



# CoolTshirts.com

Learn SQL from Scratch

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# **1. Get Familiar with CoolTShirts**

# 1.1 Campaigns & Sources

How many campaigns and sources does CoolTShirts use?

- 8 campaigns
- 6 sources

Which source is used for each campaign?

Utm_campaign	Utm_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

```
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;
```

## 1.2 Campaigns & Sources

What pages are on the CoolTShirts website?

page_name
landing_page
shopping_cart
checkout
purchase

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

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

## 2.1 Campaign First-Touches

How many first touches is each campaign responsible for?

user_id	first_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
99684	2018-01-13 13:20:49	google	cool-tshirts-search	169
99933	2018-01-25 00:04:39	nytimes	getting-to-know-cool-tshirts	612
99990	2018-01-13 23:30:09	medium	interview-with-cool-tshirts-founder	622
99765	2018-01-04 05:59:46	buzzfeed	ten-crazy-cool-tshirts-facts	576

```
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(utm_campaign)  
FROM first_touch ft  
JOIN page_visits pv  
  ON ft.user_id = pv.user_id  
  AND ft.first_touch_at = pv.timestamp  
GROUP BY utm_campaign;
```

## 2.2 Campaign Last-Touches

How many last touches is each campaign responsible for?

user_id	last_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
99344	2018-01-18 21:36:32	google	cool-tshirts-search	60
99589	2018-01-15 04:55:43	nytimes	getting-to-know-cool-tshirts	232
99838	2018-01-02 07:40:34	medium	interview-with-cool-tshirts-founder	184
98840	2018-01-10 04:58:48	google	paid-search	178
99928	2018-01-24 05:26:09	facebook	retargetting-ad	443
99990	2018-01-16 11:35:09	email	retargetting-campaign	245
99765	2018-01-04 05:59:47	buzzfeed	ten-crazy-cool-tshirts-facts	190
99933	2018-01-26 06:18:39	email	weekly-newsletter	447

```
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(utm_campaign)  
FROM last_touch lt  
JOIN page_visits pv  
  ON lt.user_id = pv.user_id  
  AND lt.last_touch_at = pv.timestamp  
GROUP BY utm_campaign;
```



## 2.3 Visit Purchases

How many visitors make a purchase?

*361 visitors make a purchase*

```
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(utm_campaign)  
FROM last_touch ft  
JOIN page_visits pv  
    ON lt.user_id = pv.user_id  
   AND lt.last_touch_at = pv.timestamp  
GROUP BY utm_campaign;  
  
SELECT COUNT(DISTINCT user_id)  
FROM page_visits  
WHERE page_name = '4 - purchase';
```

## 2.4 Purchase Page Last Touches

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

user_id	last_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
95650	2018-01-18 00:25:00	google	cool-tshirts-search	2
92172	2018-01-16 15:15:29	nytimes	getting-to-know-cool-tshirts	9
83547	2018-01-10 18:20:21	medium	interview-with-cool-tshirts-founder	7
94567	2018-01-19 16:37:58	google	paid-search	52
99897	2018-01-06 09:41:19	facebook	retargetting-ad	113
99285	2018-01-24 09:00:58	email	retargetting-campaign	54
98651	2018-01-15 04:17:36	buzzfeed	ten-crazy-cool-tshirts-facts	9
99933	2018-01-26 06:18:39	email	weekly-newsletter	115

```
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(utm_campaign)  
FROM last_touch lt  
JOIN page_visits pv  
  ON lt.user_id = pv.user_id  
  AND lt.last_touch_at = pv.timestamp  
GROUP BY utm_campaign;
```

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

## 3.1 Best Campaigns for First Touches

The highlighted data below illustrates the best campaigns for leading customers to their first initial experience with CoolTShirts.com

user_id	first_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
99684	2018-01-13 13:20:49	google	cool-tshirts-search	169
99933	2018-01-25 00:04:39	nytimes	getting-to-know-cool-tshirts	612
99990	2018-01-13 23:30:09	medium	interview-with-cool-tshirts-founder	622
99765	2018-01-04 05:59:46	buzzfeed	ten-crazy-cool-tshirts-facts	576

## 3.2 Best Campaigns for Bringing Customers Back

The following data illustrates that the Weekly Newsletter and the Retargeting Ad are the best campaigns for bringing customers back to CoolTShirts.com

user_id	last_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
99344	2018-01-18 21:36:32	google	cool-tshirts-search	60
99589	2018-01-15 04:55:43	nytimes	getting-to-know-cool-tshirts	232
99838	2018-01-02 07:40:34	medium	interview-with-cool-tshirts-founder	184
98840	2018-01-10 04:58:48	google	paid-search	178
99928	2018-01-24 05:26:09	facebook	retargeting-ad	443
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99765	2018-01-04 05:59:47	buzzfeed	ten-crazy-cool-tshirts-facts	190
99933	2018-01-26 06:18:39	email	weekly-newsletter	447

## 3.3 Best Campaigns for Bringing Customers to Follow-Through with Purchases

As stated in the previous slide, the Weekly Newsletter and the Retargeting Ad are the best campaigns for bringing customers back to CoolTShirts.com. The data below shows that it is also attributed to leading customers back to complete their purchases.

user_id	last_touch_at	utm_source	utm_campaign	COUNT(utm_campaign)
95650	2018-01-18 00:25:00	google	cool-tshirts-search	2
92172	2018-01-16 15:15:29	nytimes	getting-to-know-cool-tshirts	9
83547	2018-01-10 18:20:21	medium	interview-with-cool-tshirts-founder	7
94567	2018-01-19 16:37:58	google	paid-search	52
99897	2018-01-06 09:41:19	facebook	retargeting-ad	113
99285	2018-01-24 09:00:58	email	retargeting-campaign	54
98651	2018-01-15 04:17:36	buzzfeed	ten-crazy-cool-tshirts-facts	9
99933	2018-01-26 06:18:39	email	weekly-newsletter	115

## 3.4 Campaign Re-Investment Summary

The getting to Know Cool Tshirts article in the NYTime and the Interview with CoolTShirts Founder, and the Ten Crazy Cool Tshirts Facts on BuzzFeed have brought the most customers to Cool Tshirts for their first experience. The retargeting ad on Facebook and the emailed weekly newsletter have brought the most customers back to CoolTshirts and ultimately lead them to completing their purchases. This is the reason I have chosen these campaigns as the top 5 campaigns for re-investment

Utm_campaign	Utm_source
getting-to-know-cool-tshirts	nytimes
weekly-newsletter	email
ten-crazy-cool-tshirts-facts	buzzfeed
retargeting-ad	facebook
interview-with-cool-tshirts-founder	medium