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First- and Last- Touch Attribution with CoolTShirts.com
Learn SQL from Scratch
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Get familiar with CoolTshirts

1.1 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

CoolTshirts use 8 individual campaigns and 6 individual sources. The utm_source allows CoolTshirts to track the source of the visit to the website(i.e nytimes, google, buzzfeed, email comm, or medium) where utm_campaign is used to track the campaign. The relation between the campaigns and sources and can be seen in the table on the right. The most used source is Google.

The difference between utm_campaign and utm_source is that the utm_source parameters identify the advertiser, site, publication that is sending the traffic where utm_campaign identify the individual campaign name.

Campaigns - 8	Sources - 6
cool-tshirts-search	nytimes
getting-to-know-cool-tshirts	email
interview-with-cool-tshirts-founder	buzzfeed
paid-search	email
retargetting-ad	facebook
retargetting-campaign	medium
ten-crazy-cool-tshirts-facts	google
weekly-newsletter	google

Get familiar with CoolThirts

1.2 What pages are on their website?

To identify distinct pages I used the SELECT DISTINCT statement.

```
select distinct page_name
from page_visits;
```

Website pages
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

What is the user journey?

1. How many first touches is each campaign responsible for?

The query to count first touches per campaign is displayed on the right.

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

```
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,
      ft_attr.utm_campaign,
      COUNT(*)
FROM ft_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

What is the user journey?

2. How many last touches is each campaign responsible for?

The query to count last touches per campaign is displayed on the right.

utm_campaign	Count
weekly-newsletter	477
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

```
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,
       lt_attr.utm_campaign,
       COUNT(*) as 'TOTAL_LT'
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

What is the user journey?

3. How many visitors made a purchase?

361 visitors made a purchase. The query that led to this result is displayed on the right.

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

What is the user journey?

4.How many last touches on the purchase page is each campaign responsible for?
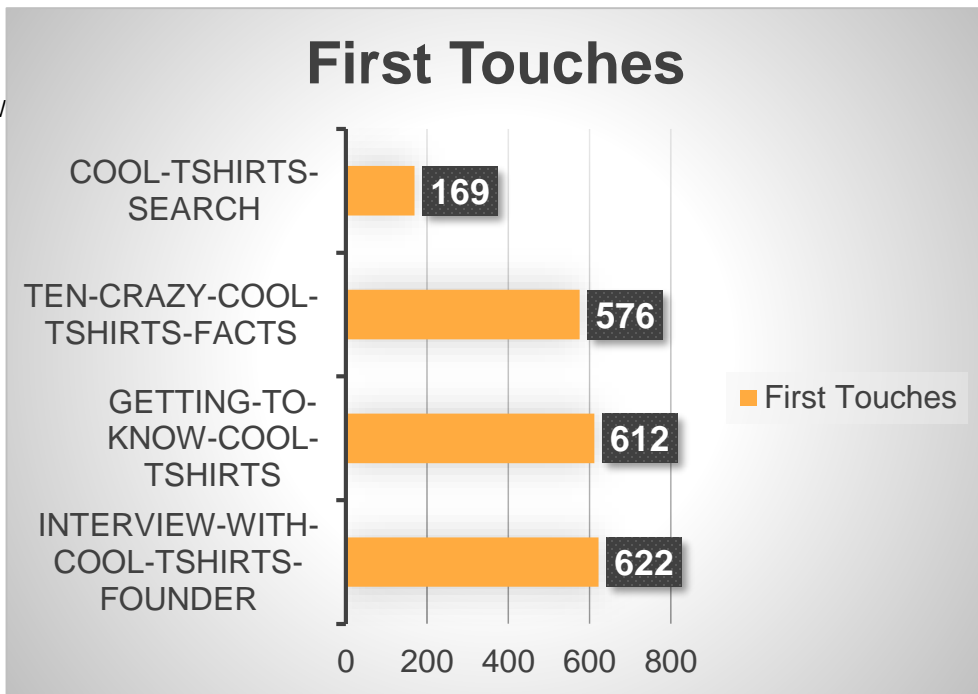The query to count last touches on the purchase page is displayed on the right.

