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Attribution Queries

Learn SQL from Scratch
Nathan Schuch
1-9-19

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1. Get familiar with CoolTShirts

1.1 Campaigns and Sources

How many campaigns and sources does CoolTShirts use and how are they related?
Answers: There are 8 Campaigns and 6 Sources. Each Campaign is distinct and there is one source associated with it. Certain sources were used with multiple campaigns.
Definitions:
- Utm_source: Identifies which touchpoint sent the traffic
- Utm_campaign: Identifies the specific ad or email blast

Campaign_Name	Source_Name
getting-to-know-cool-tshirts	Nytimes
weekly-newsletter	Email
Ten-crazy-cool-tshirts-facts	Buzzfeed
Retargeting-campaign	Email
Retargetting-ad	Facebook
Interview-with-cool-tshirts-founder	Medium
Paid-search	Google
Cool-tshirts-search	Google

```
SELECT COUNT (DISTINCT utm_campaign) AS
Number_of_Campaigns,
            COUNT (DISTINCT
utm_source) AS Number_of_Sources
FROM page_visits;

SELECT DISTINCT utm_Campaign AS
Campaign_Name,
            UTM_source AS Source_Name
FROM page_visits;
```

1.2 CoolTShirts Web Pages

There are 4 web pages on the CoolTshirts site.

Web_Page_Name
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

```
SELECT DISTINCT page_name AS Web_Page_Name
FROM page_visits;
```

2. What is the user journey?

2.1 First Touch Campaigns

Below are first touch campaigns ordered by number of first touches, greatest to least. The Interview-with-cool-tshirts-founder campaign through Medium had the greatest number of first touches.

First_Touch_Source	First_Touch_Campaign	Number_of_First_Touches
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

2.2 Last Touch Campaigns

Below are last touch campaigns ordered by number of last touches, greatest to least. The weekly-newsletter campaign through Email had the greatest number of last touches at 447.

Last_Touch_Source	Last_Touch_Campaign	Number_of_Last_Touches
Email	Weekly-newsletter	447
facebook	Retargetting-ad	443
email	Retargetting-campaign	245
nytimes	getting-to-know-cool-tshirts	232
buzzfeed	Ten-crazy-cool-tshirts-facts	190
medium	Interview-with-cool-tshirts-founder	184
google	Paid-search	178
google	Cool-tshirts-search	60

2.3 Number of Visitors Who Made a Purchase

Overall the number of visitors to the site who made a purchase equaled 361.

Number_of_Visitors_Purchase
361

```
SELECT COUNT (DISTINCT user_id) AS
Number_of_Visitors_Purchase
FROM page_visits
WHERE page_name = '4 - purchase';
```

2.4 Last Touch Campaigns Resulting in a Purchase

Below are last touch campaigns that resulted in a purchase, ordered by number of last touches, greatest to least. The weeky-newsletter campaign through Email was responsible for the greatest number of purchases at 115.

Last_Touch_Source	Last_Touch_Campiagn	Purchases_From_Campaigns
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

2.5 Typical User Journey

- The user discovers CoolTShirts primarily through medium, nytimes, and buzzfeed sources based upon following campaigns: the interview-with-cool-tshirts founder, getting-to-know-cool-tshirts, and ten-crazy-cool-tshirts-facts (Top 3 first touches = 1810 ~91% of users)
- Users were targeted via other campaigns to encourage a sale.
- Then, specifically through the weekly-news letter campaign via email (115), retargeting-ad campaign via facebook(113), retargeting-campaign via email (54), and paid-search via google (52) purchases were made. This is 92% of the purchases made.

3. Optimize the campaign budget

3.1 Top 5 Campaigns to reinvest in

The following recommendations are based purely on the data provided. Other factors may influence which campaigns to reinvest in, such as cost of campaign, cost of source that the ad comes from, as well as other unknown factors such as number viewers on the source exposed to the ads. More ROI information is needed to truly make a confident decision as to which campaigns to reinvest in.

1. Weekly-newsletter (based upon last touch #1 (447) and purchase from campaigns #1 (115))
2. Retargeting-ad (based upon last touch #2 (443) and purchase from campaigns #2 (113))
3. Retargeting-campaign (based upon last touch #3 (245) and purchase from campaigns #3 (54))
4. Getting-to-know-cool-tshirts (based upon first touch #2 (612), last touch #4 (232))
5. Ten-crazy-cool-tshirts-facts (based upon first touch #3 (576), last touch #5 (190))

Although the last 2 recommendations only had 9 purchases from the campaigns, the higher number of first and last touches gives more confidence that eventually these campaigns might convert to purchases.