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# Attribution Queries: CoolTShirts

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## 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?

## 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?

## 3. Optimize the campaign budget

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

# 1. Get Familiar With CoolTShirts

- Sources identify the site that sent the traffic to CoolTShirt's website, whereas campaigns identify the specific advertising sent out to consumers
- CoolTShirts utilized 8 different campaigns across 6 different sources
  - Google and Email were each used for 2 different campaigns

```
1 select count(distinct utm_campaign) as 'Campaigns'
2 from page_visits;
3
4 select count(distinct utm_source) as 'Sources'
5 from page_visits;
6
7 select distinct utm_campaign as Campaigns,
8        utm_source as Sources
9 from page_visits;
```

Campaigns	
8	
Sources	
6	
Campaigns	Sources
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

# 1. Get Familiar With CoolTShirts Continued

- Unique pages on CoolTShirt's website can be found by using a 'Select Distinct' query
- By running a query for unique page names visited on the website, you can find CoolTShirts has 4 separate pages:
  - a. landing\_page
  - b. shopping\_cart
  - c. checkout
  - d. purchase

```
1 select distinct page_name as 'Page Names'  
2 from page_visits;
```

Page Names
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

## 2. What Is The User Journey?

- A “First Touch” indicates the first time a user is exposed to the site
- By joining the minimum from the timestamp column with the source and campaign, you can find the specific source and campaign that led to each user’s “First Touch”
- By doing this, we can see that half of the campaigns (4) resulted in a “First Touch”

```
1 With first_touch as (  
2   select user_id,  
3     min (timestamp) as first_touch_at  
4   from page_visits  
5   group by user_id),  
6 ft_attr as (  
7   select ft.user_id,  
8     ft.first_touch_at,  
9     pv.utm_source,  
10    pv.utm_campaign  
11  from first_touch ft  
12  join page_visits pv  
13    on ft.user_id = pv.user_id  
14    and ft.first_touch_at = pv.timestamp  
15 )  
16 select ft_attr.utm_source as Source,  
17        ft_attr.utm_campaign as Campaign,  
18        count(*) as Count  
19  from ft_attr  
20  group by 1, 2  
21  order by 3 desc;
```

Source	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

## 2. What Is The Customer Journey? Continued

- A “Last Touch” indicates the last exposure a user has with the site, usually resulting in a conversion
- Here we can see which campaigns accounted for the most “Last Touches”, with the weekly newsletter narrowly edging out the retargeting ad on Facebook

```
1  with last_touch as (  
2    select user_id,  
3           max(timestamp) as last_touch_at  
4    from page_visits  
5    group by user_id),  
6  lt_attr as (  
7    select lt.user_id,  
8           lt.last_touch_at,  
9           pv.utm_source,  
10          pv.utm_campaign  
11   from last_touch lt  
12  join page_visits pv  
13    on lt.user_id = pv.user_id  
14    and lt.last_touch_at = pv.timestamp  
15  )  
16  select lt_attr.utm_source as Source,  
17         lt_attr.utm_campaign as Campaign,  
18         count(*) as Count  
19  from lt_attr  
20  group by 1, 2  
21  order by 3 desc;
```

Source	Campaign	Count
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

## 2. What Is The Customer Journey? Continued

- How many of the 1,979 visitors actually made a purchase at CoolTShirts?
  - 361
- By selecting the distinct user IDs on the “purchase” page, you can find each unique purchase made

```
1 select count(distinct user_id) as 'Visitors Who Purchase'
2 from page_visits
3 where page_name = '4 - purchase';
```

Visitors Who Purchase
361

## 2. What Is The Customer Journey? Continued

- By adding the 'Where' query into the previous query used to find which campaign accounted for the most "Last Touches", we can find which campaign is responsible for the most purchases for CoolTShirts
- We can see that, like the "Last Touch" query, the weekly newsletter and retargeting ad on Facebook accounted for the most purchases

```
1  with last_touch as (  
2    select user_id,  
3           max(timestamp) as last_touch_at  
4    from page_visits  
5    where page_name = '4 - purchase'  
6    group by user_id),  
7  lt_attr as (  
8    select lt.user_id,  
9           lt.last_touch_at,  
10          pv.utm_source,  
11          pv.utm_campaign  
12    from last_touch lt  
13    join page_visits pv  
14      on lt.user_id = pv.user_id  
15      and lt.last_touch_at = pv.timestamp  
16  )  
17  select lt_attr.utm_source as Source,  
18         lt_attr.utm_campaign as Campaign,  
19         count(*) as Count  
20  from lt_attr  
21  group by 1, 2  
22  order by 3 desc;
```