utm_campaign	Count
weekly-newsletter	115
retargetting-ad	113
retargetting-campaign	54
Paid-search	52
ten-crazy-cool-tshirts-facts	9
Getting-to-know-cool-tshirts	9
Interview-with-cool-tshirts-founder	7
Cool-tshirts-search	2

```
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,
      lt_attr.utm_campaign,
      COUNT(*)
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

What is the user journey?
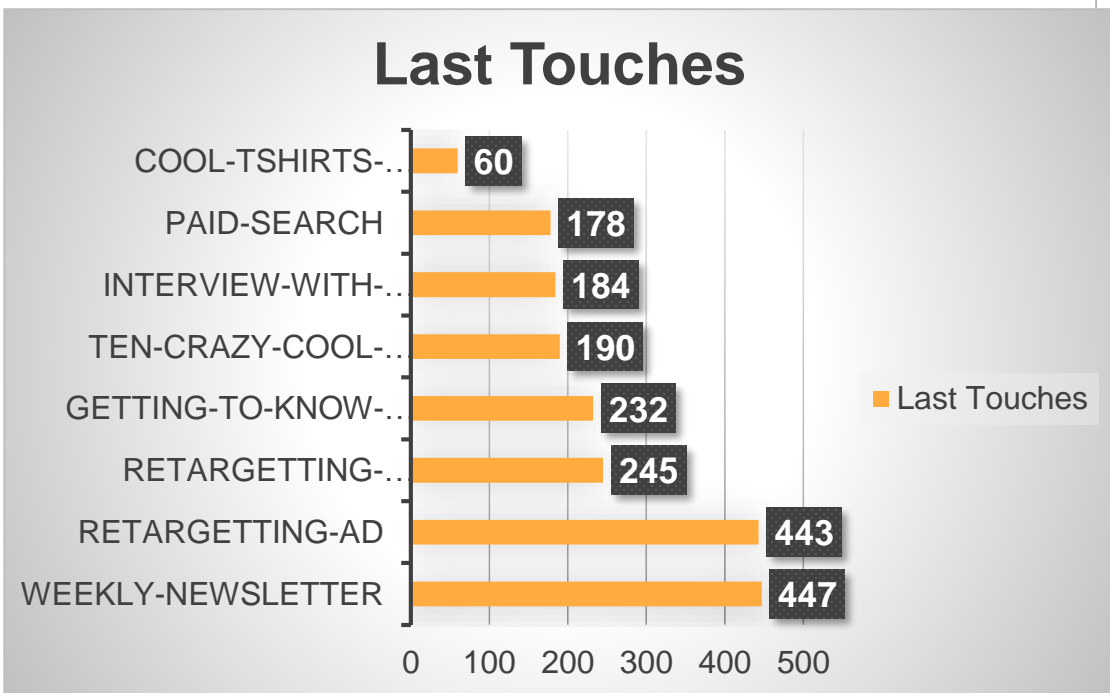
What is the typical user journey?

We can observe that Interview with CoolTshirts Founder drives most traffic to the website, followed by Getting to Know Cool Tshirts.

First Touches

Category	First Touches
COOL-TSHIRTS-SEARCH	169
TEN-CRAZY-COOL-TSHIRTS-FACTS	576
GETTING-TO-KNOW-COOL-TSHIRTS	612
INTERVIEW-WITH-COOL-TSHIRTS-FOUNDER	622

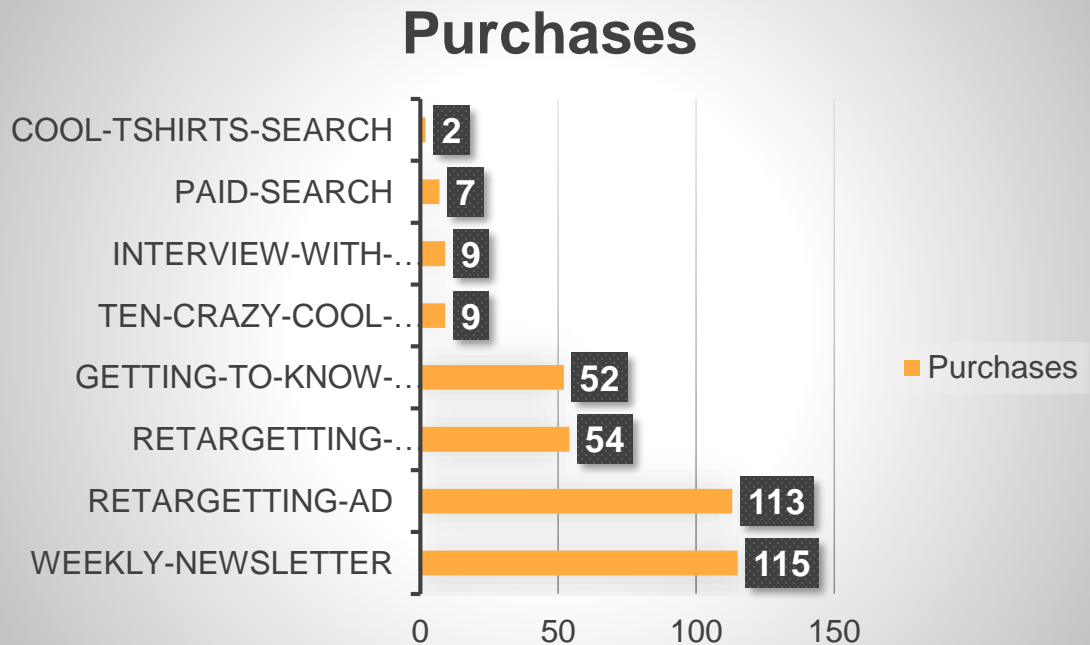0   200   400   600   800

What is the user journey?

What is the typical user journey?

We can observe from this chart the last touches are
