



# Capstone Project

Learn SQL from Scratch

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# **1. Get familiar with CoolTShirts**

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

- CoolTShirts has been running 8 distinct campaigns using 6 distinct sources and the relationship between them is displayed in the table on the right.
- `utm_campaign` and `utm_source` are UTM parameters which are simply tags that you add to a URL that are sent back to your tracking software (ex. Matomo or Google Analytics).
- `utm_source` (aka traffic source, touchpoint, channel) is a variable that allows you to track where the traffic to your website originated from (ex. google, medium, email, ..).
- `utm_campaign` is a variable for the the campaign name that allows you to track the performance of a specific campaign (newsletter, paid-search, getting-to-know-cool-tshirts)

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

## 1.2 What pages are on their website?

- The page\_visits dataset tells for each user when they visited a page on the website and how they got there, from which traffic source and campaign.
- CoolTShirts tracks four pages on their website to monitor the user journey from lead to conversion: landing page, shopping cart, checkout and purchase pages.
- Each page corresponds to a different user action and level of interest in the company products. The user who wants to learn more about the brand and the products will go to the landing and shopping cart pages, the ones who are looking to purchase with an increasing intent and conviction will reach further along in the lead-to-conversion funnel to the checkout and purchase pages.

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

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

## 2.1 How many first touches is each campaign responsible for?

- First touches represent the first marketing channel to engage a visitor for the first time. While CoolTShirts has been running 8 distinct campaigns, only four appear to have been targeted to get first touches by the users.
- The names of these campaigns are quite revealing about their target audience and are all about showcasing the company brand, story and culture as well as directing google searches to the CoolTShirts website.
- The most successful campaign is the interview with the company founder with 622 first touches by distinct visitors, followed by getting to know the company with a close 612. The crazy facts campaign is at third place with 576 first touches and the search campaign is a distant last with only 169 first touches.

campaign	total_first_touches
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	169

## 2.2 How many last touches is each campaign responsible for?

- The last touch refers to the last marketing channel that engaged a visitor back to a website, especially for conversion
- CoolTShirts campaigns show varying results for last touches by distinct users that could be summarized into four brackets:
  1. The successful: weekly newsletter and retargeting ad campaigns with 447 and 443 last touches respectively
  2. The above average: retargetting and getting to know CoolTShirts campaigns with 245 and 232 last touches respectively
  3. The below average: crazy facts, interview with the founder and paid search campaigns scoring at 190, 184 and 178 last touches respectively.
  4. The bad: CoolTShirts search campaign scored only 60 last touches

campaign	total_last_touches
weekly-newsletter	447
retargetting-ad	443
retargetting-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



## 2.3 How many visitors make a purchase?

- A total of 361 distinct visitors made a purchase and became customers
- A total of 1979 distinct users visited the website which means that the campaigns converted 18.24% of them

total_customers	total_visitors
361	1979

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

- The breakdown by campaign is summarized in the table, confirming the most successful campaigns for last touches to be the weekly newsletter and the retargeting ad which accounted for 115 and 113 of the total 361 customers respectively
- Following at 54 and 52 the retargeting campaign and the paid search respectively
- At the bottom, the least performing in terms of lead to customer conversion with less than 10 customers each: getting to know CoolTShirts, crazy facts, interview with the founder and CoolTShirts search

campaign	total_last_touch_customers
weekly-newsletter	115
retargeting-ad	113
retargeting-campaign	54
paid-search	52
getting-to-know-cool-tshirts	9
ten-crazy-cool-tshirts-facts	9
interview-with-cool-tshirts-founder	7
cool-tshirts-search	2

## 2.5 What is the typical user journey?

(1 / 2)

- Customer journey focuses on the experience over time of the users with a brand or product through stages like awareness, familiarity, consideration, purchase and loyalty, but it is not a linear process and a user can have multiple touch points on each phase, skip some of them or leave at any of them.
- The table shows the flow of non distinct users through the pages by campaign

campaign	landing_page	shopping_cart	checkout	purchase
cool-tshirts-search	171	133	7	2
getting-to-know-cool-tshirts	617	682	41	9
interview-with-cool-tshirts-founder	625	515	31	7
paid-search	0	0	179	52
retargeting-ad	0	0	445	113
retargeting-campaign	0	0	246	54
ten-crazy-cool-tshirts-facts	587	570	32	9
weekly-newsletter	0	0	450	115

## 2.5 What is the typical user journey?

(2 / 2)

- The table shows sample journeys by 4 visitors
- Visitor 10162 converted with three campaigns
- Visitor 10400 did not convert despite being retargetted
- Visitor 99933 converted with 2 campaigns
- Visitor 99990 was engaged by 1 campaign but left before checkout

user_id	campaign	landing_page	shopping_cart	checkout	purchase
10162	getting-to-know-cool-tshirts	1	0	0	0
10162	ten-crazy-cool-tshirts-facts	0	1	0	0
10162	weekly-newsletter	0	0	1	1
10400	retargetting-campaign	0	0	1	0
10400	ten-crazy-cool-tshirts-facts	1	1	0	0
99933	getting-to-know-cool-tshirts	1	1	0	0
99933	weekly-newsletter	0	0	1	1
99990	interview-with-cool-tshirts-founder	1	1	0	0

### **3. Optimize the campaign budget**

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

- From the summary table of first and last touches and last touch conversions by campaign, CoolTShirts should reinvest in both the top first touch and last touch with high conversion rate performers because visitors must first be directed to the website and from there led to conversion

- Top first touch campaign to repeat:
  - Getting-to-know-cool-tshirts (612)
  - Interview-with-cool-tshirts-founder (622)

- Top last touch campaign with high conversion rate to repeat:
  - Weekly-newsletter (447 / 115)
  - Retargeting-ad (443 / 113)
  - Paid-search (178 / 52)

campaign	total_first_touches	total_last_touches	total_last_touch_conversions	Conversion ratio last touch
<a href="#">weekly-newsletter</a>	-	447	115	0.26
<a href="#">retargeting-ad</a>	-	443	113	0.25
retargeting-campaign	-	245	54	0.22
<a href="#">getting-to-know-cool-tshirts</a>	612	232	9	0.04
ten-crazy-cool-tshirts-facts	576	190	9	0.05
<a href="#">interview-with-cool-tshirts-founder</a>	622	184	7	0.04
<a href="#">paid-search</a>	-	178	52	0.29
cool-tshirts-search	169	60	2	0.03