



# First- and Last- Touch Attribution with CoolTShirts.com

Learn SQL from Scratch

Laura Palomo López

19/07/2018

1. Get familiar with CoolTShirts
2. What is the user journey?
3. Optimize the campaign budget

# **1. Get familiar with CoolTshirts**

The BBDD 'page\_visits' records each visit that CoolTshirts receives. This type of database is used to know if, for example, the different marketing campaigns of a Company with useful purposes.

In this case, the BBDD is formed by 5 columns:

- 1) page\_name → Column with 'text' format. This column takes 4 values that refer to the different parts of the existing 'CoolTshirts' page.
- 2) Timestamp → Column with 'text' format. This column records the time at which the 'CoolTshirts' page is visited.
- 3) User\_id → Column with 'integer' format. This column identifies the users.
- 4) Utm\_campaign → Column with 'text' format. This column is related to the marketing campaign that helps to make the user Access the 'CoolTshirts' page.
- 5) Utm\_source → Column with 'text' format. This column indicates the broadcast medium of the different campaigns.

## 1.1. How many campaigns and sources does CoolTShirts use? Which source is used for each campaign?

CoolTshirts use 6 sources. The sources are:

- NY Times
- Email
- BuzzFeed
- Facebook
- Medium
- Google

CoolTShirts use 8 campaigns that are:

- Getting to know cool tshirts
- Weekly newsletter
- Ten crazy cool Tshirts facts
- Retargeting campaign
- Retargeting ad
- Interview with cool tshirts founder
- Paid search
- Cool tshirts search

### QUERYS

-----n sources

```
select count (distinct (utm_source))  
from page_visits;
```

```
select distinct utm_source  
from page_visits;
```

### QUERYS

-----n campaigns

```
select distinct utm_campaign  
from page_visits;
```

```
select count (distinct (utm_campaign))  
from page_visits;
```

Each campaign is related to a source. The sources that most campaigns direct your child to Google and email, direct 2 campaigns each. The distribution of campaigns are:

Source	Campaign
NY Times	Getting to know cool tshirts
Google	Cool tshirts search
Google	Paid search
Medium	Interview with cool tshirts founder
Facebook	Retargetting ad
Email	Retargetting campaign
Email	Weekly newsletter
Buzzfeed	Ten crazy cool Tshirts facts

## QUERYs

-----relationship campaigns-sources

```
select utm_campaign, utm_source, count(*)  
from page_visits  
group by 1,2  
order by 1,2;
```

## QUERYs

-----different pages

```
select distinct page_name  
from page_visits  
order by page_name;
```

On their webside they have four pages:

- 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?

There are 4 campaigns that have first touches. The first touches of each campaign are:

Campaign	Touches	Campaign	Touches
Cool tshirts search	169	Interview with cool tshirts founder	622
Getting to know cool tshirts	612	Ten crazy cool Tshirts facts	576

### QUERYS

-----first touches

```
WITH first_touch AS (  
  SELECT user_id,  
         MIN(timestamp) as  
first_touch_at  
  FROM page_visits  
  GROUP BY user_id)  
SELECT  
  
          pv.utm_campaign,  
          count(*)  
FROM first_touch ft  
JOIN page_visits pv  
  ON ft.user_id = pv.user_id  
  AND ft.first_touch_at =  
pv.timestamp  
group by pv.utm_campaign;
```



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

All campaigns have some final touch.

The campaigns that have the latest touches are “Weekly newsletter” and “Retargeting ad”.

Campaign	Touches
Getting to know cool tshirts	232
Cool tshirts search	60
Paid search	178
Interview with cool tshirts founder	184
Retargeting ad	443
Retargeting campaign	245
Weekly newsletter	447
Ten crazy cool Tshirts facts	190

### QUERYS

-----last touches

```
WITH last_touch AS (  
    SELECT user_id,  
           max(timestamp) as last_touch_at  
    FROM page_visits  
    GROUP BY user_id)  
SELECT  
    pv.utm_campaign,  
    count(*)  
FROM last_touch lt  
JOIN page_visits pv  
    ON lt.user_id = pv.user_id  
    AND lt.last_touch_at = pv.timestamp  
group by pv.utm_campaign;
```

## 2.3. How many visitors make a purchase?

To see the number of users who make a purchase it is necessary to know how many arrive at the page 'Purchase'

The number of users who make a purchase is 361.