Actually attributed mostly to retargeting campaigns.

Last Touches

Category	Last Touches
COOL-TSHIRTS-...	60
PAID-SEARCH	178
INTERVIEW-WITH-...	184
TEN-CRAZY-COOL-...	190
GETTING-TO-KNOW-...	232
RETARGETTING-...	245
RETARGETTING-AD	443
WEEKLY-NEWSLETTER	447

What is the user journey?

What is the typical user journey?

And in the purchases chart we can observe that most sales come through the retargeting campaigns.

Purchases

Channel	Purchases
COOL-TSHIRTS-SEARCH	2
PAID-SEARCH	7
INTERVIEW-WITH-...	9
TEN-CRAZY-COOL-...	9
GETTING-TO-KNOW-...	52
RETARGETTING-...	54
RETARGETTING-AD	113
WEEKLY-NEWSLETTER	115

What is the user journey?

What is the typical user journey?

And in the purchases chart we can observe that most sales come through the retargeting campaigns.
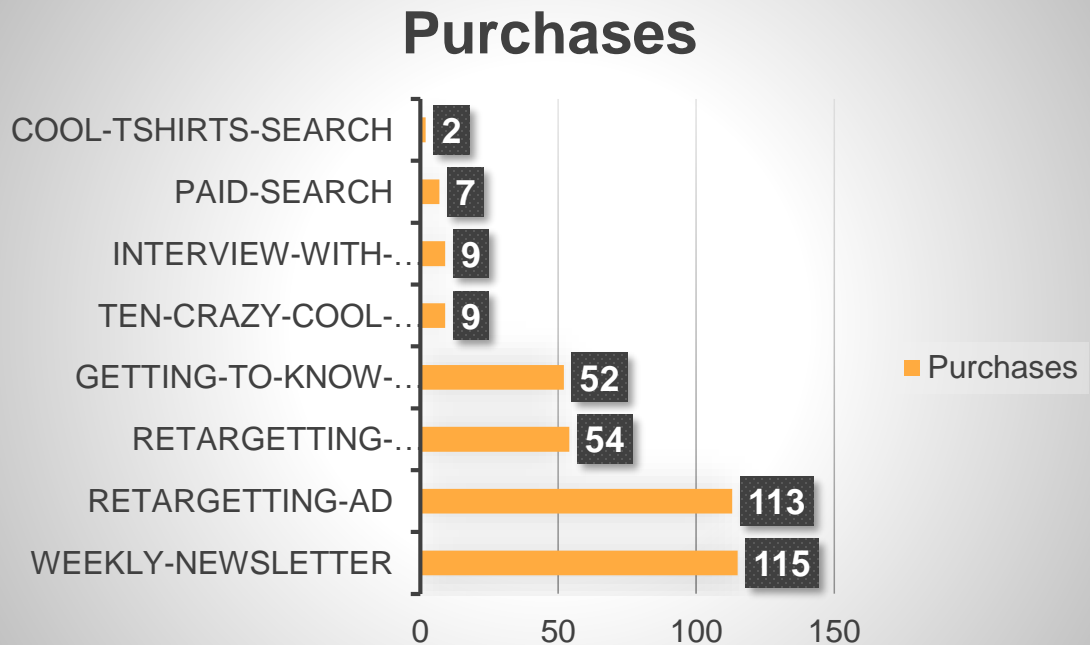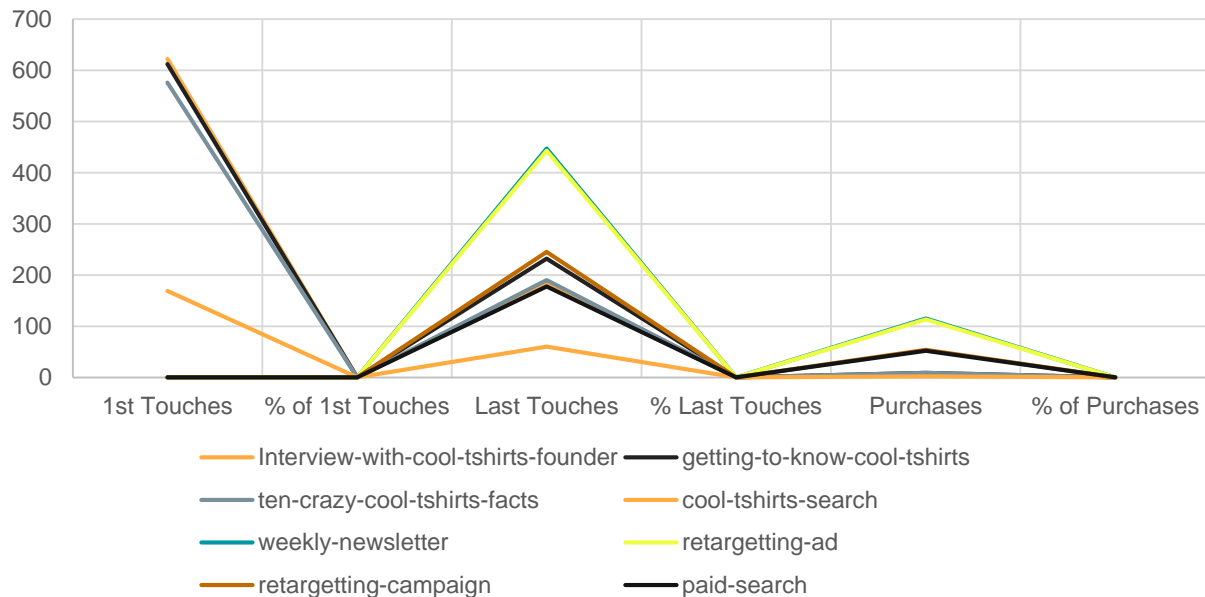
Optimize the campaign budget

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

Campaings	1st Touches	% of 1st Touches	Last Touches	% Last Touches	Purchases	% of Purchases	
Interview-with-cool-tshirts-founder	622	31.43%	184	9.30%	7	1.94%	
getting-to-know-cool-tshirts	612	30.92%	232	11.72%	9	2.49%	
ten-crazy-cool-tshirts-facts	576	29.11%	190	9.60%	9	2.49%	
cool-tshirts-search	169	8.54%	60	3.03%	2	0.55%	
weekly-newsletter	0	0.00%	447	22.59%	115	31.86%	
retargetting-ad	0	0.00%	443	22.39%	113	31.30%	
retargetting-campaign	0	0.00%	245	12.38%	54	14.96%	
paid-search	0	0.00%	178	8.99%	52	14.40%	
	1979		1979		361		Total

Optimize the campaign budget

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

Optimize the campaign budget

Optimize the campaign budget

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

The chart in the previous slide shows that the Interview With Cool Tshirts Founder, Getting To Know Cool Tshirts and Ten Crazy Cool Tshirts Facts drive 91% of First Touches and should be continued.

The Weekly Newsletter and Retargetting Campaign should also be continued as they represent 63% of sales.