



COOLTSHIRTS

Learn SQL from Scratch

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Table of Contents

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

1. Getting Familiar With CoolTShirts

1.1 CoolTShirts – Campaigns and Sources

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

CoolTShirts has 8 distinct campaigns and 6 distinct sources. The different campaigns and their sources are listed in the table adjacent.

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 CoolTShirts - Pages

What pages are on the CoolTShirts website?

CoolTShirts has 4 pages – landing page, shopping cart, checkout, and purchase.

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

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

2. What is the user journey?

2.1 User Journey – First Touches

How many first touches is each campaign responsible for?

The number of first touches each campaign is responsible for can be found in the adjacent chart.

utm_campaign	first_touch_at
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_visitsgroup by 1),  
  ft_at AS(  
    SELECT ft.user_id, ft.first_touch_at,  
      pv.utm_campaign, pv.utm_source  
    FROM first_touch AS 'ft'  
    JOIN page_visits AS 'pv'  
    ON ft.user_id = pv.user_id  
    AND ft.first_touch_at = pv.timestamp)  
  SELECT utm_campaign, COUNT(first_touch_at)  
    AS 'first_touch_at'  
  FROM ft_at  
  GROUP BY 1  
  ORDER BY 2 DESC;
```

2.2 User Journey – Last Touches

How many first touches is each campaign responsible for?

The number of last touches each campaign is responsible for can be found in the adjacent chart.

utm_campaign	last_touch_at
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

```
WITH first_touch AS (  
  SELECT user_id, MIN(timestamp) AS  
    'first_touch_at'  
  FROM page_visitsgroup by 1),  
  ft_at AS(  
    SELECT ft.user_id, ft.first_touch_at,  
      pv.utm_campaign, pv.utm_source  
    FROM first_touch AS 'ft'  
    JOIN page_visits AS 'pv'  
    ON ft.user_id = pv.user_id  
    AND ft.first_touch_at = pv.timestamp)  
  SELECT utm_campaign, COUNT(first_touch_at)  
    AS 'first_touch_at'  
  FROM ft_at  
  GROUP BY 1  
  ORDER BY 2 DESC;
```


2.3 User Journey – Purchases

How many visitors make a purchase?

There are 361 visitors to the site that made a purchase. This was identified by finding how many people visited the “4 – purchase” page.

```
SELECT COUNT( DISTINCT user_id) AS  
  'visitors',  
  page_name  
FROM page_visits  
WHERE page_name = '4 - purchase';
```

1.4 User Journey – Last Touches: Purchase Page

How many first touches is each campaign responsible for?

The number of last touches each campaign is responsible for can be found in the adjacent chart.

utm_campaign	last_touch_ats_purchase
weekly-newsletter	115
retargetting-ad	113
retargetting-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

```
WITH last_touch AS (  
  SELECT user_id, MAX(timestamp) AS  
    'last_touch_at'  
  FROM page_visits  
  WHERE page_name = '4 - purchase'  
  GROUP BY 1),  
lt_at AS(  
  SELECT lt.user_id, lt.last_touch_at,  
    pv.utm_campaign, pv.utm_source  
  FROM last_touch AS 'lt'  
  JOIN page_visits AS 'pv'  
  ON lt.user_id = pv.user_id  
  AND lt.last_touch_at = pv.timestamp)  
SELECT utm_campaign, COUNT(last_touch_at) AS  
  'last_touch_ats_purchase'  
FROM lt_at  
GROUP BY 1  
ORDER BY 2 DESC;
```

2. Optimize the campaign budget

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

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

First Touch Attribution indicates the channel where leads are generating from.

Last Touch Attribution indicates the channel a lead went through just before converting.

Both the generation of leads and the conversion of those leads are important – must re-invest with a balance in mind.

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

The top two campaigns that drove first touch attribution were the interview-with-cool-tshirts-founder (source: medium) and getting-to-know-cool-tshirts (source: nytimes).

I would recommend re-investing in the PR/partnership campaigns that drove both of these articles on these websites.

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

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

The top two campaigns that drove last touch attribution were the weekly-newsletter and the retargeting-ad. They both have high last-touch-to-purchase ratios, with 25.7% and 25.5% respectively.

The highest ratio however is paid-search with 29%, even though it has the second lowest last touch attribution. This could mean that this channel is under utilized.

Paid-search: 29.2 %

Weekly-newsletter: 25.7%

Retargeting-ad: 25.5%

Retargeting-campaign: 22.0%

Ten-crazy-cool-tshirts-facts: 4.7%

getting-to-know-cool-tshirts: 3.9%

interview-with-cool-tshirts-founder: 3.8%

Cool-tshirts-search: 3.3%

utm_campaign	last_touch_atc
weekly-newsletter	447
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retargeting-campaign	245
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utm_campaign	last_touch_atc_purchase
weekly-newsletter	115
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cool-tshirts-search	2

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

Summary

I would recommend CoolTShirts re-invest in the following 5 campaigns.

1. Paid-search
2. Weekly-newsletter
3. Retargeting-ad
4. Interview-with-cool-tshirts-founder
5. Getting-to-know-cool-tshirts

Thank You.