CoolTShirts Marketing Campaigns

Learn SQL from Scratch
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1. Getting Familiar with CoolTShirts

CoolTShirts Campaigns & Relationships

CoolTShirts is currently tracking 8 different marketing campaigns through 6 different online sources. (The first two queries on the top right provide us with these numbers.)

Each of the "utm_source" line items is a path by which CoolTShirts is reaching out to their customers (either by an article posted online, a search result, or a direct email). The "utm_campaign" items are the names used for tracking each specific marketing campaign (the name of the article, the search, or the type of email sent out). (The last query on the top right provides us with the parameters shown in the table below it.)

For example, you can see that Buzzfeed is currently hosting an article called "Ten Crazy Cool Tshirts Facts". This article has an opportunity for the user to click through to CoolTShirts' site, and they track this information to determine how much contact/how many sales they're able to get through the hosted article.

Likewise, the email campaigns are specific emails sent to customers whose email address CoolTShirts has obtained. They send out a weekly newsletter, as well as a retargeting email (i.e., reaching out about specific items that have been viewed), and are tracking how many customers click through those emails to make their way back to the website and possibly make a purchase.

They're also monitoring search terms and a paid search through Google, an ad placed on Facebook, and articles on Medium and the New York Times.

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

SELECT COUNT(DISTINCT utm_source)
FROM page_visits;

SELECT DISTINCT utm_campaign, utm_source
FROM page_visits;
```

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

CoolTShirts Website Pages

CoolTShirts is also tracking four specific pages on their website. The idea behind this is that one can see how many (potential) customers are hitting the landing page (shown in the table as "1 - landing_page") or main page of the site, and then track them on their way through to a purchase.

Each of the (potential) customers that comes to the site will hit the landing page. Then, if they proceed to adding items to their shopping cart, that will be tracked, as well as if they then proceed on to the checkout page, and then if they successfully make a purchase and make it to the purchase page.

Customers that only make their way to the shopping cart or checkout page but don't proceed on to purchase are potential targets for retargetting campaigns/ads.

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

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

2. What is the user's journey?

First Touches Per Campaign

The query shown on the right is designed to give us information about a customer's "first touch" – the first time that they click through to (or visit) CoolTShirts.com.

The table below shows the number of visits that are attributed to each source and specific campaign. Only four of the eight campaigns are creating first touch opportunities.

utm_source	utm_campaign	COUNT(utm_campaign)
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)
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;
```

Last Touches Per Campaign

The query shown on the right is designed to give us information about a customer's "last touch" – the last visit made to CoolTShirts.com.

The table below shows the number of visits that are attributed to each source and specific campaign.

utm_source	utm_campaign	COUNT(utm_campaign)
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)
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;
```

Number of Last Touches Ending in a Purchase Per Campaign

In total, 361 customers made purchases from CoolTShirts. The queries to the right count these purchases, as well as show us which campaigns are responsible for how many last touches end specifically on the purchase page. The table below shows the specific counts for each of the campaigns.

utm_source	utm_campaign	COUNT(utm_campaign)
email	weekly-newsletter	115
facebook	retargetting-ad	113
email	retargetting-campaign	54
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

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


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 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;
```

What is the typical user's journey?

The majority of customers find themselves at CoolTShirts.com by reading an article and then clicking through to check out the site. They would most likely have been reading the Medium article "Interview With CoolTShirts Founder", the New York Times article "Getting To Know CoolTShirts", or the Buzzfeed article "Ten Crazy Cool Tshirts Facts".

Since those articles have a large number of first touch attributes, but not a large number of last touch (or last touch ending in a purchase) attributes, we can assume that many users visit the site for the first time, check out some items, and then navigate away to something else.

However, it's possible that they would have reached the landing page and then signed up for the weekly newsletter. The customer would then begin to receive contact from CoolTShirts.com through their email, and may also potentially be seeing Facebook ads for any items they may have viewed while on CoolTShirts.com. Email retargeting campaigns regarding specific items may also reach these users, and any of these three campaigns may entice the user to head back to CoolTShirts.com.

Most often, the weekly newsletter or the Facebook ads entice the user back to the site. Once there, those two campaigns are the most likely to push the user through to a purchase.

After their purchase, the user has a cool new t-shirt to wear and enjoy!

3. Optimizing the Campaign Budget

Re-Investing: Which Campaigns Are Best?

Looking at the data shown in the previous slides, we can see which campaigns are bringing in the most customers, and which ones are creating the most purchases.

Since the highest numbers in the last-touch purchase campaigns are CoolTShirts' weekly newsletter and retargeted ads, those are important to retain. This also indicates that most users do not make purchases on their first visits to the site, but instead after they've viewed the items and then navigated away, then been contacted again by CoolTShirts in some way.

However, these highest last-touch campaigns are not bringing in any first-touch customers at all. So – CoolTShirts needs to be both bringing in customers as well as enticing them to make a purchase.

For those reasons, I believe the best campaigns to continue are the Medium, New York Times, and Buzzfeed articles, as well as the email weekly newsletters, and the Facebook retargeting ads. Between those 5 campaigns, if the numbers stay consistent throughout the year, CoolTShirts will be bring in approximately 1800 potential customers per month, and be able to make sales to approximately 250 of them.

In addition, there's always a chance that the articles will go viral, pulling in even more customers. It's also possible that the larger the customer base on the weekly email list, the better opportunity they have for sales. Let's sell some CoolTShirts!