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CoolTShirts' Marketing Attribution

Analyze Data with SQL

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1. Introduction

Abstract

CoolTShirts, an innovative apparel shop, is running a bunch of marketing campaigns. The goal is to gain insights in the current status of the marketing campaign and figure out where we will re-invest in.

Table Schematics

page_visits A table describing each time a user visits the CoolTShirts website	
Column	**Description**
user_id	A unique identifier for each visitor to a page
timestamp	The time at which the visitor came to the page
page_name	The title of the section of the page that was visited
utm_source	Identifies which site sent the traffic (i.e., google, newsletter, or facebook_ad)
utm_campaign	Identifies the specific ad or email blast (i.e., june-21-newsletter or memorial-day-sale)

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2. Table Classification

List of Campaigns and Sources

To get to know the table, we ran the following commands to list all the available campaigns and sources used by these campaigns for us.

```
SELECT DISTINCT utm_campaign
FROM page_visits;

SELECT DISTINCT utm_source
FROM page_visits;
```

utm_campaign	
cool-tshirt-search	retargetting-ad
getting-to-know-cool-tshirts	retargetting-campaign
interview-with-cool-tshirts-founder	ten-crazy-cool-tshirts-facts
paid-search	weekly-newsletter

utm_source	
buzzfeed	google
email	medium
facebook	nytimes

Relation of Campaign and Sources

In addition, we also want to know what is the **relation of the campaign and sources** to know which sources a campaign uses.

Note: It is also in the finding that each campaign has 1 equivalent source.

```
SELECT utm_campaign, utm_source
FROM page_visits
GROUP BY utm_source, utm_campaign;
```

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

List of Page Names

Lastly we want to figure out what are the lists of the page names that are available to the table.

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

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

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3. Findings

Findings #1: First Touch in each Campaign

- The first finding is the amount of users who first touched the application in each campaign.
- In the table, we can see that there are **only 4 campaigns** which leads the user to the app.
- We can also see that the best campaign is **interview-with-cool-tshirts-founder**.

utm_campaign	num_first_touch
cool-tshirts-search	169
getting-to-know-cool-tshirts	612
interview-with-cool-tshirts-founder	622
ten-crazy-cool-tshirts-facts	576

```
WITH first_touch AS (
  SELECT *, MIN(timestamp) as first_touch_at
  FROM page_visits
  GROUP BY user_id
)
SELECT utm_campaign,
  COUNT(user_id) as num_first_touch
FROM first_touch
GROUP BY utm_campaign;
```

Findings #2: Last Touch in each Campaign

- The next finding was the campaigns which led for the user to their last touch of the app.
- It is seen in the table that **all campaigns led the users to last touch** and the best performing campaigns are **retargetting-ad** and **weekly-newsletter**.

```
WITH last_touch AS (
  SELECT *, MAX(timestamp) as last_touch_at
  FROM page_visits
  GROUP BY user_id
)
SELECT utm_campaign, COUNT(user_id) as
num_last_touch
FROM last_touch
GROUP BY utm_campaign;
```

utm_campaign	num_last_touch
cool-tshirt-search	60
getting-to-know-cool-tshirts	232
interview-with-cool-tshirts-founder	184
paid-search	178
retargetting-ad	443
retargetting-campaign	245
ten-crazy-cool-tshirts-facts	190
weekly-newsletter	447

Findings #3: Last Touch in each Campaign

- The third finding is the amount of last touch in the campaigns where the page of that last touch was ‘4 - purchase’.
- The notable campaigns are **weekly-newsletter**, **retargetting-ad**, **retargetting-campaign** and **paid-search**.

```
WITH last_touch AS (
  SELECT *, MAX(timestamp) as last_touch_at
  FROM page_visits
  GROUP BY user_id
)
SELECT utm_campaign, COUNT(user_id) as
num_last_purchase
FROM last_touch
WHERE page_name = '4 - purchase'
GROUP BY utm_campaign;
```

utm_campaign	num_last_purchase
cool-tshirt-search	2
getting-to-know-cool-tshirts	9
interview-with-cool-tshirts-founder	7
paid-search	52
retargetting-ad	112
retargetting-campaign	53
ten-crazy-cool-tshirts-facts	9
weekly-newsletter	114

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4. Conclusion

Conclusion

To conclude, if the company were to re-invest in 5 campaigns, these campaigns should be:

- weekly-newsletter (since it had the most last touch as purchase at 114)
- retargetting-ad (since it had the second best last touch as purchase at 112)
- Interview-with-cool-tshirts-founder (since it had the most first touch at 622)
- getting-to-know-cool-tshirts (since it had the second best first touch at 612)
- ten-crazy-cool-tshirts-facts (since it had the third best first touch at 576)

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 # The End