CoolTShirts Marketing Attribution

Analyze Data with SQL
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1. Get familiar with CoolTShirts

CoolTShirts, an innovative apparel shop, is running a bunch of marketing campaigns.

The aim of the project is to help them answer these questions about their campaigns:

1. Get familiar with the company.
- How many campaigns and sources does CoolTShirts use and how are they related? Be sure to explain the difference between utm_campaign and utm_source.
- What pages are on their website?

utm_source - Identifies which touchpoint sent the traffic (e.g. google, email, or facebook)

utm_campaign - Identifies the specific ad or email blast (e.g. retargetting-ad or weekly-newsletter)

```
SELECT utm_campaign, COUNT(utm_campaign)
FROM page_visits
GROUP BY utm_campaign;
```

utm_campaign	COUNT(utm_campaign)
getting-to-know-cool-tshirts	1349
ten-crazy-cool-tshirts-facts	1198
interview-with-cool-tshirts-founder	1178
weekly-newsletter	565
retargetting-ad	558
cool-tshirts-search	313
retargetting-campaign	300
paid-search	231

COUNT(DISTINCT utm_campaign)
8

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

```
SELECT utm_source, COUNT(utm_source)
FROM page_visits
GROUP BY utm_source;
```

utm_source	COUNT(utm_source)
buzzfeed	1198
email	865
facebook	558
google	544
medium	1178
nytimes	1349

COUNT(DISTINCT utm_source)
6

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

SELECT DISTINCT utm_campaign, utm_source
FROM page_visits;

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
retargetting-campaign	email
retargetting-ad	facebook
interview-with-cool-tshirts-founder	medium
paid-search	google
cool-tshirts-search	google

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

From the above queries we now have the following info:

- There are 8 campaigns in total currently being run

- There are 6 sources in total

- The companies website has a total of 4 pages for the user to access

2. What is the user journey?

2. What is the user journey?

- How many first touches is each campaign responsible for?
- How many last touches is each campaign responsible for?
- How many visitors make a purchase?
- How many last touches on the purchase page is each campaign responsible for?
- What is the typical user journey?

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

page_name	COUNT(DISTINCT user_id)
4 - purchase	361

SELECT page_name, COUNT(DISTINCT user_id)
FROM page_visits
GROUP BY page_name;

page_name	COUNT(DISTINCT user_id)
1 - landing_page	1979
2 - shopping_cart	1881
3 - checkout	1431
4 - purchase	361

```sql
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)
SELECT page_name,
        pv.utm_source,
        pv.utm_campaign,
COUNT(pv.utm_campaign) AS 'Total 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 3
ORDER BY 4 DESC;
```

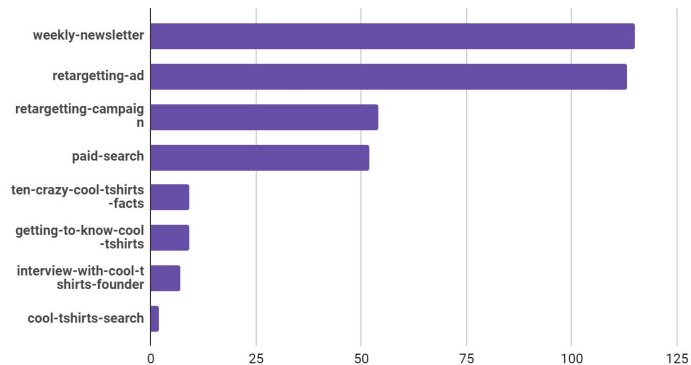| page_name	utm_source	utm_campaign	Total campaign
4 - purchase	email	weekly-newsletter	115
4 - purchase	facebook	retargetting-ad	113
4 - purchase	email	retargetting-campaign	54
4 - purchase	google	paid-search	52
4 - purchase	buzzfeed	ten-crazy-cool-tshirts-facts	9
4 - purchase	nytimes	getting-to-know-cool-tshirts	9
4 - purchase	medium	interview-with-cool-tshirts-founder	7
4 - purchase	google	cool-tshirts-search	2

3. Optimize the campaign budget

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- CoolTShirts can reinvest in 5 campaigns. Which should they pick and why?
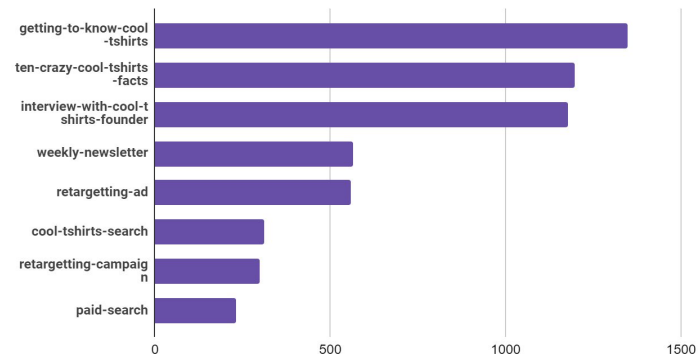
- **weekly-newsletter** - Had the most amount of purchases (32%) or 115 of the 361 purchases made, it also had the highest amount of last touches, although it did not receive any first touches its value is definitely there.
- **retargetting-ad** - Had 2nd highest (31%) or 113 of 361 purchases as well as 2nd highest last touches, also did not receive any first touches but just as valuable
- **retargetting_campaign** - Even though it did not have a very high amount of actual campaigns and no first touches, it still placed third for purchases (15%) and last touches
- **ten_crazy_cool_tshirt_facts** - Although it had 2nd highest campaign amounts it only placed 5th for purchases (2%) and 4th for last touches but it had 2nd highest first touch rate (32%) which means it still has value because it helps get people to the site initially
- **interview-with-cool-tshirts-founder** - placing 7th for purchases and 6th for last touch it surprisingly places 1st for 1st touch, meaning once again that it opens the door for new customers and would be wise to keep
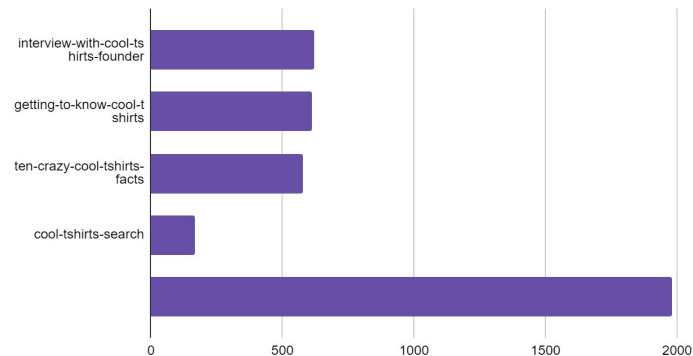
4. Charts

Total purchases per campaign

- weekly-newsletter
- retargetting-ad
- retargetting-campaign
- paid-search
- ten-crazy-cool-tshirts-facts
- getting-to-know-cool-tshirts
- interview-with-cool-tshirts-founder
- cool-tshirts-search

X-axis: 0, 25, 50, 75, 100, 125

Campaign Totals

- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- interview-with-cool-tshirts-founder
- weekly-newsletter
- retargetting-ad
- cool-tshirts-search
- retargetting-campaign
- paid-search

X-axis: 0, 500, 1000, 1500

First touch campaigns

- interview-with-cool-tshirts-founder
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- cool-tshirts-search

X-axis: 0, 500, 1000, 1500, 2000

Last touch campaigns

- weekly-newsletter
- retargetting-ad
- retargetting-campaign
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- interview-with-cool-tshirts-founder
- paid-search
- cool-tshirts-search

X-axis: 0, 100, 200, 300, 400, 500