### QUERYS

```
select count(distinct user_id) as user
from page_visits
where page_name='4 - purchase';
```

```
select distinct user_id as user
from page_visits
where page_name='4 - purchase'
```

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

There are 358 users who make a purchase as final touch. The distribution of purchases by campaigns is:

### QUERYS

```
WITH last_touch AS (
  SELECT user_id,
         max(timestamp) as last_touch_at
  FROM page_visits
  GROUP BY user_id)
SELECT
```

```
        pv.utm_campaign,
count(*)
FROM last_touch lt
JOIN page_visits pv
  ON lt.user_id = pv.user_id
 AND lt.last_touch_at = pv.timestamp
where pv.page_name='4 - purchase'
group by pv.utm_campaign;
```

Campaign	Number os purchase
Getting to know cool tshirts	9
Cool tshirts search	2
Paid search	52
Interview with cool tshirts founder	7
Retargetting ad	112
Retargetting campaign	53
Weekly newsletter	114
Ten crazy cool Tshirts facts	9

**The best campaigns is “Weekly newsletter”**

## 2.5. What is the typical user journey?

The database records 5000 entries from 1979 different users.

Of these user, only 18% make a purchase.

The 95% of users add an ítem to their purchase and 72% arrive at the purchase page. It could be that the typical behavior is to add an ítem to your basket.

% langing page	% shopping cart	% checkout	% purchasse
100	95	72	18

```
--numero de visitas  
select count(*)  
from page_visits;
```

```
--numero de usuarios diferentes
```

```
select count(distinct user_id)  
from page_visits;
```

```
-----Aqui vemos que porcentaje de usuarios llega al final de la compra  
with conteo as(  
  select count(distinct user_id) as usuario,  
         count(distinct case  
           when page_name='1 - landing_page' then user_id end) as  
         landing_page,  
         count(distinct case  
           when page_name='2 - shopping_cart' then user_id end) as  
         shopping_cart,  
  
         count(distinct case  
           when page_name='3 - checkout' then user_id end) as checkout,  
         count(distinct case  
           when page_name='4 - purchase' then user_id end) as purchase  
  from page_visits  
)  
  
select  
  round((landing_page/(1.0 * usuario)) *100) as '%_langing_page',  
  round((shopping_cart/(1.0 * usuario)) *100) as '%_shopping_cart',  
  round((checkout/(1.0 * usuario)) *100) as '%_checkout',  
  round((purchase/(1.0 * usuario)) *100 ) as '%_purchase'  
from conteo  
;
```

# **3. Optimize the campaign budget**

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

In Marketing campaigns it is important to know through which campaign the user accesses the page and with which the purchase ends.

CoolTShirts there are currently 8 campaigns.

The campaign with which you Access the page is with which the user knows the web page. In the example, the first touch campaigns are:

Campaign	Touches	Campaign	Touches
Cool tshirts search	169	Interview with cool tshirts founder	622
Getting to know cool tshirts	612	Ten crazy cool Tshirts facts	576

As the Company has to invest in 5 campaigns, the campaigns of the first touch should be left, since they are the only ones that seem to work with the users.

Of the campaigns with the last touch, three should be maintained, those with the greatest presence of last touches.

Therefore, the Company must reinvest in the companies:

- Cool tshirts search
- Getting to know cool tshirts
- Weekly newsletter
- Retargeting ad
- Retargeting campaign

Campaign	Touches
Getting to know cool tshirts	232
Cool tshirts search	60
Paid search	178
Interview with cool tshirts founder	184
Retargeting ad	443
Retargeting campaign	245
Weekly newsletter	447
Ten crazy cool Tshirts facts	190