

# CoolTShirts.com Analysis

Learn SQL from Scratch

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# Agenda

Company Overview

User Journey

Optimization Recommendations

## 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?

# Get Familiar with CoolTShirts.com

How many campaigns and sources does CoolTShirts use and how are they related?

- *UTM parameters* are a way of tracking visits to a website, and capture information like the time, attribution source, and attribution medium for each user visit. For this audit, we analyzed two parameters: `utm_source` and `utm_campaign`.
  - **`utm_source`** is used to identify the source, or origin, of traffic on a website, such as search engines (Google, Bing, Yahoo), Email, and websites (Buzzfeed, The New York Times, etc.)
  - **`utm_campaign`** is used to identify the specific ad or email blast, such as `weekly-newsletter` or `paid-search`.
- There can be multiple sources per campaign at each point in the marketing funnel
- There can also be multiple campaigns across a single source. We see this in our dataset for Google (`utm_campaign=paid-search & utm_campaign=cool-tshirts-search`) and Email (`utm_campaign=weekly-newsletter & utm_campaign=retargetting-campaign`)

```
1 -- Question 1 --
2 -- Campaigns --
3 SELECT COUNT (DISTINCT utm_campaign)
4 FROM page_visits;
5 -- Sources --
6 SELECT COUNT (DISTINCT utm_source)
7 FROM page_visits;
8 -- Relationship --
9 SELECT DISTINCT utm_campaign, utm_source
10 FROM page_visits;
```

Sources	Campaigns
6	8

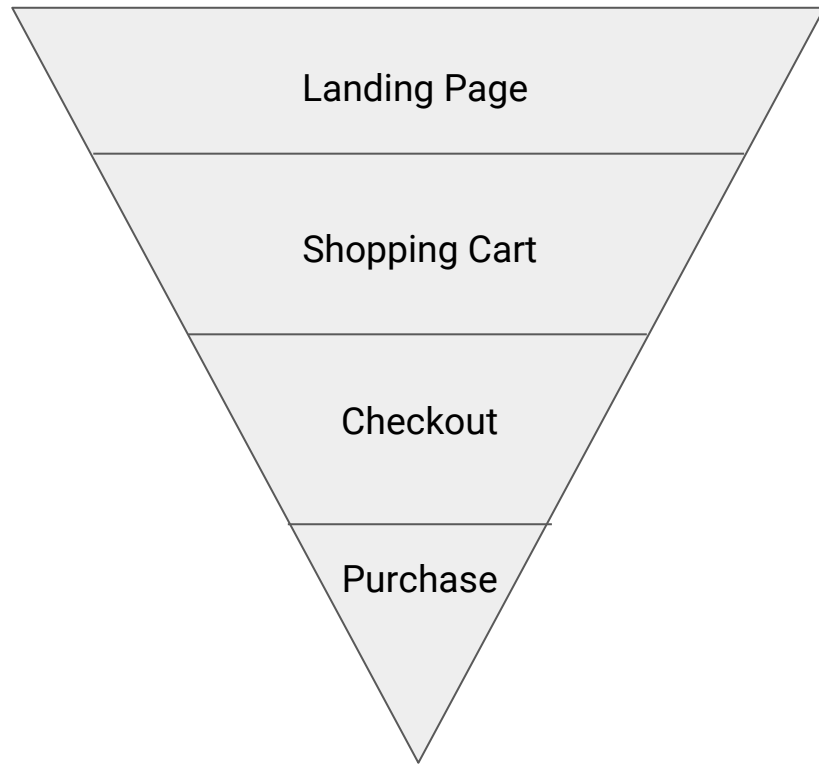
Campaign	Source
getting-to-know-cool-tshirts	nytimes
weekly-newsletter	email
ten-crazy-cool-tshirts-facts	buzzfeed
retargetting-campaign	email
retargetting-ad	facebook
interview-with-cool-tshirts-founder	medium
paid-search	google
cool-tshirts-search	google

# Get Familiar with CoolTShirts.com

What pages are on their website?

