



Attribution Queries

Learn SQL from Scratch

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2. What is the user journey?

Get familiar with
CoolTShirts

CoolTShirts Data:

- Cool T-Shirts has 8 distinct campaigns and 6 distinct utm_sources.
- The website has 4 pages: 1)landing_page 2)shopping_cart 3)checkout and 4)purchase
- Queries:

--distinct campaigns--

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

--distinct sources--

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

--relationship--

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

--pages on website--

```
SELECT DISTINCT page_name
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

What is the user journey?

TOTAL FIRST TOUCHES PER CAMPAIGN

user_id	first_touch_at	utm_source	utm_campaign	COUNT (utm_campaign)
99990	2018-01-13 23:30:09	medium	interview-with-cool-tshirts-founder	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

QUERY:

```
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;
```

TOTAL LAST TOUCHES PER CAMPAIGN

ser_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	retargetting-ad	443
99990	2018-01-16 11:35:09	email	retargetting-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

QUERY:

```
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;
```

How Many Visitors Made a Purchase?

COUNT(DISTINCT user_id)	page_name
361	4 - purchase

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


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	114
99897	2018-01-06 09:41:19	facebook	retargetting-ad	112
99285	2018-01-24 09:00:58	email	retargetting-campaign	53
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

```
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  
 WHERE page_name = '4 - purchase'  
  GROUP BY utm_campaign  
 ORDER BY 5 DESC;
```