



# Attribution @ CTS

Learn SQL from Scratch

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## **Get familiar with CoolTShirts:**

1. How many campaigns? What source is used for each campaign? (3 queries)
2. What pages are on the CoolTShirts Website?

## **What is the user journey?**

1. How many first & last touches is each campaign responsible for?
2. How many visitors make a purchase?
3. How many last touches on the purchase page is each campaign responsible for?
4. Summarize the user journey

## **Optimize the campaign budget:**

1. CoolTShirts can reinvest in 5 campaigns. Which should they pick and why?

# Getting familiar with CoolTShirts:

# CoolTshirts - campaigns and sources

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

CoolTShirts has: **8 campaigns**, with users arriving from **6 sources**.

A **source** is the platform from which traffic/potential customers originate, and the **campaign** is the specific name for a promotion or message shared with a customer.

```
-- Question 1 --
/*Campaign Count */
SELECT COUNT(DISTINCT utm_campaign) AS 'Campaigns'
FROM page_visits;

/*Source Count */
SELECT COUNT(DISTINCT utm_source) AS 'Sources'
FROM page_visits;

/*Campaign sources */
SELECT DISTINCT utm_source,
               utm_campaign
FROM page_visits;
```

# CoolTshirts - website pages

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

CoolTShirts has: **4 webpages**

Pages are the individual pages where a campaign linked traffic. Users will have landed on a page and then along the funnel from landing page to checkout and purchase along their journey.

```
-- Question 2 --  
/*Webpages */  
SELECT DISTINCT page_name  
FROM page_visits;
```

# Exploring the User Journey:

# CoolTshirts - first touch

Source	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

CoolTShirts has:

**4 campaigns are responsible for the first-touch** with a user, with the Interview with CoolTShirts founder from Medium being the most popular entry point.

First touch is identified by finding the first timestamp associated to a given user. This is the campaign which exposes and introduces consumers to the Cool TShirts brand and its products.

```
-- Question 3 - 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 AS 'Source',
  ft_attr.utm_campaign AS 'Campaign',
  COUNT(*) AS 'First Touch Count'
FROM ft_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

# CoolTshirts - last touches

Source	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

By identifying the latest timestamp associated with a customer, we can identify the source and campaign most effective in contributing to purchases. As a source, email seems to be the most effective, with the Facebook retargeting ads playing a part.

```
-- Question 4 - 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 AS 'Source',
       lt_attr.utm_campaign AS 'Campaign',
       COUNT(*) AS 'Last Touch Count'
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```



# CoolTshirts - visitors & purchases (by last touch)

Of its 1,979 unique visitors, 361 purchase a CoolTShirt product.  
*18.24% of visitors complete their journey.*

Campaigns that converted customers are as follows:

Source	Campaign	Last Touch Count
email	weekly-newsletter	115
facebook	getting-to-know-cool-tshirts	113
email	ten-crazy-cool-tshirts-facts	54
google	cool-tshirts-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

