



Learn SQL from Scratch

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# 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

## Relevant Code

```
SELECT DISTINCT page_name
```

```
FROM page_visits;
```

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



# Relevant Code

- I used 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 –

```
• WITH Pone AS (  
  
• 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  
  
• JOIN Ptwo ON Pone.utm_campaign = Ptwo.utm_campaign  
  
• JOIN Pthree ON Pone.utm_campaign = Pthree.utm_campaign  
  
• JOIN Pfour ON Pone.utm_campaign = Pfour.utm_campaign;
```

# 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 Campaigns	Total Hits
Buzzfeed	1	1198
Email	1	865
Facebook	1	558
Google	2	544
Medium	1	1178
NYTimes	1	1349

Relevant Code
SELECT utm_source, COUNT(*)
FROM page_visits
GROUP BY utm_source;

•

# 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:

<u>Renew Campaign</u>	<u>Original Campaign</u>
• 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.