Analyzing the Marketing Campaigns of CoolTShirts

Learn SQL from Scratch
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I. An Overview of CoolTShirts Marketing Campaigns

How and Where Does CoolTShirts Market?

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

Source
buzzfeed
email
facebook
google
medium
nytimes

- The table on the far left lists the CoolTShirt's **8** distinct marketing campaigns in Alphabetical order.
- CoolTShirt's eight (8) marketing campaigns are running on six (6) distinct sources.

```
SELECT DISTINCT utm_campaign as 'Campaign'
FROM page_visits
ORDER BY 1 ASC;
```

```
SELECT DISTINCT utm_source as 'Source'
FROM page_visits
ORDER BY 1 ASC;
```

What is the difference between a Campaign and a Source?

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

```
SELECT utm_campaign as 'Campaign',
       utm_source as 'Source'
FROM page_visits
GROUP BY 1, 2
ORDER BY 2;
```

- Campaign – a marketing campaign is a specific set of promotional activities.
- Source – a source is *the medium* through which a specific set of promotional activities is delivered to a prospective customer.

Please note: each campaign is associated with a single source, however each source may be associated with multiple campaigns. For example, the retargetting-campaign and the weekly-newsletter are delivered via the same source: email.

An Overview of CoolTShirts' Website Pages

- The query to the right identifies the four (4) distinct pages on the CoolTShirts website.
- Each time a user visits the CoolTshirts website, the page name that the user is visiting is captured as well as the marketing campaign and the marketing source that drove the user to visit that website page.
- When a user visits the purchase page we know that a sale has been made.

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

```
SELECT DISTINCT page_name as 'Page Name'
FROM page_visits;
```

II. Marketing Campaign Analysis

How many first touches does each campaign generate?

Total First Touches	Campaign	Source
622	interview-with-cool-tshirts-founder	medium
612	getting-to-know-cool-tshirts	nytimes
576	ten-crazy-cool-tshirts-facts	buzzfeed
169	cool-tshirts-search	google

```
WITH first_touch AS
      (SELECT user_id,
              min(timestamp) as first_time
       FROM page_visits
       GROUP BY user_id)
,attribution AS
      (SELECT ft.user_id, ft.first_time,
              pv.utm_campaign,
              pv.utm_source
       FROM first_touch ft
       JOIN page_visits pv
       ON ft.user_id = pv.user_id
       AND ft.first_time = pv.timestamp)
SELECT COUNT(*) as 'Total First Touches',
       attribution.utm_campaign as 'Campaign',
       attribution.utm_source as 'Source'
FROM attribution
GROUP BY 2, 3
ORDER BY 1 DESC;
```

- A first touch is the initial recorded time a distinct user visited the CoolTShirts website
- There are **1,979** total first touches attributed to distinct customers.
- Four (4) of the eight (8) marketing campaigns generated <u>all first touches</u>
- Additionally, the three highest ranking marketing campaigns make up 91% of all first touches.

How many last touches does each campaign generate?

Total Last Touches	Campaign	Source
447	weekly-newsletter	email
443	retargetting-ad	facebook
245	retargetting-campaign	email
232	getting-to-know-cool-tshirts	nytimes
190	ten-crazy-cool-tshirts-facts	buzzfeed
184	interview-with-cool-tshirts-founder	medium
178	paid-search	google
60	cool-tshirts-search	google

- A last touch is the final recorded time a distinct user visits the CoolTShirts website
- Each of the Eight (8) Marketing Campaigns is associated with at least one last touch

```
with last_touch as
(SELECT user_id
,max(timestamp) as first_time
FROM page_visits
GROUP BY user_id)
 ,attribution AS
(SELECT lt.user_id
            ,lt.first_time
            ,pv.utm_campaign
          ,pv.utm_source
FROM last_touch lt
JOIN page_visits pv
ON lt.user_id = pv.user_id
AND lt.first_time = pv.timestamp)
SELECT COUNT(*) as 'Total Last Touches'
            ,attribution.utm_campaign as 'campaign'
            ,attribution.utm_source as 'source'
FROM attribution
GROUP BY 2, 3
ORDER BY 1 DESC;
```

How Many Users Make a Purchase?

- Of the 1,979 visitors to the CoolTShirts website, only 361 make a purchase.
- The total conversion rate is 18%

```
SELECT COUNT(Distinct user_id) as 'Total Touches',
       page_name as 'Page Name'
FROM page_visits
GROUP BY 2;
```

Total Distinct Users	Page Name
1979	1 - landing_page
1881	2 - shopping_cart
1431	3 - checkout
361	4 - purchase

How many purchases does each campaign generate?

