# CoolTShirts Marketing Attribution

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- Page Visits Table Schema:

| name | type |
|---|---|
| page_name | TEXT |
| timestamp | TEXT |
| user_id | INTEGER |
| utm_campaign | TEXT |
| utm_source | TEXT |

- Data inspection
  - How many campaigns and sources did CoolTShirts use?
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# Data Inspection

# How many campaigns and sources did CoolTShirts use?

CoolTShirts used 8 unique campaigns and 6 unique sources.

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

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

# What pages are on the CoolTShirts website?

CoolTShirts website contains the following pages:

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

| page_name |
|---|
| 1 - landing_page |
| 2 - shopping_cart |
| 3 - checkout |
| 4 - purchase |

# What is the User Journey?

```sql
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 AS 'ft'
JOIN page_visits AS 'pv'
  ON ft.user_id = pv.user_id
  AND ft.first_touch_at = pv.timestamp
GROUP BY utm_campaign
ORDER BY 5 DESC;
```

How many first touches is each campaign responsible for?

- Medium, NY Times, and Buzzfeed campaigns result in the most first touches.

| user_id | first_touch_at | utm_source | utm_campaign | COUNT(utm_campaign) |
|---|---|---|---|---|
| 10048 | 2018-01-16 04:17:46 | medium | interview-with-cool-tshirts-founder | 622 |
| 10006 | 2018-01-24 03:12:16 | nytimes | getting-to-know-cool-tshirts | 612 |
| 10030 | 2018-01-25 20:32:02 | buzzfeed | ten-crazy-cool-tshirts-facts | 576 |
| 10925 | 2018-01-20 10:21:30 | google | cool-tshirts-search | 169 |

```
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 AS 'lt'
JOIN page_visits AS 'pv'
    ON lt.user_id = pv.user_id
    AND lt.last_touch_at = pv.timestamp
GROUP BY utm_campaign
ORDER BY 5 DESC;
```

How many last touches is each campaign responsible for?

- Email and Facebook campaigns result in the most last touches.

| user_id | last_touch_at | utm_source | utm_campaign | COUNT(utm_campaign) |
|---------|---------------|------------|--------------|---------------------|
| 10006 | 2018-01-25 23:10:16 | email | weekly-newsletter | 447 |
| 10045 | 2018-01-09 03:05:17 | facebook | retargetting-ad | 443 |
| 10030 | 2018-01-28 13:38:02 | email | retargetting-campaign | 245 |
| 10177 | 2018-01-24 11:58:33 | nytimes | getting-to-know-cool-tshirts | 232 |
| 10503 | 2018-01-08 01:39:21 | buzzfeed | ten-crazy-cool-tshirts-facts | 190 |
| 10677 | 2018-01-18 05:07:47 | medium | interview-with-cool-tshirts-founder | 184 |
| 10254 | 2018-01-25 09:12:18 | google | paid-search | 178 |
| 10925 | 2018-01-20 11:55:30 | google | cool-tshirts-search | 60 |

# How many visitors make a purchase?

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

| COUNT(DISTINCT user_id) |
| --- |
| 361 |

```
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 AS 'lt'
JOIN page_visits AS 'pv'
  ON lt.user_id = pv.user_id
  AND lt.last_touch_at = pv.timestamp
GROUP BY utm_campaign
ORDER BY 5 DESC;
```

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

- Email and Facebook campaigns also result in the most purchases.

| user_id | last_touch_at | utm_source | utm_campaign | COUNT(utm_campaign) |
|---|---|---|---|---|
| 10162 | 2018-02-01 04:26:10 | email | weekly-newsletter | 115 |
| 10069 | 2018-01-04 08:13:01 | facebook | retargetting-ad | 113 |
| 10030 | 2018-01-28 13:38:02 | email | retargetting-campaign | 54 |
| 10354 | 2018-01-22 02:00:29 | google | paid-search | 52 |
| 22224 | 2018-01-26 06:30:52 | buzzfeed | ten-crazy-cool-tshirts-facts | 9 |
| 26835 | 2018-01-07 02:12:04 | nytimes | getting-to-know-cool-tshirts | 9 |
| 14770 | 2018-01-15 22:54:18 | medium | interview-with-cool-tshirts-founder | 7 |
| 48931 | 2018-01-17 10:39:53 | google | cool-tshirts-search | 2 |

# What campaigns are worth re-investment?

▶ Out of 1,979 first touches, Medium, the NY Times, and Buzzfeed campaigns make up 1,810.

| utm_source | utm_campaign | COUNT(utm_campaign) |
|---|---|---|
| medium | interview-with-cool-tshirts-founder | 622 |
| nytimes | getting-to-know-cool-tshirts | 612 |
| buzzfeed | ten-crazy-cool-tshirts-facts | 576 |

▶ Out of the 1,979 last touches, Email and Facebook campaigns make up 1,135.

| utm_source | utm_campaign | COUNT(utm_campaign) |
|---|---|---|
| email | weekly-newsletter | 447 |
| facebook | retargetting-ad | 443 |
| email | retargetting-campaign | 245 |

▶ Out of 361 purchases, 228 came from Email and Facebook campaigns.

| utm_source | utm_campaign | COUNT(utm_campaign) |
|---|---|---|
| email | weekly-newsletter | 115 |
| facebook | retargetting-ad | 113 |