



COOLTSHIRTS

Learn SQL from Scratch

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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 last 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
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

```
WITH last_touch AS (  
  SELECT user_id, MAX(timestamp) AS  
    'last_touch_at'  
  FROM page_visits  
  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'  
FROM lt_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';
```

2.4 User Journey – Last Touches: Purchase Page

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

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

utm_campaign	last_touch_at_purchase
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

```
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_at_purchase'  
FROM lt_at  
GROUP BY 1  
ORDER BY 2 DESC;
```

2.5 What is the typical user journey?

The typical user journey is to arrive at the site via an online article about the site/products, and then complete a purchase after visiting the site again via a remarketing tactic or weekly newsletter.

3. 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.

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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 means 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
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utm_campaign	last_touch_atc_purchase
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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.