Total	Campaign	Source
115	weekly-newsletter	email
113	retargetting-ad	facebook
54	retargetting-campaign	email
52	paid-search	google
9	getting-to-know-cool-tshirts	nytimes
9	ten-crazy-cool-tshirts-facts	buzzfeed
7	interview-with-cool-tshirts-founder	medium
2	cool-tshirts-search	google

```
with last_touch as
     (SELECT user_id,
             max(timestamp) as last_time
      FROM page_visits
      WHERE page_name = '4 - purchase'
      GROUP BY user_id)
 ,attribution AS
              (SELECT lt.user_id,
                      lt.last_time,
                      pv.utm_campaign,
                      pv.utm_source
               FROM last_touch lt
               JOIN page_visits pv
                   ON lt.user_id = pv.user_id
                   AND lt.last_time = pv.timestamp)
SELECT COUNT(attribution.last_time) as 'Total',
       attribution.utm_campaign as 'Campaign',
       attribution.utm_source as 'Source'
FROM attribution
GROUP BY 2
ORDER BY 1 DESC;
```
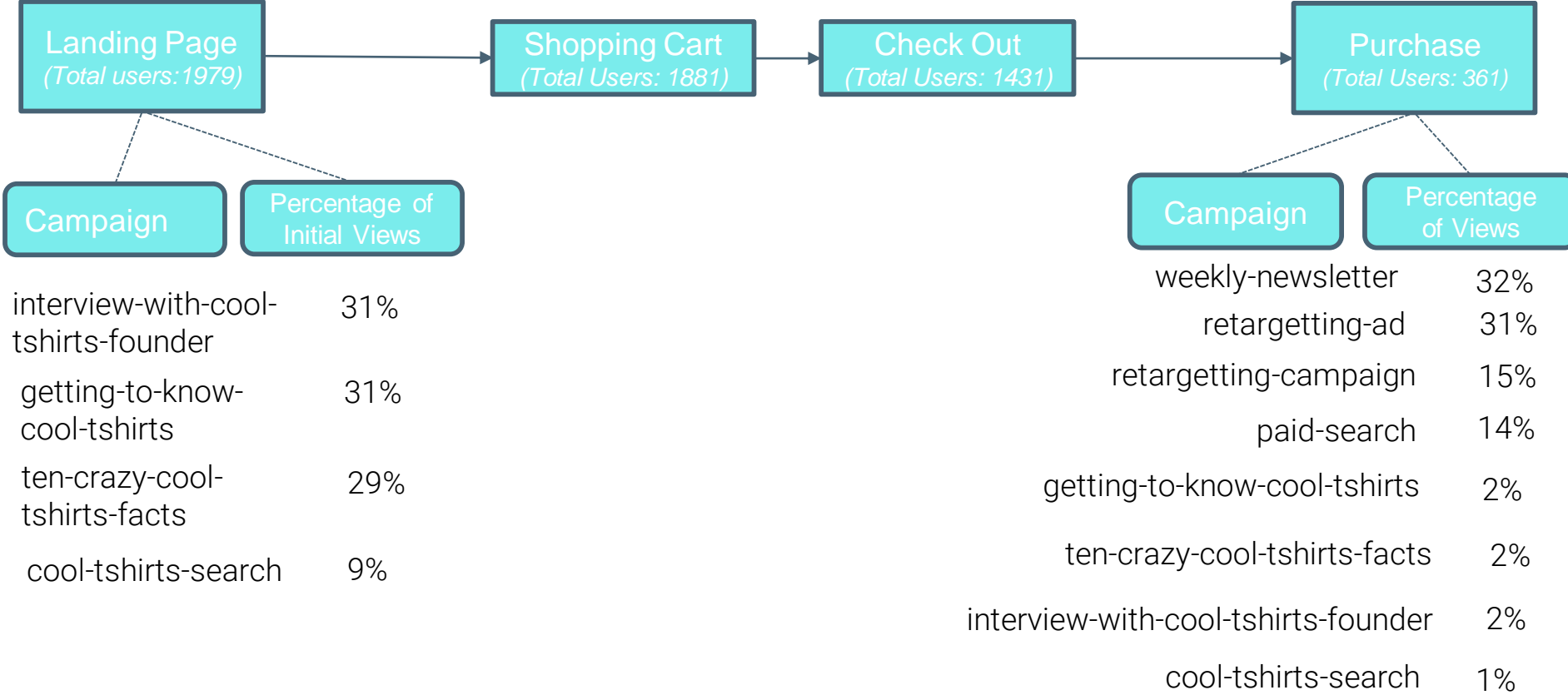
How many purchases does each campaign generate?

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7	interview-with-cool-tshirts-founder	medium
2	cool-tshirts-search	google

- Each of the eight (8) marketing campaigns generated at least one website view that led to a purchase
- The top four (4) marketing campaigns account for 93% of the views that led to purchases
- The campaigns highlighted in yellow drive traffic to the CoolTShirts website, but only generate 7% of the views that led to purchases
- The campaigns highlighted in blue drive views that led to purchases. These campaigns do not drive any new traffic to the website.

III. The Typical Customer Journey

Typical Customer Journey

Landing Page (Total users:1979)	→	Shopping Cart (Total Users: 1881)	→	Check Out (Total Users: 1431)	→	Purchase (Total Users: 361)

Landing Page

Campaign	Percentage of Initial Views
interview-with-cool-tshirts-founder	31%
getting-to-know-cool-tshirts	31%
ten-crazy-cool-tshirts-facts	29%
cool-tshirts-search	9%

Purchase

Campaign	Percentage of Views
weekly-newsletter	32%
retargetting-ad	31%
retargetting-campaign	15%
paid-search	14%
getting-to-know-cool-tshirts	2%
ten-crazy-cool-tshirts-facts	2%
interview-with-cool-tshirts-founder	2%
cool-tshirts-search	1%

IV. How to Optimize the Marketing Budget

Where to Reinvest?

- The key to a great marketing strategy is the combination of high performing drivers with high performing converters. This strategy allows one to attract attention and persuade clients to accept the CoolTShirts value proposition.
- I recommend that we combine the highest performing campaigns that drive traffic to CoolTShirts (interview-with-cool-tshirts-founder, getting-to-know-cool-tshirts, and ten-crazy-cool-tshirts-facts) with the two most successful campaigns that drive purchase behavior (weekly-newsletter and retargetting-ad).