



Add Campaign Analysis for CTS

Learn SQL from Scratch

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Current Campaigns & Sources:

1.1 Current Campaigns Summary:

Total Number of Campaigns
8
Current Campaigns
cool-tshirts-search
getting-to-know-cool-tshirts
interview-with-cool-tshirts-founder
paid-search
retargeting-ad
retargeting-campaign
ten-crazy-cool-tshirts-facts
weekly-newsletter

```
-- Query for distinct campaigns
SELECT COUNT(DISTINCT(utm_campaign)) As 'Total Number
of Campaigns'
FROM Page_visits;
```

```
SELECT DISTINCT(utm_campaign) AS 'Current Campaigns'
FROM Page_visits
ORDER BY 1;
```

1.2 Current Sources Summary:

Total Number of Sources
6
Current Sources
buzzfeed
email
facebook
google
medium
nytimes

```
-- Query for distinct sources
SELECT COUNT(DISTINCT(utm_source)) As 'Total Number of
Sources'
FROM Page_visits;

SELECT DISTINCT(utm_source) AS 'Current Sources'
FROM Page_visits
ORDER BY 1;
```

1.3 Campaign Sourcing

- Each ad campaign is currently sourced through a single sourcing company. The most used sources today are email and google.

```
-- Query distinct campaign and related sources
SELECT DISTINCT utm_campaign AS 'Current Campaigns',
utm_source AS 'Sources'
FROM Page_visits
ORDER BY 1;
```

```
--Query for sources and number of campaigns each
source currently supports
SELECT utm_source AS 'Sources',
COUNT(DISTINCT(utm_campaign)) AS 'Total Campaigns'
FROM Page_visits
GROUP BY 1
ORDER BY 2 DESC;
```

Current Campaigns	Sources
cool-tshirts-search	google
getting-to-know-cool-tshirts	nytimes
interview-with-cool-tshirts-founder	medium
paid-search	google
retargeting-ad	facebook
retargeting-campaign	email
ten-crazy-cool-tshirts-facts	buzzfeed
weekly-newsletter	email

Sources	Total Campaigns
email	2
google	2
buzzfeed	1
facebook	1
medium	1
nytimes	1

1.4 Current Company Pages:

Total Number of Pages
4
Current Pages
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

```
-- Query for distinct pages
SELECT COUNT(DISTINCT(page_name)) As 'Total Number of
Pages'
FROM Page_visits;
```

```
SELECT DISTINCT page_name AS 'Current Pages'
FROM Page_visits
ORDER BY 1;
```

User Journey:

2.1 First Touch Web Traffic - Supply Summary

- The ad campaign “interview-with-cool-tshirts-founder” has been the main source of first-touch traffic, closely followed by “getting-to-know-cool-tshirts” and “ten-crazy-cool-tshirts-facts” ad campaigns.
- On the other hand, the last four campaigns have not generated any first-touch traffic.

```
--Query for total first-touch traffic grouped by campaign
WITH first_touch AS (
    SELECT user_id,
           MIN(timestamp) as first_touch_at
    FROM page_visits
    GROUP BY user_id)
SELECT pv.utm_campaign As 'Campaign',
       COUNT(ft.user_id) As 'Total First Touches'
FROM page_visits pv
LEFT JOIN first_touch ft
    ON ft.user_id = pv.user_id
   AND ft.first_touch_at = pv.timestamp
GROUP BY 1
ORDER BY 2 DESC;
```

Campaign	Total First Touches
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	169
paid-search	0
retargetting-ad	0
retargetting-campaign	0
weekly-newsletter	0

2.2 Last Touch Web Traffic - Supply Summary

- The two main sources of last-touch traffic are “weekly-newsletter” and “retargeting-ad” with the worst performing “cool-tshirts-search” at a distant 60

```
--Query for total last-touch traffic grouped by campaign
WITH last_touch AS (
    SELECT user_id,
           MAX(timestamp) as last_touch_at
    FROM page_visits
    GROUP BY user_id)
SELECT pv.utm_campaign As 'Campaign',
       COUNT(lt.user_id) As 'Total Last Touches'
FROM page_visits pv
LEFT JOIN last_touch lt
    ON lt.user_id = pv.user_id
   AND lt.last_touch_at = pv.timestamp
GROUP BY 1
ORDER BY 2 DESC;
```