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

-- Question 6 - last touches on purchase page --

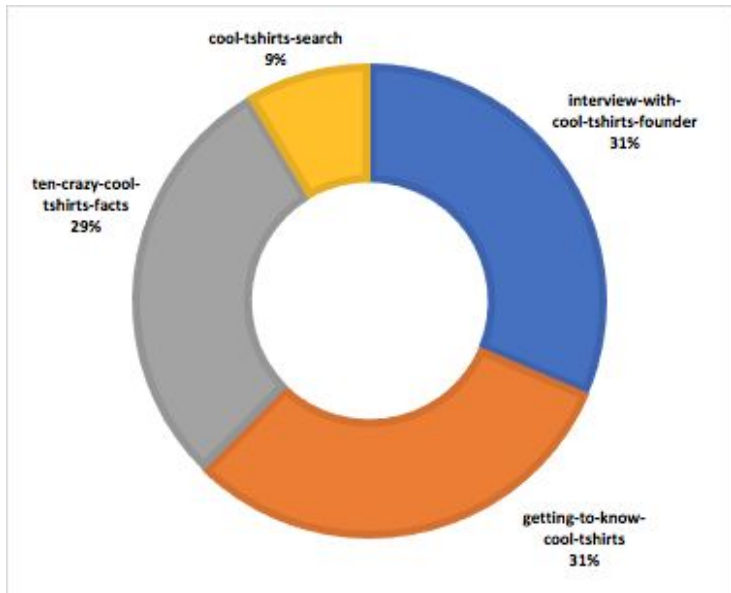
```
WITH last_touch AS (
  SELECT user_id,
         MAX(timestamp) as last_touch_at
  FROM page_visits
  WHERE page_name = '4 - purchase'
  GROUP BY user_id),

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 AS 'Source',
       lt_attr.utm_campaign AS 'Campaign',
       COUNT(*) AS 'Last Touch Count'
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

# CoolTshirts - The User Journey, I

The majority of CoolTShirts brand awareness starts from larger publications featuring products or stories on their sites, with links back to the website for customers to begin browsing. Of 1,979 site visitors, 91.5% are of this type.

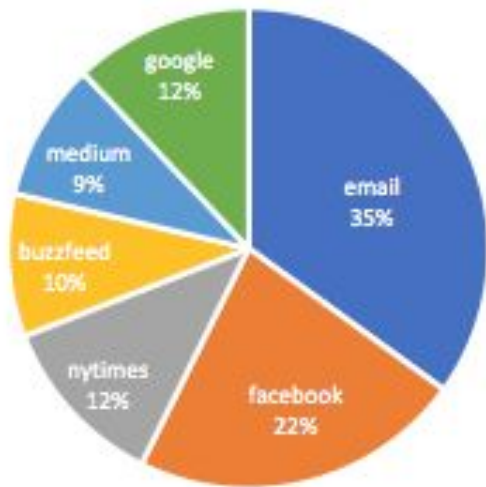


There is, however, a drop-off in first and last touch between featured stories on Buzzfeed, NY Times, and Medium and purchase.

campaign	source	1st touch	% 1st touch	Last touch	% last touches	Purchase	% purchase
getting-to-know-cool-tshirts	nytimes	612	31%	232	12%	9	2%
ten-crazy-cool-tshirts-facts	buzzfeed	576	29%	190	10%	9	2%
interview-with-cool-tshirts-founder	medium	622	31%	184	95%	7	2%
cool-tshirts-search	google	169	9%	60	3%	2	1%
weekly-newsletter	email	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	google	0	0%	178	9%	52	14%

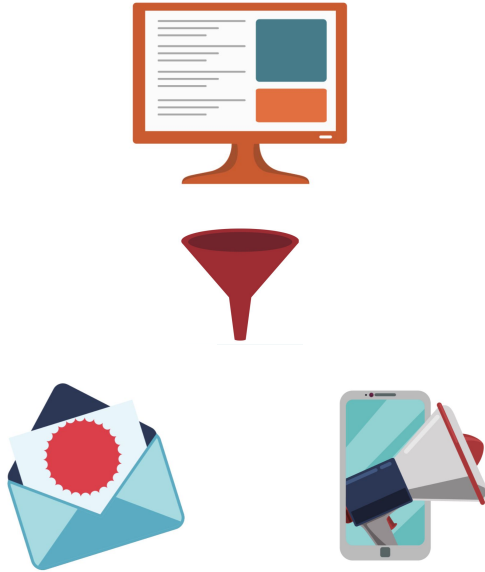
# CoolTshirts - The User Journey, II

But what actually converts browsers to buyers? Email campaigns have displayed their efficacy in last touch, representing 35% of last touch alone. Perhaps the most effective single-platform driver of last touch and purchase rates are the retargetted Facebook ads.



campaign	source	1st touch	% 1st touch	Last touch	% last touches	Purchase	% purchase
getting-to-know-cool-tshirts	nytimes	612	31%	232	12%	9	2%
ten-crazy-cool-t-shirts-facts	buzzfeed	576	29%	190	10%	9	2%
interview-with-cool-tshirts-founder	medium	622	31%	184	95%	7	2%
cool-tshirts-search	google	169	9%	60	3%	2	1%
weekly-newsletter	email	0	0%	447	23%	115	32%
retargetting-ad	facebook	0	0%	443	22%	113	31%
retargetting-campaign	email	0	0%	245	12%	54	15%
paid-search	google	0	0%	178	9%	52	14%

# CoolTshirts - The User Journey, III



Potential buyers are drawn in by sponsored articles and campaigns on large digital publications that grow their reach. But these campaigns don't have much revenue impact.

Targetted ad campaigns on facebook and two email campaigns help nudge customers through the funnel to make purchases.

Retargetting efforts are perhaps the biggest revenue driver for CoolTshirts.

**Optimize the campaign budget:**

# CoolTshirts - optimizing the budget

1. **Continue:** Given that consumers are not searching for CoolTShirts by name, exposure is critical for business. 3 feature campaigns are effective in offering CoolTShirts the exposure they need. These should be continued.
2. **Continue:** Retargetting campaigns should be continued. Retargetting campaigns can capture generated interest from exposure campaigns and redirect appropriately to drive conversions that hit revenue targets. 46% of purchases come from retargetting campaigns.
  - a. Possible expansion into retargetting from NY Times, BuzzFeed, and Medium as these sources generate most site-traffic.
3. **Discontinue:** While the weekly email newsletter generates more purchases and a higher rate of them, it's challenging to expand the email list, and segmentation/customer value across list is unknown. Less opportunity to expand.
4. **Discontinue:** Google is inevitable, but CoolTshirts is getting very little ROI on whatever spend they're putting towards search and paid campaigns.
  - a. Search generates 169 first touches (9%), and paid search generates 178 last touches (9%)

## Invest in these 5 campaigns

interview-with-cool-thshirts-founder

getting-to-know-cool-tshirts

ten-crazy-cool-shirts-facts

retargetting-ad

retargetting-campaign