Source	Campaign	Count
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



## 2. What Is The Typical User Journey?

- What is the typical user journey?
  - Of the 8 different campaigns run by CoolTShirts, only 4 of them accounted for a user's "First Touch"
    - 31% came from both the Interview with CoolTShirts founder on Medium and the Getting to Know CoolTShirts story from the New York Times
    - 29% came from the BuzzFeed article 'Ten Crazy CoolTShirts Facts'
    - The remaining 9% came from a Google search of CoolTShirts
  - All 8 campaigns accounted for a user's "Last Touch"
    - The 4 campaigns that account for all of the "First Touches" only accounted for 34% of "Last Touches"
    - The weekly email newsletter and Facebook retargeting ad accounted for the most "Last Touches", representing 23% and 22%, respectively.

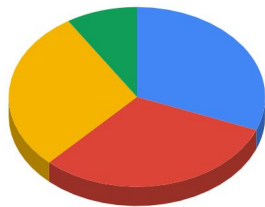
## 2. What Is The Typical User Journey? Continued

- CoolTShirts has a conversion rate of 18%, with 361 users making a purchase
- Like with “Last Touches”, the weekly email newsletter and Facebook retargeting ad accounted for the majority of the purchases, at 32% and 31%, respectively
  - The 4 campaigns that accounted for all of the “First Touches” only accounted for 7% of purchases

## 2. What Is The Typical User Journey? Continued

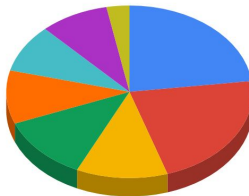
First Touches

● Interview With CoolTShirts Founder ● Getting To Know CoolTShirts  
● Ten Crazy CoolTShirts Facts ● CoolTShirts Search



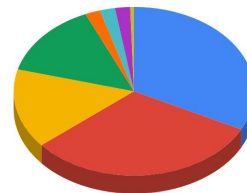
Last Touches

● Weekly Email Newsletter ● Facebook Retargeting Ad ● Email Retargeting Campaign  
● Getting To Know CoolTShirts ● Ten Crazy CoolTShirts Facts  
● Interview With CoolTShirts Founder ● Paid Search ● CoolTShirts Search



Purchases

● Weekly Email Newsletter ● Facebook Retargeting Ad ● Email Retargeting Campaign  
● Paid Search ● Getting To Know CoolTShirts ● Ten Crazy CoolTShirts Facts  
● Interview With CoolTShirts Founder ● CoolTShirts Search



# 3. Optimize The Campaign Budget

- Which 5 campaigns should CoolTShirts reinvest in?
  - Interview With CoolTShirts Founder (Medium)
  - Getting To Know CoolTShirts (NYT)
  - 10 Crazy CoolTShirts Facts (Buzzfeed)
  - Weekly Newsletter (Email)
  - Retargeting Ad (Facebook)

Campaign	1st Touches	% 1st Touches	Last Touches	% Last Touches	Purchases	% Purchases
Interview With CoolTShirts Founder	622	31%	184	9%	7	2%
Getting To Know CoolTShirts	612	31%	232	12%	9	2%
Ten Crazy CoolTShirts Facts	576	29%	190	10%	9	2%
CoolTShirts Search	169	9%	60	3%	2	1%
Weekly Newsletter	0	0%	447	23%	115	32%
Retargeting Ad (Facebook)	0	0%	443	22%	113	31%
Retargeting Campaign (Email)	0	0%	245	12%	54	15%
Paid Search	0	0%	178	9%	52	14%

### 3. Optimize The Campaign Budget Continued

- Each of the three stories (Interview With CoolTShirts Founder, Getting To Know CoolTShirts, and 10 Crazy CoolTShirts Facts) represent 91% of the “First Touches”, and serve as a good introduction to the company. Though they don’t convert into many purchases, they’re important to keep to introduce consumers to CoolTShirts
- The Weekly Newsletter and Facebook Retargeting Ad account for 63% of the conversions for CoolTShirts. Because of this, these 2 campaigns should be kept as well
- Combining the three campaigns that account for the large majority of the “First Touches” and the two campaigns that account for nearly two-thirds of purchases will provide CoolTShirts with a blend of exposure and conversions while making the marketing budget more efficient