



Learn SQL from Scratch  
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Getting familiar with the  
company.

# 1.1 Number of campaigns

- Checking the number of campaigns

```
SELECT COUNT(DISTINCT utm_campaign) as  
'Q1.1 - Number of Campaigns'  
FROM page_visits;
```

**Q1.1 - Number of Campaigns**

8

# 1.1 Number of sources

- Checking the number of sources

```
SELECT COUNT(DISTINCT utm_source) as  
'Q1.2 - Number of Sources'  
FROM page_visits;
```

**Q1.2 - Number of Sources**

6

## 1.3 Relationship of campaigns and sources

- The source is where the traffic comes from (whether it comes from websites like buzzfeed, nytimes, a search engine like google or social media like facebook), while campaign is a step more specific naming to identify where exactly the traffic came from. Campaign makes it able to distinguish e.g. between paid and organic search when it comes to Google traffic

Q1.3 V1 - utm_source	Q1.3 V1 - utm_campaign
buzzfeed	ten-crazy-cool-tshirts-facts
email	weekly-newsletter
email	retargetting-campaign
facebook	retargetting-ad
google	paid-search
google	cool-tshirts-search
medium	interview-with-cool-tshirts-founder
nytimes	getting-to-know-cool-tshirts

```
SELECT DISTINCT utm_source as 'Q1.3 V1 -  
utm_source',  
                utm_campaign as 'Q1.3 V1 -  
utm_campaign' FROM page_visits  
ORDER BY utm_source;
```

```
SELECT utm_source as 'Q1.3 V2 -  
utm_source',  
        utm_campaign as 'Q1.3 V2 -  
utm_campaign'  
FROM page_visits  
GROUP BY 2  
ORDER BY 1;
```

## 2. Different Page Names

- Checking the different page names on cooltshirts.com

```
SELECT DISTINCT page_name as 'Q2 - Page  
Name'  
FROM page_visits;
```

Q2 - Page Name
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

What is the user journey?



# # of First Touches per campaigns

- Checking the number of first touches split up by campaigns

First Touch Source	First Touch Campaign	# of First Touches
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_count 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_count.utm_source as 'First Touch
Source',
       ft_count.utm_campaign 'First Touch
Campaign',
       COUNT(first_touch_at) as '# of First
Touches'
FROM ft_count
GROUP BY 1,2
ORDER BY 3 DESC;
```

# # of Last Touches per campaigns

- Checking the number of last touches split up by campaigns

Last Touch Source	Last Touch Campaign	# of Last Touches
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 last_touch as (  
    SELECT user_id,  
           MAX(timestamp) as last_touch_at  
    FROM page_visits  
    GROUP BY user_id),  
lt_count as (  
    SELECT lt.user_id,  
           lt.last_touch_at,  
           pv.utm_source,  
           pv.utm_campaign  
    FROM last_touch as lt  
    JOIN page_visits as pv  
      ON lt.user_id = pv.user_id AND  
         lt.last_touch_at = pv.timestamp)  
SELECT lt_count.utm_source as 'Last Touch  
Source',  
       lt_count.utm_campaign as 'Last Touch  
Campaign',  
       COUNT(last_touch_at) as '# of Last Touches'  
FROM lt_count  
GROUP BY 1,2  
ORDER BY 3 DESC;
```

## 2. Number of visitors making a purchase

- Checking the number of visitors that reach the page with the page name '4 - purchase'

**Q5 - v1 # of UserIDs on purchase page**

361

```
SELECT COUNT (DISTINCT user_id) as 'Q5 -  
v1 # of UserIDs on purchase page'  
FROM page_visits  
WHERE page_name = '4 - purchase';  
  
/* alternative */  
SELECT page_name,  
       COUNT(DISTINCT user_id) as 'Q5  
- v2 # of UserIDs on purchase page'  
FROM page_visits  
WHERE page_name = '4 - purchase'  
GROUP BY 1;
```

## 2. Number of Last Touches per Campaign

- Tracking many last touches *on the purchase page* each campaign is responsible for

Last Touch Source	Last Touch Campaign	# of Last Touches
email	weekly-newsletter	115
facebook	retargeting-ad	113
email	retargeting-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_count as (  
    SELECT lt.user_id,  
           lt.last_touch_at,  
           pv.utm_source,  
           pv.utm_campaign  
    FROM last_touch as lt  
    JOIN page_visits as pv  
      ON lt.user_id = pv.user_id and  
         lt.last_touch_at = pv.timestamp)  
SELECT lt_count.utm_source as 'Last Touch  
Source',  
       lt_count.utm_campaign as 'Last Touch  
Campaign',  
       COUNT(last_touch_at) as '# of Last  
Touches'  
FROM lt_count  
GROUP BY 1,2  
ORDER BY 3 desc;
```

# TYPICAL USER JOURNEY

- A typical user journey starts from an editorial environment. Sites like Medium, BuzzFeed or the N.Y.Times generate the largest part of first touches and seem to be the first point at which users get to know about [cooltshirts.com](https://cooltshirts.com)
- However, when it comes to converting the data suggests that users will need at last another contact to make them convert. Weekly Newsletters and retargeting campaigns on Facebook and Google (especially on the former) are driving conversions

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# Optimizing the campaign budget

# REINVESTING

- I would recommend reinvesting in the following five campaigns:  
interview-with-cool-tshirts-founder  
ten-crazy-cool-tshirts-facts  
getting-to-know-cool-tshirts  
retargeting-ad  
weekly-newsletter
- The combination of investing in editorial content as driving first touches and pairing this with retargeting-ads on facebook and relevant content in weekly newsletters converts best.

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google	cool-tshirts-search	169

# CONVERSIONRATES

first_touch_source	first_touch_campaign	first_touch_page_name	last_touch_source	last_touch_campaign	last_touch_page_name	conversion_rate
medium	interview-with-cool-tshirts-founder	1 - landing_page	facebook	retargetting-ad	4 - purchase	1.92
medium	interview-with-cool-tshirts-founder	1 - landing_page	email	weekly-newsletter	4 - purchase	1.87
buzzfeed	ten-crazy-cool-tshirts-facts	1 - landing_page	email	weekly-newsletter	4 - purchase	1.77
nytimes	getting-to-know-cool-tshirts	1 - landing_page	facebook	retargetting-ad	4 - purchase	1.77
buzzfeed	ten-crazy-cool-tshirts-facts	1 - landing_page	facebook	retargetting-ad	4 - purchase	1.72
nytimes	getting-to-know-cool-tshirts	1 - landing_page	email	weekly-newsletter	4 - purchase	1.47

For corresponding sql code please see the very last part of my sql-file - I couldn't fit it in here in a way that makes sense. Thank you for your understanding!