



Attribution Queries

Learn SQL from Scratch

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1. Get Familiar with CoolTShirts

1.1 Campaigns

- Using the query shown to the right, CoolTShirts uses eight different campaigns, shown below
- Each campaign is a marketing ploy to initiate a purchase from a potential customer

```
SELECT DISTINCT utm_campaign  
FROM page_visits;
```

```
SELECT COUNT(DISTINCT utm_campaign)  
FROM page_visits;
```

	Campaigns	
Getting to Know CoolTShirts	Weekly Newsletter	Ten Crazy Cool Tshirt Facts
Interview with CoolTShirts Founder	Retargeting Ad	Paid Search
Retargeting Campaign		Cool Tshirts Search

1.1 Sources

- Using the query shown to the right, CoolTShirts uses six different sources, shown below
- Each source is where CoolTShirts displays their campaigns and where the first touch is initialized

```
SELECT DISTINCT utm_source  
FROM page_visits;
```

```
SELECT COUNT(DISTINCT utm_source)  
FROM page_visits;
```

Sources		
NYTimes	Email	Buzzfeed
Medium	Google	Facebook

1.1 Campaign and Source Relationship

- Not every campaign is used on each source, therefore using the query on the right, we can find which source each campaign is used, shown below

Campaign	Source
Getting to Know Cool Tshirts	NYTimes
Weekly Newsletter	Email
Ten Crazy Cool Tshirt Facts	Buzzfeed
Retargeting Campaign	Email
Retargeting Ad	Facebook
Interview with Cool TShirts Founder	Medium
Paid Search	Google
Cool Tshirts Search	Google

```
SELECT DISTINCT utm_campaign, utm_source  
FROM page_visits;
```

1.2 Website Pages and Typical User Journey

- Using the query shown to the right, CoolTShirts has four web pages, shown below
- These are the various parts of the website the prospective customer may encounter

Page Name
Landing Page
Shopping Cart
Checkout
Purchase

```
SELECT DISTINCT page_name  
FROM page_visits;
```

2. The User's Journey

2.1 First Touches by Campaign

- Using the query shown to the right, we are able to see that the most first touches come from the interview with Cool Tshirts' founder (results shown below)

Campaign	First Touches
Interview with Cool Tshirts Founder	622
Getting to Know Cool Tshirts	612
Ten Crazy Cool Tshirt Fact	576
Cool Tshirts Search	169

```
WITH first_touch AS (  
  SELECT user_id,  
         MIN(timestamp) as first_touch_at  
  FROM page_visits  
  GROUP BY user_id)  
SELECT ft.user_id,  
       ft.first_touch_at,  
       pv.utm_source,  
       pv.utm_campaign,  
       COUNT(utm_campaign)  
FROM first_touch ft  
JOIN page_visits pv  
  ON ft.user_id = pv.user_id  
  AND ft.first_touch_at = pv.timestamp  
GROUP BY utm_campaign;
```

2.2 Last Touches by Campaign

- Using the query shown to the right, we are able to see that most last touches come from the weekly newsletter (results shown below)

Campaign	Last Touches
Weekly Newsletter	447
Retargeting Ad	443
Retargeting Campaign	245
Getting to Know Cool Tshirts	232
Ten Crazy Cool Tshirt Facts	190
Interview with Cool Tshirts Founder	184
Paid Search	178
Cool Tshirts Search	60

```
WITH last_touch AS (  
  SELECT user_id,  
         MAX(timestamp) as last_touch_at  
  FROM page_visits  
  GROUP BY user_id)  
SELECT lt.user_id,  
       lt.last_touch_at,  
       pv.utm_source,  
       pv.utm_campaign,  
       COUNT(utm_campaign)  
FROM last_touch lt  
JOIN page_visits pv  
  ON lt.user_id = pv.user_id  
  AND lt.last_touch_at = pv.timestamp  
GROUP BY utm_campaign;
```

2.3 Purchases

- Using the query shown to the right, we can find that there were 361 unique users who made a purchase from Cool Tshirts

Purchases
361

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

2.4 Purchases by Campaign

- Using the query shown to the right, we are able to see the number of purchases from each campaign, shown below

Campaign	Purchases
Weekly Newsletter	115
Retargeting Ad	113
Retargeting Campaign	54
Paid Search	52
Ten Crazy Cool Tshirt Facts	9
Getting to Know Cool Tshirts	9
Interview with Cool Tshirts Founder	7
Cool Tshirts Search	2

```
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 lt.user_id,  
       lt.last_touch_at,  
       pv.utm_source,  
       pv.utm_campaign,  
       COUNT(utm_campaign)  
FROM last_touch lt  
JOIN page_visits pv  
  ON lt.user_id = pv.user_id  
  AND lt.last_touch_at = pv.timestamp  
GROUP BY utm_campaign  
ORDER BY count(utm_campaign) DESC;
```

3. Where to invest?

1. Continue to Develop a Strong Weekly Newsletter

- Already the largest producer of purchases, investing further in the weekly newsletter will help further develop the relationship with the customer
- A strong newsletter will also help build a strong base of repeat customers that will keep Cool Tshirts in mind

2. Interview with Cool Tshirts Founder

- Getting potential customers aware of your product is an important step of business
- The interview generated the most first touches among the campaigns
- Putting more resources into this campaign, including ways to keep readers engaged, can help transform more of the initial touches into purchases

3. Getting to Know Cool Tshirts

- Much like the interview, this campaign helped generate plenty of first touches but not many purchases
- Building a relationship with a media giant like the NY Times can help broaden the spectrum of prospective customers

4. Retargeting Ad

- The retargeting ad on Facebook generates a very good amount of last touches and purchases
- Investing further to reach more people could help expand Cool Tshirts' brand exposure and sales

5. Retargeting Campaign

- With this campaign medium being email, you can do a lot personalization to make Cool Tshirts appeal to the individual
- Already seeing good results with last touches and purchases