



# CoolTShirts

Learn SQL from Scratch

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# Overview of CoolTShirts

There were 8 different Campaigns that ran in 6 unique Sources. Most sources ran only one Campaign with Google and email being the only ones to run two Campaigns.

```
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;
```

# Overview of CoolTShirts

CoolTShirts has four pages on their website:

- The landing page
- The shopping cart
- The checkout
- The purchase page

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

# Analysis

Only four campaigns were responsible for first-touches. The top three get about 30% of first-touches each with Google a mere 10%. Combined, they only account for 5% of all last-touches associated with purchases. So it is clear that the campaign that influences first-touch is not the same campaign that triggers last-touch and ultimately a purchase. But they are still important because without that first-touch, there would be no last-touch (and purchase). The typical path to purchase seems to read one of the top three campaigns and then purchase later while reading email or checking Facebook and being hit with a reminder ad to purchase.

Source	Campaign	Number of First-touches
Medium	Interview with the CoolTShirts	622
New York Times	Getting to Know CoolTShirts	612
Buzzfeed	Ten Crazy CoolTShirts Facts	576
Google	CoolTShirts search	169

## First-touches

```
WITH first_touch AS (  
    SELECT user_id,  
           MIN(timestamp) as first_touch_at  
    FROM page_visits  
    GROUP BY user_id),  
ft_attr AS (  
    SELECT ft.user_id,  
           ft.first_touch_at,  
           pv.utm_source,  
           pv.utm_campaign  
    FROM first_touch ft  
    JOIN page_visits pv  
      ON ft.user_id = pv.user_id  
      AND ft.first_touch_at = pv.timestamp)  
SELECT ft_attr.utm_source,  
       ft_attr.utm_campaign,  
       COUNT (*)  
FROM ft_attr  
GROUP BY 1, 2  
ORDER BY 3 DESC;
```

None of the top 3 last-touches were the same as any of the first touches with Facebook and email accounting for 57% of last-touches. These correspond with 78% of purchases!

Source	Campaign	Number of Last-touches
Email	Weekly Newsletter	447
Facebook	Re-targeting ad	443
Email	Re-targeting campaign	245
New York Times	Getting to Know CoolTShirts	232
Buzzfeed	Ten Crazy CoolTShirts Facts	190
Medium	Interview with the CoolTShirts	184
Google	Paid search	178
Google	CoolTShirts search	60

## Last-touches

```
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  
    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;
```

# How many visitors make a purchase?

361 Visitors made purchases. 63% were related to last-touches with the Weekly newsletter (email) and the re-targeting ad on Facebook.

Source	Campaign	Number of Last-touches
Email	Weekly Newsletter	115
Facebook	Re-targeting ad	113
Email	Re-targeting campaign	54
Google	Paid search	52
Buzzfeed	Ten Crazy CoolTShirts Facts	9
New York Times	Getting to Know CoolTShirts	9
Medium	Interview with the CoolTShirts	7
Google	CoolTShirts search	2

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

```
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
    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;
```

# Recommendation



# CoolTShirts should invest in these five campaigns:

- Interview with CoolTShirts founder/Medium
  - 31% of first touches
- Getting to know CoolTShirts/NYTimes
  - 31% of first touches
- Ten Crazy CoolTShirts Facts/Buzzfeed
  - 29 % of first touches
- Weekly newsletter/email
  - 23% of last-touches and 32% of purchases
- Re-targeting ad/Facebook
  - 22% of last-touches and 31% of purchases

# Calculations

ft_attr.utm_source	ft_attr.utm_campaign	COUNT (*)	First touches resulting purchase in same campaign			
medium	interview-with-cool-tshirts-founder	622	31%		1%	
nytimes	getting-to-know-cool-tshirts	612	31%		1%	
buzzfeed	ten-crazy-cool-tshirts-facts	576	29%		2%	
google	cool-tshirts-search	169	9%		1%	
		1979				

lt_attr.utm_source	lt_attr.utm_campaign	COUNT (*)		La lt_attr.utm_source	lt_attr.utm_campaign	COUNT (*)	
email	weekly-newsletter	447	23%	email	weekly-newsletter	115	32%
facebook	retargeting-ad	443	22%	facebook	retargeting-ad	113	31%
email	retargeting-campaign	245	12%	email	retargeting-campaign	54	15%
nytimes	getting-to-know-cool-tshirts	232	12%	google	paid-search	52	14%
buzzfeed	ten-crazy-cool-tshirts-facts	190	10%	buzzfeed	ten-crazy-cool-tshirts-facts	9	2%
medium	interview-with-cool-tshirts-founder	184	9%	nytimes	getting-to-know-cool-tshirts	9	2%
google	paid-search	178	9%	medium	interview-with-cool-tshirts-founder	7	2%
google	cool-tshirts-search	60	3%	google	cool-tshirts-search	2	1%
		1979			Total	361	

# Calculations

lt_attr.utm_source	lt_attr.utm_campaign	COUNT (*)	
email	weekly-newsletter	115	32%
facebook	retargetting-ad	113	31%
email	retargetting-campaign	54	15%
google	paid-search	52	14%
buzzfeed	ten-crazy-cool-tshirts-facts	9	2%
nytimes	getting-to-know-cool-tshirts	9	2%
medium	interview-with-cool-tshirts-founder	7	2%
google	cool-tshirts-search	2	1%
	Total	361	