- There are four pages that go through a typical website funnel:
  1. Landing Page
  2. Shopping Cart
  3. Checkout
  4. Purchase

```
12 -- Question 2 --  
13 SELECT DISTINCT page_name  
14 FROM page_visits;
```



# What is the User Journey

How many first touches is each campaign responsible for?

- We can see that only four of the eight campaigns were responsible for first touches.
- The four campaigns that aren't responsible for first touches typically are targeting users for further down the funnel:
  - Two of the campaigns in our dataset are specified as retargeting campaigns, which usually target users who have been to the website before
  - One campaign is a weekly newsletter, which usually requires the user to visit the site and opt-in
  - We also see that the paid search campaign is not included in our first touches analysis. This campaign may be a branded campaign that focuses on exact keywords, and therefore isn't as prominent for users discovering CoolTShirts.com.

Campaign	First Touches
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	169

```
16 -- Question 3 -> Total First Touches --
17 WITH first_touch AS (
18     SELECT user_id,
19         MIN(timestamp) as first_touch_at
20     FROM page_visits
21     GROUP BY user_id
22 )
23 SELECT COUNT (ft.first_touch_at)
24 FROM first_touch ft
25 JOIN page_visits pv
26     ON ft.user_id = pv.user_id
27     AND ft.first_touch_at = pv.timestamp;
28
```

```
29 -- Question 3 -> First Touch Attribution by Campaign
30 WITH first_touch AS (
31     SELECT user_id,
32         MIN(timestamp) as first_touch_at
33     FROM page_visits
34     GROUP BY user_id
35 )
36 SELECT pv.utm_campaign,
37     count(ft.first_touch_at)
38 FROM first_touch ft
39 JOIN page_visits pv
40     ON ft.user_id = pv.user_id
41     AND ft.first_touch_at = pv.timestamp
42 GROUP BY pv.utm_campaign;
```

# What is the User Journey

How many last touches is each campaign responsible for?

- Each of the eight campaigns are responsible for last touches.
- We can see that the campaigns focused on retargeting and require opt-in have the most last touches, while the campaigns that are focusing on prospecting have fewer last touches.

```

57
58 -- Question 4 --
59 WITH last_touch AS (
60     SELECT user_id,
61            MAX(timestamp) as last_touch_at
62     FROM page_visits
63     GROUP BY user_id
64 )
65 SELECT pv.utm_campaign,
66        COUNT(lt.last_touch_at) AS 'Last Touches'
67 FROM last_touch lt
68 JOIN page_visits pv
69     ON lt.user_id = pv.user_id
70     AND lt.last_touch_at = pv.timestamp
71 GROUP BY pv.utm_campaign
72 ORDER BY count(lt.last_touch_at) DESC;
73

```

Campaign	Last Touches
weekly-newsletter	447
retargeting-ad	443
retargeting-campaign	245
getting-to-know-cool-tshirts	232
ten-crazy-cool-tshirts-facts	190
interview-with-cool-tshirts-founder	184
paid-search	178
cool-tshirts-search	60

# What is the User Journey

How many visitors make a purchase?

- There were 361 purchases in this dataset.

How many last touches *on the purchase page* is each campaign responsible for?

- We see that the retargeting campaigns are responsible for most of the purchases, specifically the weekly newsletter and Facebook retargeting ad.

```
79 -- Question 6 --
80 WITH last_touch AS (
81     SELECT user_id,
82            MAX(timestamp) as last_touch_at
83     FROM page_visits
84     WHERE page_name = '4 - purchase'
85     GROUP BY user_id
86 )
87 SELECT pv.utm_source, pv.utm_campaign,
88        COUNT(lt.last_touch_at)
89 FROM last_touch lt
90 JOIN page_visits pv
91     ON lt.user_id = pv.user_id
92     AND lt.last_touch_at = pv.timestamp
93 GROUP BY pv.utm_campaign
94 ORDER BY COUNT (lt.last_touch_at) DESC;
```

