

SQL Capstone CoolTShirts.com

Capstone Project Submitted by:

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08-25-18



1. Get familiar with the company.
 - 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**.
 - What pages are on their website?
2. What is the user journey?
 - How many first touches is each campaign responsible for?
 - How many last touches is each campaign responsible for?
 - How many visitors make a purchase?
 - How many last touches on the purchase page is each campaign responsible for?
 - What is the typical user journey?
3. Optimize the campaign budget
 - CoolTShirts can re-invest in 5 campaigns. Which should they pick and why?

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- GET FAMILIAR WITH COOLTSHIRTS
- WHAT IS THE USER JOURNEY?
- OPTIMIZE THE CAMPAIGN BUDGET

1. Get familiar with the company.

Campaign Count	Source Count
8	6
getting-to-know-cool-tshirts	nytimes
Weekly-newsletter	Email
Ten-crazy-cooltshirts-facts	Buzzfeed
Retargeting-campaign	Email
Retargeting-ad	facebook
Interview-with-cool-tshirt-founder	Medium
Paid-search	Google
Cool-tshirt-search	Google

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

- A source is like email or via a site where the campaign is shared, like google, facebook or a medium such as BuzzFeed or NYT.
- A campaign is a specific message designed to obtain a specific response from customers.
- A source can run several campaigns.
- The same campaign can be run across multiple sources.

```
1  --1. Count campaigns and sources, then match
2  -- get COUNT of campaigns
3  SELECT COUNT(DISTINCT utm_campaign) AS 'Campaign Count'
4  FROM page_visits;
5
6  --get COUNT of sources
7  SELECT COUNT(DISTINCT utm_source) AS 'Source Count'
8  FROM page_visits;
9
10 --list sources per campaign to show relationship
11 SELECT DISTINCT utm_campaign AS Campaigns,
12                 utm_source AS Sources
13 FROM page_visits;
```

1. Get familiar with the company.

What pages are on CoolTShirts Website?

- Find distinct values of page_name.

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

```
1  --2. find unique pages that are on website
2  SELECT DISTINCT page_name AS 'Page Names'
3  FROM page_visits;
```

2. What is the User Journey?

How many FIRST touches is each campaign responsible for?

- Identify the timestamps with the MIN date for each User.

Campaign	Count
Interview-with-cool-tshirts-fournder	622
Getting-to-know-cool-tshirts	612
Ten-crazy-cool-tshirts-facts	576
Cool-tshirts-search	169

```
1  -- 5. COUNT first touches per campaign
2  -- Create temp table that finds first touches by user id
3  WITH first_touch AS (
4      SELECT user_id,
5             MIN(timestamp) AS first_touch_at
6      FROM page_visits
7      GROUP BY user_id),
8  --Create 2nd temp table that adds source and
9  --campaign FROM page_visits and joins them on
10 --user id and timestamp
11 ft_attr AS (
12     SELECT ft.user_id,
13            ft.first_touch_at,
14            pv.utm_source,
15            pv.utm_campaign
16     FROM first_touch ft
17     JOIN page_visits pv
18         ON ft.user_id = pv.user_id
19         AND ft.first_touch_at = pv.timestamp
20 )
21 --SELECT and COUNT Rows WHERE first touch is
22 --associated with a campaign and source
23 SELECT ft_attr.utm_source AS Source,
24        ft_attr.utm_campaign AS Campaign,
25        COUNT(*) AS COUNT
26 FROM ft_attr
27 GROUP BY 1, 2
28 ORDER BY 3 DESC;
```

2. What is the User Journey?

How many visitors make a purchase?

- Visitor to customer = 18%
(361/1979)

