

CoolTShirts

LEARN SQL FROM SCRATCH

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1. Get Familiar with the company



1. Get Familiar with CoolTShirts

- How many campaigns and sources does CoolTShirts use and how are they related?
- 6 Sources & 8 Campaigns
- Which source is used for each campaign? See Results below.
- The Source details the different places where the contact came from e.g. Buzzfeed, email etc.
- The Campaign details the different advertisement campaigns e.g. weekly newsletter, paid search etc. Therefore, more than one campaign can come from the same source e.g. Paid Search and CoolTShirts Search were both via the same source (Google).

```
test.sqlite

SELECT COUNT(DISTINCT utm_source) AS 'Sources'
FROM page_visits;

SELECT COUNT(DISTINCT utm_campaign) AS 'Campaigns'
FROM page_visits;

SELECT DISTINCT utm_source AS 'Sources',
                utm_campaign AS 'Campaigns'
FROM page_visits;
```

Query Results	
Sources	
6	
Campaigns	
8	
Sources	Campaigns
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

1. Get Familiar with CoolTShirts contd.

What pages are on the CoolTShirts website?

There are four pages on the site: a landing page, shopping page, checkout and purchase page, as per Page Name table below.

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

```
test.sqlite

1  SELECT DISTINCT page_name AS 'Page Name'
2  FROM page_visits;
3
4
5
6
7
8
9  |
10
11
12
```

2. What is the user journey



What is the user journey?

How many first touches is each campaign responsible for?

According to the data, the first touches emanated from just four campaigns, as per table below.

Source	Campaign	No.
medium	Interview-with-cool-tshirts-founder	622
nytimes	Getting-to-know-cool-tshirts	612
buzzfeed	Ten-crazy-cool-tshirts-facts	576
google	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  SELECT ft.user_id,  
7         ft.first_touch_at,  
8         pv.utm_source AS 'Source',  
9         pv.utm_campaign AS 'Campaign',  
10        COUNT(utm_campaign) AS 'No.'  
11 FROM first_touch ft  
12 JOIN page_visits pv  
13     ON ft.user_id = pv.user_id  
14     AND ft.first_touch_at = pv.timestamp  
15 GROUP BY utm_campaign  
16 ORDER BY 5 DESC;  
17  
18  
19
```

What is the user journey? contd.

How many last touches is each campaign responsible for?

Source	Campaign	No.
email	weekly-newsletter	447
facebook	retargetting-ad	443
email	retargetting-campaign	245
nytimes	getting-to-know-cool-tshirts	232
buzzfeed	ten-crazy-cool-tshirt-facts	190
medium	interview-with-cool-tshirts-founder	184
google	paid-search	178
google	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  lt_attr AS (  
7      SELECT lt.user_id,  
8             lt.last_touch_at,  
9             pv.utm_source,  
10            pv.utm_campaign,  
11            pv.page_name  
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  SELECT lt_attr.utm_source AS 'Source',  
18         lt_attr.utm_campaign AS 'Campaign',  
19         COUNT(*) AS 'No.'  
20  FROM lt_attr  
21  GROUP BY 1, 2  
22  ORDER BY 3 DESC;
```


What is the user journey? contd.

How many visitors make a purchase?

According to the data, 361 visitors made a purchase. From a total of 1,979 visitors, this shows that over 18% of visitors made a purchase for the period.

```
1  SELECT COUNT(DISTINCT user_id) AS 'Buyers'
2  FROM page_visits
3  WHERE page_name = '4 - purchase';
```

Buyers
361

What is the user journey? contd.

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

Source	Campaign	No.
email	weekly-newsletter	115
facebook	retargetting-ad	113
email	retargetting-campaign	54
google	paid-search	52
buzzfeed	ten-crazy-cool-tshirts-facts	9
nytimes	getting-to-know-cool-tshirts	9
medium	interview-with-cool-tshirts-founder	7
google	cool-tshirts-search	2

```
1  WITH last_touch AS (  
2      SELECT user_id,  
3             MAX(timestamp) AS 'last_touch_at'  
4      FROM page_visits  
5      WHERE page_name = '4 - purchase'  
6      GROUP BY user_id),  
7  lt_attr AS (  
8      SELECT lt.user_id,  
9             lt.last_touch_at,  
10            pv.utm_source,  
11            pv.utm_campaign,  
12            pv.page_name  
13     FROM last_touch lt  
14     JOIN page_visits pv  
15         ON lt.user_id = pv.user_id  
16         AND lt.last_touch_at = pv.timestamp  
17  )  
18  SELECT lt_attr.utm_source AS 'Source',  
19         lt_attr.utm_campaign AS 'Campaign',  
20         COUNT(*) AS 'No.'  
21  FROM lt_attr  
22  GROUP BY 1, 2  
23  ORDER BY 3 DESC;
```

What is the typical user journey?

The typical user first visits the CoolTShirts site via one of the four campaigns highlighted in the first touch section:

- Interview-with-cool-tshirts-founder
- Getting-to-know-cool-tshirts
- Ten-crazy-cool-tshirts-facts
- Cool-tshirts-search

This data suggests that these novelty campaigns such as interviews with the founder are the main drivers of first touches on the site (almost 92%). Therefore the company should target these types of campaigns on a regular basis to generate awareness and steer potential buyers to the site.

Source	Campaign	No.
medium	Interview-with-cool-tshirts-founder	622
nytimes	Getting-to-know-cool-tshirts	612
buzzfeed	Ten-crazy-cool-tshirts-facts	576
google	Cool-tshirts-search	169

What is the typical user journey? contd.

In terms of last touches on the purchase page, however, we can see that the regular campaigns such as the weekly newsletter and retargeting ads and retargeting campaigns are linked with more purchases than the novelty campaigns.

Sources are also key here, with email (35%) and facebook (22%) driving a high proportion of the purchases.

Source	Campaign	No.
email	weekly-newsletter	447
facebook	retargeting-ad	443
email	retargeting-campaign	245
nytimes	getting-to-know-cool-tshirts	232
buzzfeed	ten-crazy-cool-tshirt-facts	190
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google	paid-search	178
google	cool-tshirts-search	60

3. Optimise the campaign budget



3. Optimise the Campaign Budget

- CoolTShirts can re-invest in 5 campaigns. As this investment is in 5 rather than the 8 existing campaigns, if additional funds are available, recommend further data analysis to drill down into the links between the first-touch and last-touch campaigns that are driving awareness and ultimately sales. Market research (e.g. Focus groups could also provide valuable information in this regard in order to fully understand the process).

On the basis of existing data:

- The top 3 novelty campaigns identified in the first touch piece of work should be re-invested in as they are the main drivers of getting potential buyers 'in the door' in the first place.
- Then the top 2 campaigns linked with actual purchases (weekly newsletter and retargeting ad campaigns) should also be re-invested in as the data indicates that they are driving more sales (over 63%) than the other campaigns combined.

3. Optimise the Campaign Budget

- On the basis of the data, the campaign budget can be optimised by investing in the following five campaigns:
 - Interview with CoolTSHirts Founder
 - Getting to Know CoolTShirts
 - Ten Crazy CoolTShirts Facts
 - Weekly Newsletter
 - Retargeting Campaign
-
- *Note: Recommend further data analysis to explore the links between the first-touch and last-touch behaviour of potential customers and market research to better understand buyer behaviour.*