

Learn SQL from Scratch: Capstone

First and Last-touch Attribution with CoolTshirts.com

Getting familiar with Cooltshirts.com

- Cooltshirts.com uses a total of 8 campaigns and 6 sources.

Campaigns	Sources
Getting to know cooltshirts	NYTimes
Weekly newsletter	Email
Ten crazy cooltshirts facts	Buzzfeed
Retargeting campaign	Email
Retargeting ad	Facebook
Interview with cooltshirts founder	Medium
Paid search	Google
Cool tshirts search	google

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

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

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

○ How are the campaigns and sources related?

- Sources like the NYTimes, BuzzFeed, Facebook, and Medium contain the articles on cooltshirts while Google and regular email attribute to things such as newsletters and advertisements.
- The difference between `utm_campaign` and `utm_source` is the source identifies what sent the traffic while the campaign is the specific ad or email newsletter.

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

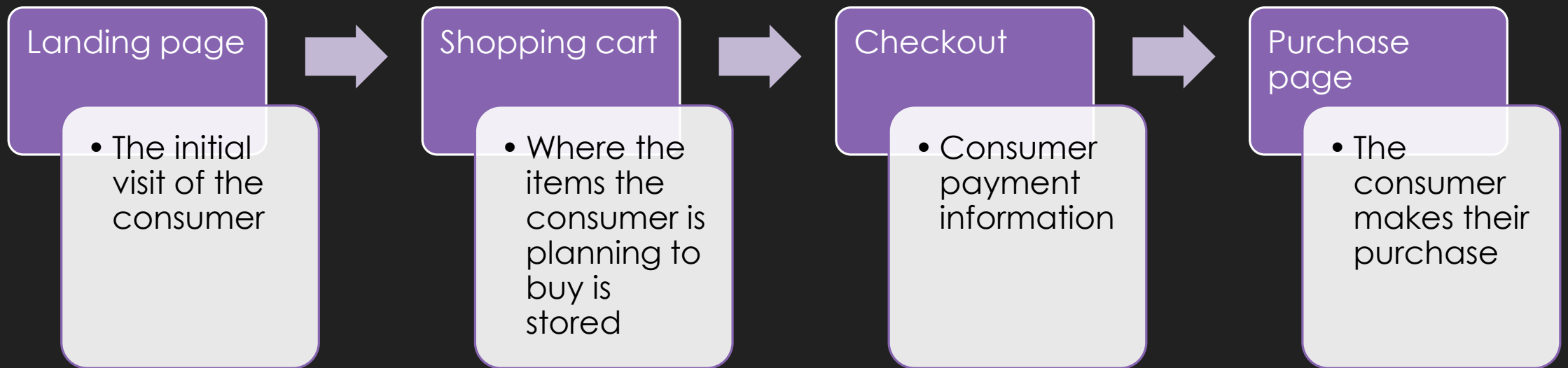
Cooltshirts.com contains these pages

- Landing page
- Shopping cart
- Checkout
- Purchase



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

What is the user journey?



○ How many first touches is each campaign responsible for?

Campaign	First touches
Getting to know cooltshirts	612
Ten crazy cooltshirts facts	576
Interview with cooltshirts founder	622
Cooltshirts search	169
Weekly newsletter	0
Paid search	0
Retargetting campaign	0
Retargetting ad	0

(supporting query
next slide)

```
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  
FROM first_touch AS 'ft'  
JOIN page_visits AS 'pv'  
    ON ft.user_id = pv.user_id  
    AND ft.first_touch_at = pv.timestamp;
```

- How many last touches is each campaign responsible for?

Campaign/Source	Last touches
NYTimes	844
Buzzfeed	766
Medium	806
Google	407
Email	692
Facebook	443

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


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

Campaign/Source	Last touches
NYTimes	9
Buzzfeed	9
Medium	7
Google	54
Email	169
facebook	113

(supporting
query next
slide)

- Overall this makes for a total of **361** visitors that have made it to the purchase page.

```
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 ft.user_id,  
       ft.last_touch_at,  
       pv.utm_source  
FROM last_touch AS 'ft'  
JOIN page_visits AS 'pv'  
    ON ft.user_id = pv.user_id  
    AND ft.last_touch_at = pv.timestamp;
```

Optimizing the campaign budget

- If Cooltshirts can reinvest in 5 campaigns, which should they pick?
- Based on the results given, the most profitable sources have been from Facebook, Google, BuzzFeed, NYTimes, and email newsletters.
- Choosing between Medium and the NYTimes was difficult but while Medium did create a good amount of first touches, NYTimes had a little bit more as well as a few more last touches.

Campaigns to re-invest in

Re-targeting ad
(Facebook)

Cool tshirts
search
(Google)

Ten crazy
cooltshirts facts
(Buzzfeed)

Weekly
newsletter
(Email)

Getting to know
cooltshirts
(NYTimes)