



# Marketing Attribution For CoolTShirts.com

Analyze Data with SQL  
December 2022

# CoolTshirts.com Market Attribution

PAGE VISITS DATA SCHEMA

name	type
page_name	TEXT
timestamp	TEXT
user_id	INTEGER
utm_campaign	TEXT
utm_source	TEXT
Rows: 5692	

1. UTM parameters are a way of tracking visits to a website. Developers, marketers, and analysts use them to capture information like the time, attribution source, and attribution medium for each user visit.
2. First-touch attribution only considers the first source for each customer. This is a good way of knowing how visitors initially discover a website.
3. Last-touch attribution only considers the last source for each customer. This is a good way of knowing how visitors are drawn back to a website, especially for making a final purchase.

# Metric Indicators to Evaluate

1. How many campaigns and sources does CoolTShirts use? Which source is used for each campaign?
2. What pages are on the CoolTShirts website?
3. How many first touches is each campaign responsible for?
4. How many last touches is each campaign responsible for?
5. How many visitors make a purchase?
6. How many last touches on the purchase page is each campaign responsible for?
7. CoolTShirts can re-invest in 5 campaigns. Given your findings in the project, which should they pick and why?

# 1. How many campaigns and sources does CoolTShirts use? Which source is used for each campaign?

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

```
-- Campaigns and sources used by CoolTshirts!  
SELECT distinct utm_campaign, distinct utm_source  
FROM page_visits;
```

```
SELECT count(distinct utm_source),count(distinct  
utm_campaign)  
FROM page_visits;
```

count(utm_campaign)	count(utm_source)
8	6

## 2. What pages are on the CoolTShirts website?

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

```
SELECT distinct page_name  
FROM page_visits;
```

### 3. How many first touches is each campaign responsible for?

utm	campaign	first_touch_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

```
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 as 'ft'
JOIN page_visits as 'pv'
  ON ft.user_id = pv.user_id
  AND ft.first_touch_at = pv.timestamp
GROUP BY utm_campaign
ORDER BY 5 DESC;
```

## 4. How many last touches is each campaign responsible for?

utm	campaign	last_touch_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

```
WITH last_touch AS
( SELECT user_id,
  MAX(timestamp) as last_touch_at
  FROM page_visits
  GROUP BY user_id
),
lt_attr AS (
  SELECT lt.user_id,
    lt.last_touch_at,
    pv.utm_source,
    pv.utm_campaign,
    pv.page_name
  FROM last_touch 'lt'
  JOIN page_visits 'pv'
    ON lt.user_id = pv.user_id
    AND lt.last_touch_at = pv.timestamp
)
SELECT lt_attr.utm_source,
  lt_attr.utm_campaign,
  COUNT(*)
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

## 5. How many visitors make a purchase?

<b>purchase_count</b>
361

```
SELECT count( user_id), page_name  
FROM page_visits  
WHERE page_name like '%purchase%';
```

```
-- OR Alternative code  
SELECT count( user_id), page_name  
FROM page_visits  
WHERE page_name = '4 - purchase';
```



## 6. How many last touches on the purchase page is each campaign responsible for?

utm	campaign	last_touch_count
email	weekly-newsletter	115
facebook	retargeting-ad	113
email	retargeting-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

```
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_attr AS (
  SELECT lt.user_id,
    lt.last_touch_at,
    pv.utm_source,
    pv.utm_campaign,
    pv.page_name
  FROM last_touch lt
  JOIN page_visits pv
    ON lt.user_id = pv.user_id
    AND lt.last_touch_at = pv.timestamp
)
SELECT lt_attr.utm_source,
  lt_attr.utm_campaign,
  COUNT(*)
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

## 7. CoolTShirts can reinvest in 5 campaigns. Given your findings in the project, which should they pick and why?

-> Analysing the ratio of (*purchases : total last attribution pages*), can give a great indication of what campaigns and sources resulted in sales

-> Focusing on % of pages that follow through from first to last page to successful purchase will give a good scope of performance of campaigns

utm_source	utm_campaign	Purchase as last page count(utm_campaign)	Total last page count(utm_camp)	% purchases as last_pages
email	weekly - newsletter	115	447	25.73%
facebook	retargeting - ad	113	443	25.51%
email	retargeting - campaign	54	254	21.26%
google	paid - search	52	178	29.21%
buzzfeed	ten - crazy - about - cool - tshirts - facts	9	190	4.74%
nytimes	getting - to - know - cool - tshirts	9	232	3.88%
medium	interview- with - cool - tshirts - founder	7	184	3.8%
google	cool - tshirts - search	2	60	3.33%

## 7. CoolTShirts can reinvest in 5 campaigns. Given your findings in the project, which should they pick and why?

The top 5 campaigns with the highest % of purchases as the last page attributed are:

1. Paid search on google with the highest turnover of 29%
2. Weekly-newsletter by email at 26% tied with Retargeting-ad on facebook at a close turnover rate of 25%
3. Retargeting campaign by email at 21% follows on the list
4. The rest of the campaigns are very far from the successes of the top four campaigns and might need to re-evaluated before reinvestment

NB: Medium and NYTimes have the lowest rates 3.8%. Marketing team should encourage use of email or switch utm sources

CAMPAIGN PERFORMANCE

