shirts facts

    ○ Facebook Retargeting

    ○ Email retargeting