Purchases
361

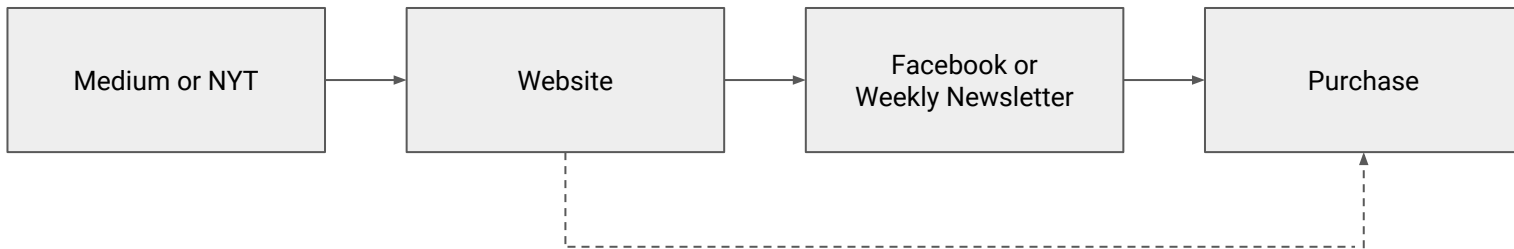
```
74 -- Question 5 --
75 SELECT COUNT (DISTINCT(user_id)) as 'Purchases'
76 FROM page_visits
77 WHERE page_name = '4 - purchase';
```

Source	Campaign	Purchases
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

# What is the User Journey

What is the typical user journey?

- We know that there are four prospecting campaigns that are responsible for all of the first touches on the CoolTShirts website.
  - News articles about the company from the Medium & New York Times were each responsible for roughly a third of all first touches
  - Google Search drove slightly under 10% of all first touches
- We also know that retargeting campaigns are responsible for the majority of the last-touch attributions, as well as purchases. In particular, Facebook retargeting and the Weekly Newsletter are responsible for the most purchases. Less than 10% of all purchases come from prospecting campaigns.
- The user journey likely looks similar to the below flow:





# What is the User Journey

Source	Campaign	Total First Touches	% of First Touches
medium	interview-with-cool-tshirts-founder	622	31%
nytimes	getting-to-know-cool-tshirts	612	31%
buzzfeed	ten-crazy-cool-tshirts-facts	576	29%
google	cool-tshirts-search	169	9%

# What is the User Journey

Source	Campaign	Last touches	Purchases	% of Purchases	CVR
email	weekly-newsletter	447	115	32%	25%
facebook	retargetting-ad	443	113	31%	25%
email	retargetting-campaign	245	54	15%	22%
google	paid-search	178	52	14%	29%
nytimes	getting-to-know-cool-tshirts	232	9	2.5%	3.8%
buzzfeed	ten-crazy-cool-tshirts-facts	190	9	2.5%	4.7%
medium	interview-with-cool-tshirts-founder	184	7	2%	3.8%
google	cool-tshirts-search	60	2	1%	3.3%

# Recommendation

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

- In order to maintain a healthy balance between new users and purchases, we recommend focusing on the following five campaigns:
- For prospecting, we recommend investing in the nytimes and medium articles. These campaigns brought in the most traffic to the site.
  - If we had budgets for one more campaign, we recommend the buzzfeed article. Although it brought in fewer users to the site, it did have a higher conversion rate from last touch to purchase than the two campaigns recommended here.
- For Retargeting, we recommend investing in the Google campaign, the weekly newsletter, and the retargeting ad
  - Facebook and the weekly newsletter both accounted for about a third of the total purchases
  - Although the retargeting email accounted for slightly more total purchases during this time frame than the Google campaign (15% v. 14%) , we do see that the Google campaign has a higher conversion rate from last touch to purchase. Therefore, if we invest more in this campaign and the conversion rate hold we should see more conversions for more efficient costs than the Google campaign.

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