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

- Use MAX timestamp where the page visited is the purchase page, this will show the sources and campaigns responsible for conversion from visitor to customer.

```
1 -- 7. COUNT DISTINCT users who made a purchase
2 SELECT COUNT(DISTINCT user_id) AS 'Customers that Purchase'
3 FROM page_visits
4 WHERE page_name = '4 - purchase';

1 -- 8. COUNT last touches per campaign that led to a purchase
2 -- Create temp table that finds LAST touches by user id
3 WITH last_touch AS (
4     SELECT user_id,
5           MAX(timestamp) AS last_touch_at
6     FROM page_visits
7 --add WHERE clause
8     WHERE page_name = '4 - purchase'
9     GROUP BY user_id),
10 --Create 2nd temp table that adds source and
11 --campaign FROM page_visits and joins them on
12 --user id and timestamp
13 ft_attr AS (
14     SELECT lt.user_id,
15           lt.last_touch_at,
16           pv.utm_source,
17           pv.utm_campaign
18     FROM last_touch lt
19     JOIN page_visits pv
20       ON lt.user_id = pv.user_id
21       AND lt.last_touch_at = pv.timestamp
22 )
23 --SELECT and COUNT Rows WHERE first touch is
24 --associated with a campaign and source
25 SELECT ft_attr.utm_source AS Source,
26       ft_attr.utm_campaign AS Campaign,
27       COUNT(*) AS COUNT
28 FROM ft_attr
29 GROUP BY 1, 2
30 ORDER BY 3 DESC;
```

Customers that Purchase

361

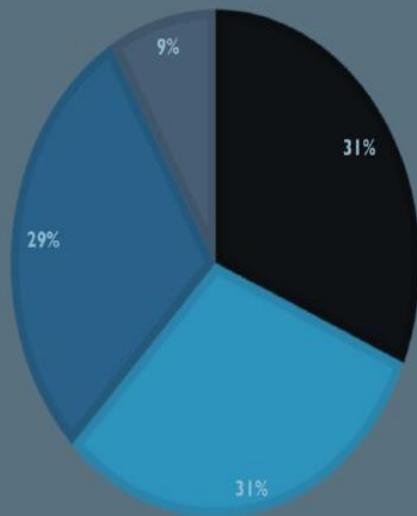
Source	Campaign	Count
Email	Weely-newletter	115
Facebook	Retargeting-ad	113
Email	Retargeting-campaign	54
Google	Paid-search	52
Buzzfeed	Ten-crazy-cool-tshirts-facts	9
Nytimes	Getting-to-know-cool-tshirts	9
Mdium	Interview-with-cool-tshirts-founder	7
Google	Cool-tshirts-search	2

2. What is the TYPICAL User Journey?

FIRST TOUCHES BY CAMPAIGN

91%

- interview-with-cool-tshirts-founder
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- cool-tshirts-search

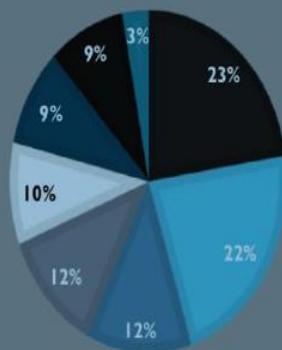


LAST TOUCHES BY CAMPAIGN

57%

- weekly-newsletter
- retargeting-ad
- retargeting-campaign
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- interview-with-cool-tshirts-founder
- paid-search
- cool-tshirts-search

31%



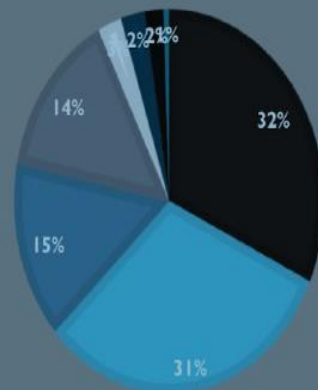
PURCHASES BY CAMPAIGN

78%

- weekly-newsletter
- retargeting-ad
- retargeting-campaign
- paid-search

6%

- ten-crazy-cool-tshirts-facts
- getting-to-know-cool-tshirts
- interview-with-cool-tshirts-founder
- cool-tshirts-search



3. Optimizing the Campaign Budget

- Weekly-newsletter is by far the best conversion to purchases and thusly should not be touched
- Organic search, while it brings in a considerable conversion, could be cut if need be.
- Paid search accounts for 14% of conversion to purchases, but only after customers have been introduced to story campaigns.

Campaign	1 st Touches	% 1 st Touches	Last Touches	% Last Touches	Purchases	% Purchases
Interview-with-cool-tshirts-founder	622	31%	184	9%	7	2%
Getting-to-know-cool-tshirts	612	31%	232	12%	9	2%
Ten-crazy-cool-tshirts-facts	576	29%	190	10%	9	2%
Cool-tshirts-search	169	9%	60	3%	2	1%
Weekly-newsletter	0	0%	447	23%	115	32%
Retargeting-ad	0	0%	443	22%	113	31%
Retargeting-campaign	0	0%	245	12%	54	15%
Paid-search	0	0%	178	9%	52	14%