



COOLTSHIRTS

Learn SQL from Scratch

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Question 1

QUESTION

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

ANSWER

CoolTshirts uses 8 campaigns and 6 sources.
Email is used for the weekly newsletter and re-targeting
Facebook is also used for re-targeting
The NY Times, BuzzFeed and Medium have what look to be article-based content marketing.
Google campaigns are paid search based.

```
SELECT COUNT(DISTINCT utm_campaign) AS 'Number of campaigns'
FROM page_visits;

SELECT COUNT(DISTINCT utm_source) AS 'Number of sources'
FROM page_visits;

SELECT DISTINCT utm_source,
               utm_campaign
FROM page_visits;
```

Number of campaigns	Number of sources
8	6

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

Question 2

QUESTION

What pages are on the CoolTShirts website?

ANSWER

The CoolTshirts website has four pages:

- Landing page
- Shopping cart
- Checkout
- Purchase

```
1  SELECT DISTINCT(page_name) AS 'Page Names'
2  FROM page_visits;
3
```

Page Names
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

Question 3

QUESTION

How many first touches is each campaign responsible for?

ANSWER

Only four campaigns were responsible for a first touch.
These are shown in the table below

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

```
1  WITH first_touch AS (  
2      SELECT user_id,  
3             MIN(timestamp) as first_touch_at  
4      FROM page_visits  
5      GROUP BY user_id  
6  ),  
7  ft_attr AS (  
8      SELECT ft.user_id,  
9             ft.first_touch_at,  
10            pv.utm_source,  
11            pv.utm_campaign  
12  FROM first_touch ft  
13  JOIN page_visits pv  
14      ON ft.user_id = pv.user_id  
15      AND ft.first_touch_at = pv.timestamp  
16  )  
17  
18  SELECT utm_campaign AS Campaign,  
19         utm_source AS Source,  
20         COUNT (*) AS Volume  
21  FROM ft_attr  
22  GROUP BY 1  
23  ORDER BY 3 DESC;
```

Question 4

QUESTION

How many last touches is each campaign responsible for?

ANSWER

All 8 campaigns were responsible for a last touch
Each are listed in the table below, with the volume of last touches they were responsible for.

Campaign	Last Touch Volume
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

```
1  WITH last_touch AS (  
2      SELECT user_id,  
3             MAX(timestamp) as last_touch_at  
4      FROM page_visits  
5      GROUP BY user_id  
6  ),  
7  lt_attr AS (  
8      SELECT lt.user_id,  
9             lt.last_touch_at,  
10            pv.utm_source,  
11            pv.utm_campaign  
12     FROM last_touch lt  
13     JOIN page_visits pv  
14         ON lt.user_id = pv.user_id  
15         AND lt.last_touch_at = pv.timestamp  
16  )  
17  
18  SELECT utm_campaign AS Campaign,  
19         COUNT (*) AS 'Last Touch Volume'  
20  FROM lt_attr  
21  GROUP BY 1  
22  ORDER BY 2 DESC;
```

Question 5 & 6

QUESTION

How many visitors make a purchase?

ANSWER

361 visitors to CoolTshirts.com make a purchase.

```
18 SELECT COUNT(DISTINCT user_id) AS Purchasers
19 FROM page_visits
20 WHERE page_name = '4 - purchase';
```

QUESTION

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

ANSWER

The table on the right shows last touches on the purchase page per campaign.

The weekly newsletter and re-targeting advert are both responsible for more than double the number of purchases than the next best performing campaign.

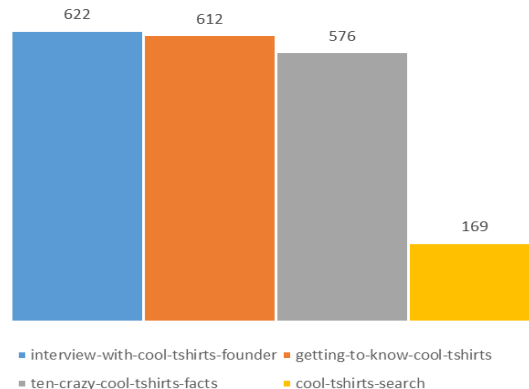
Campaign	Last Touch
weekly-newsletter	115
retargeting-ad	113
retargeting-campaign	54
paid-search	52
getting-to-know-cool-tshirts	9
ten-crazy-cool-tshirts-facts	9
interview-with-cool-tshirts-founder	7
cool-tshirts-search	2

```
WITH last_touch AS (
  SELECT user_id,
         MAX(timestamp) as last_touch_at
  FROM page_visits
  WHERE page_name = '4 - purchase'
  GROUP BY user_id
),
lt_attr AS (
  SELECT lt.user_id,
         lt.last_touch_at,
         pv.utm_source,
         pv.utm_campaign,
         pv.page_name
  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_campaign AS Campaign,
COUNT(*) AS 'Last Touch'
FROM lt_attr
GROUP BY 1
ORDER BY 2 DESC;
```

User Journey

First touch

- Visitors predominantly discover the site through stories published on Medium, New York Times and BuzzFeed.
- Over 1,800 visitors found the site through story content.
- Only 9% of visitors find the site through search.



Last touch

- The weekly newsletter and retargeting ad are successful in driving secondary engagement.
- Of a total of In total 606 visits to the 'story' content were the last touch.
- So we can say over 1,200 first visits generated through content did result in the user re-engaging at a later point (66%) – when prompted with another medium.

User Journey

Purchase

- The same campaigns that caused visitors to re-engage also generate the most purchases.
- Paid search has the highest conversion rate – this would need to be balanced against the cost per click.
- Very few of the visits through organic search result in a purchase.

Campaign	Purchase	Last touch	Conversion
weekly-newsletter	115	447	26%
retargetting-ad	113	443	26%
retargetting-campaign	54	245	22%
paid-search	52	178	29%
getting-to-know-cool-tshirts	9	232	4%
ten-crazy-cool-tshirts-facts	9	190	5%
interview-with-cool-tshirts-founder	7	184	4%
cool-tshirts-search	2	60	3%

Conversion - last touches into purchases



Optimise the budget

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

Cooltshirts.com should re-invest in campaigns that both:

- a) Drive initial engagement
- b) Drive the highest conversion to purchase

Initial engagement

As over 66% of first touches generated through story content lead to re-engagement, story content should be prioritised for re-investment. Recommendation is to invest in similar content in NY Times and Medium, as these channels drove the most initial engagement.

Conversion

Paid search may have resulted in lower volumes of last touch and purchases, but it generates the highest conversion, so should be further invested in.

As paid search doesn't generate any first touches I assume the targeting is only to people who have previously visited the site – therefore the reach could be extended to capture first time visitors.

The weekly newsletter and retargeting-ad also should continue as they also have a high conversion rate.

Optimise the budget

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

The five campaigns that should be re-invested in highlighted in green below.

Campaign	First Touch	Last touch	Purchase	Conversion
paid-search	0	178	52	29%
weekly-newsletter	0	447	115	26%
retargeting-ad	0	443	113	26%
retargeting-campaign	0	245	54	22%
ten-crazy-cool-tshirts-facts	576	190	9	5%
getting-to-know-cool-tshirts	612	232	9	4%
interview-with-cool-tshirts-founder	622	184	7	4%
cool-tshirts-search	169	60	2	3%

Highest
conversion

Highest first
touches