Campaign	Total Last Touches
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

2.3 Buying Visitors

Page	Buying Visitors
4 - purchase	361

```
-- Query for total buying visitors
SELECT page_name,
COUNT(DISTINCT(user_id)) AS 'Buying Visitors'
FROM page_visits
WHERE page_name = '4 - purchase';
```

2.4 Last Touch Web Traffic – Resulting in Purchase

- The two main sources of last-touch purchase traffic are “weekly-newsletter” and “retargeting-ad” (115 and 113 buying users respectively) with the worst performing “cool-tshirts-search” at a distant 2

```
--Query for total last-touch traffic resulting in a purchase
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)
SELECT pv.utm_campaign As 'Campaign',
       COUNT(lt.user_id) As 'Total Last Touches'
FROM page_visits pv
LEFT JOIN last_touch lt
  ON lt.user_id = pv.user_id
  AND lt.last_touch_at = pv.timestamp
GROUP BY 1
ORDER BY 2 DESC;
```

Campaign	Total Last Touches
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

Analysis based
recommendation:

4.1 Recommendation – Based on web traffic analysis

Based on the “first/last touch” web traffic analysis, the 5 ad campaign candidates for the additional investment are:

1. getting-to-know-cool-tshirts
2. interview-with-cool-tshirts-founder
3. ten-crazy-cool-tshirts-facts
4. weekly-newsletter
5. retargetting-ad

The decision was based on the fact that the first 3 campaigns far exceeded the performance of other campaigns with regards to generating first-touch traffic. While campaigns 4 and 5 have been the best sources of last touch traffic. With this in mind, it makes the most business sense to allocate the additional investment capital to those 5 campaigns.

Campaign	First Touches	Last Touches	Combined
getting-to-know-cool-tshirts	612	232	844
interview-with-cool-tshirts-founder	622	184	806
ten-crazy-cool-tshirts-facts	576	190	766
weekly-newsletter	0	447	447
retargetting-ad	0	443	443
retargetting-campaign	0	245	245
cool-tshirts-search	169	60	229
paid-search	0	178	178

4.2 Final Analysis Query (split into 2 columns)

```
--Final query which combines first touch with last touch  
summary and includes a column for total of first and last  
touch traffic
```

```
WITH
```

```
first_touch AS (  
    SELECT user_id,  
           MIN(timestamp) as first_touch_at  
    FROM page_visits  
    GROUP BY user_id  
)
```

```
last_touch AS (  
    SELECT user_id,  
           MAX(timestamp) as last_touch_at  
    FROM page_visits  
    GROUP BY user_id  
)
```

```
ft_table As (  
    SELECT pv.utm_campaign As 'Campaign',  
           COUNT(ft.user_id) As 'Total_First_Touches'  
    FROM page_visits pv  
    LEFT JOIN first_touch ft  
           ON ft.user_id = pv.user_id  
           AND ft.first_touch_at = pv.timestamp  
    GROUP BY 1  
    ORDER BY 2 DESC
```

```
),  
lt_table As (  
    SELECT pv.utm_campaign As 'Campaign',  
           COUNT(lt.user_id) As 'Total_Last_Touches'  
    FROM page_visits pv  
    LEFT JOIN last_touch lt  
           ON lt.user_id = pv.user_id  
           AND lt.last_touch_at = pv.timestamp  
    GROUP BY 1  
    ORDER BY 2 DESC  
)  
SELECT ft.Campaign As 'Campaign',  
       ft.Total_First_Touches As 'Total First  
Touches',  
       lt.Total_Last_Touches As 'Total Last Touches',  
       ft.Total_First_Touches + lt.Total_Last_Touches As  
'Combined'  
FROM ft_table ft  
JOIN lt_table lt  
     ON ft.Campaign = lt.Campaign  
ORDER BY 4 DESC;
```