

Marketing Attribution

Analyze Data with SQL

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Example Table of Contents

1. Introduction
2. User Journey
3. Conclusions

1. Introduction

1.1 About CoolTShirts UTM Campaigns and Sources

CoolTShirts has 6 UTM_Sources and 8 UTM_Campaigns. A UTM_source is an individual site within a source and may have multiple campaigns.

utm_source	utm_campaign
NYTimes	getting-to-know-cool-tshirts
Email	weekly-newsletter
Buzzfeed	ten-crazy-cool-tshirts-facts
Email	retargetting-campaign
Facebook	retargetting-ad
Medium	interview-with-cool-tshirts-founder
Google	paid-search
Google	cool-tshirts-search

CoolTShirts also has 4 pages.

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

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

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

```
SELECT DISTINCT utm_source, utm_campaign
FROM page_visits;
```

1.2 About CoolTShirts Page Names

CoolTShirts has 4 pages.

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

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

2. User Journey

2.1 First Touches for each Campaign

Four campaigns are responsible for first touches, with the most successful campaigns coming from Medium, NYTimes and BuzzFeed.

utm_source	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(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  
GROUP BY utm_campaign  
ORDER BY 5 DESC;
```

2.2 Last Touches for each Campaign

Eight campaigns are responsible for last touches, with the most successful campaigns coming from email and facebook. Email is the most successful utm_source for last touches.

utm_source	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  
)  
SELECT lt.user_id, lt.last_touch_at, pv.utm_source,  
       pv.utm_campaign, COUNT(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  
GROUP BY utm_campaign  
ORDER BY 5 DESC;
```


2.3 Each Campaign's Last Touches on the Purchase Page

Eight campaigns are responsible for last touches, with the most successful campaigns coming from email and facebook. Email is the most successful utm_source for last touches.

utm_source	utm_campaign	Last Touch Count
email	weekly-newsletter	115
facebook	retargetting-ad	113
email	retargetting-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  
)  
SELECT lt.user_id, lt.last_touch_at, pv.utm_source,  
       pv.utm_campaign, COUNT(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  
GROUP BY utm_campaign  
ORDER BY 5 DESC;
```

2.4 Number of Customers who make a Purchase

CoolTShirts has 361 customers who actually made a purchase.

page_name	Count
4 - purchase	361

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

3. Conclusions

3. Top 5 campaigns to Invest in

1. Weekly Newsletter (email)
 - a. With the highest amount of last touches on the purchase page (115) - this is a highly successful campaign.
2. Retargeting Ad (facebook)
 - a. This campaign by facebook had the second highest last touches on the purchase page (113).
3. Retargeting Campaign (email)
 - a. This campaign also had a large value of last touches and last touches on the purchase page (54)

It would be more beneficial to invest into an **additional facebook and email campaign** instead of any other existing campaigns. While medium, buzzfeed and NYTimes generated a lot of first touches, they were not captivating enough to result in last touches on the purchase page or last touches in general. It doesn't seem to make sense to invest more into these campaigns with such poor return on investment. Facebook ads and emails are actually resulting in the most purchases, so it would be beneficial to invest into these sources. These email and facebook campaigns could be targeted to people who consumed the medium and NYtimes campaigns, interview-with-cool-tshirts-founder and getting-to-know-cool-tshirts respectively because those two campaigns had an overwhelmingly large first touch count.