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Learn SQL from Scratch David Jeys May 2018



# CoolTShirts





### Getting to customers

• Several marketing campaigns have been run to promote our products and to attract customers to the business.

 These have been run in various formats and through a number of media sources, some on-line platforms such as Google and Buzzfeed, social media such as Facebook, on-line publishers such as NYTimes and Medium and direct emails.

### Basic structure of each campaign

- Each online campaign consisted of 4 pages:
  - Landing page
  - Shopping Cart
  - Checkout
  - Purchase



### Advertising Campaigns – hits received

Advertising campaign	Source	Total Hits
CoolTshirts-search	Google	313
Getting to know CoolTshirts	New York Times	1349
Interview with CoolTshirts founder	Medium 1178	1178
Paid search	Google	231
Retargeting ad	Facebook	558
Retargeting campaign	e-mail	300
Ten crazy CoolTshirts facts	Buzzfeed	1198
Weekly newsletter	e-mail	565

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#### Relevant Code

- WITH last touch AS (
- SELECT user\_id, MAX(timestamp) as last\_touch\_at
- FROM page visits
- GROUP BY user\_id)
- SELECT utm\_campaign, COUNT(last\_touch\_at)
- FROM page\_visits
- Join last\_touch
- ON page\_visits.user\_id = last\_touch.user\_id
- GROUP BY utm\_campaign;

### So how did customers progress?

 The table below shows how customers attracted by each campaign behaved:

Advertising	Landing	Shopping	Checkout	Purchase	Total Hits	Percentage
campaign		Cart				Success
CoolTshirts-search	171	133	7	2	313	1
Getting to know	617	682	41	9	1349	1
CoolTshirts						
Interview with	625	515	31	7	1178	1
CoolTshirts						
founder						
Paid search			179	52	231	23
Retargeting ad			445	113	558	20
Retargeting			246	54	300	18
campaign						
Ten crazy	587	570	32	9	1198	1
CoolTshirts facts						
Weekly newsletter			450	115	565	20

•

#### Relevant Code

• Lused a number of searches similar to:

- WITH Ptwo AS (
- SELECT utm\_campaign, COUNT(\*) as P2
- FROM page\_visits
- WHERE page\_name = '2 shopping\_cart'
- GROUP BY utm\_campaign)
- SELECT utm\_campaign, P2
- FROM Ptwo
- GROUP BY utm\_campaign;

#### • A single combined (slow) search is given below –

SELECT utm\_campaign, COUNT(\*) as P1 FROM page\_visits WHERE page\_name = '1 - landing\_page' GROUP BY utm\_campaign) , Ptwo AS ( SELECT utm\_campaign, COUNT(\*) as P2 FROM page\_visits WHERE page\_name = '2 - shopping\_cart' GROUP BY utm\_campaign) , Pthree AS ( SELECT utm\_campaign, COUNT(\*) as P3 FROM page\_visits WHERE page\_name = '3 - checkout' GROUP BY utm\_campaign) , Pfour AS ( SELECT utm\_campaign, COUNT(\*) as P4 FROM page\_visits WHERE page\_name = '4 - purchase' GROUP BY utm\_campaign) SELECT Pone.utm\_campaign, P1, P2, P3, P4 FROM Pone ON Pone.utm\_campaign = Ptwo.utm\_campaign ON Pone.utm\_campaign = Pthree.utm\_campaign JOIN Pfour ON Pone.utm\_campaign = Pfour.utm\_campaign;

WITH Pone AS (

### Customers changing track

• It is clear from the numbers in the previous that a number of customers are changing 'track' throughout their journey

• For example: user 11635

'Interview with coolTshirts founder' led to page 1

• 'Ten crazy coolTshirts facts' led to page 2

• 'Retargeting campaign' led to page 3

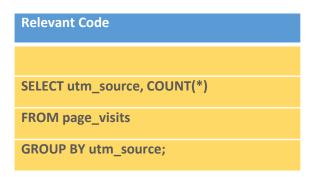
### Code used

- SELECT \*
- FROM page\_visits
- WHERE user\_id = 11635;

#### Sources

• Looking at the various sources we have

Source	No of	Total Hits
	Campaigns	
Buzzfeed	1	1198
Email	1	865
Facebook	1	558
Google	2	544
Medium	1	1178
NYTimes	1	1349



#### Effectiveness?

• The table below shows the percentage of initial hits that leads to purchase as a measure of the effectiveness of each campaign

Advertising campaign	Total Hits	Purchase	Percentage Success
CoolTshirts-search	313	2	1
Getting to know CoolTshirts	1349	9	1
Interview with CoolTshirts founder	1178	7	1
Paid search	231	52	23
Retargeting ad	558	113	20
Retargeting campaign	300	54	18
Ten crazy CoolTshirts facts	1198	9	1
Weekly newsletter	565	115	20

Looking specifically at the campaigns to renew previous interest, we can see the obvious links:

Renew Campaign

Original Campaign

Paid Search

Ten Crazy Things ...

Retargeting Ad

Getting to Know ...

Retargeting Campaign

Interview ...

Weekly Newsletter

Getting to Know ...

### Code to generate previous data

```
• WITH buyers AS (
    SELECT utm_campaign as LC, user_id
   FROM page_visits
• WHERE page_name = '4 - purchase'

    lookers AS (

    SELECT utm_campaign as FC, user_id
   FROM page_visits
• WHERE page_name = '1 - landing_page'
    SELECT LC, FC, COUNT(*)
    FROM buyers
    JOIN lookers
    ON buyers.user_id = lookers.user_id
    GROUP BY LC;
```

#### Next time?

- It would be good to re-invest in the 5 campaigns that produce the most purchases and have the greatest success rates.
- From the previous tables this means that the new campaigns should be:

- 'Getting to Know CoolTshirts' and its follow-ups 'Retargeting Ad' and 'Weekly Newsletter'
- 'Interview with CoolTshirts founder' and its follow-up 'Retargeting Campaign'it.