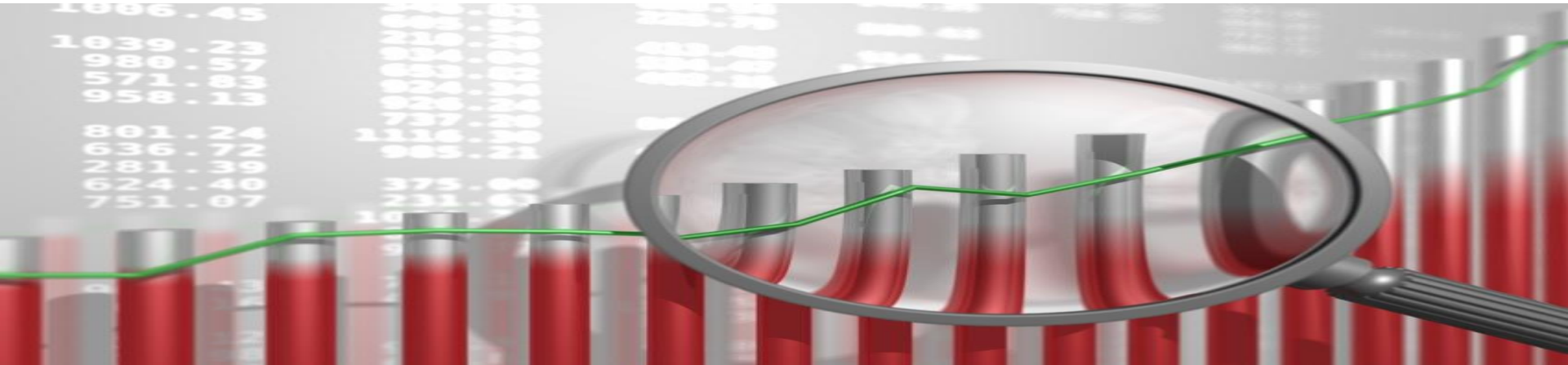


SQL Capstone

CoolTShirts Project





CoolTShirts Project

Learn SQL from Scratch

Alice Santos

June 01 2019

Description

Modeling Strategy

- This project have a goal of to monitor customers when are visiting the website, including the first steps on the navigation until purchase.
- This project will expose the most significantly marketing campaigns adopted, that was able to influence the customer final decision.

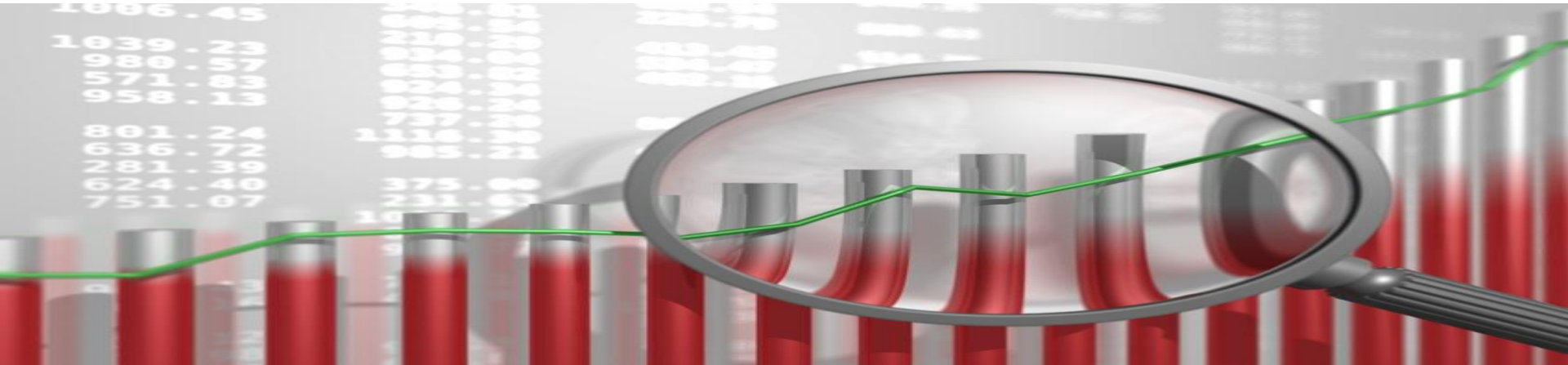


Table of Contents

1. Get familiar with CoolTShirts
2. What is the user journey?
3. Optimize the campaign budget



1. Get Familiar with CoolTShirt

1. Knowing Users and Campaigns

1. How many campaigns and sources does CoolTShirts use?

- Campaigns: 8
- Sources: 6

Code:

1. Description: This code will calculate how many campaigns the business used to advertise their brand:

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

2. Description: This code will calculate how many sources this business used to advertise their brand:

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

Results:

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

2. How they are related:

3. Description: This code will expose how sources and campaign are related.

Code:

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

Results:

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

3. What pages are on the CoolTShirts website?

- 4

4. Description: This code will expose what pages are on the business Website.

Code:

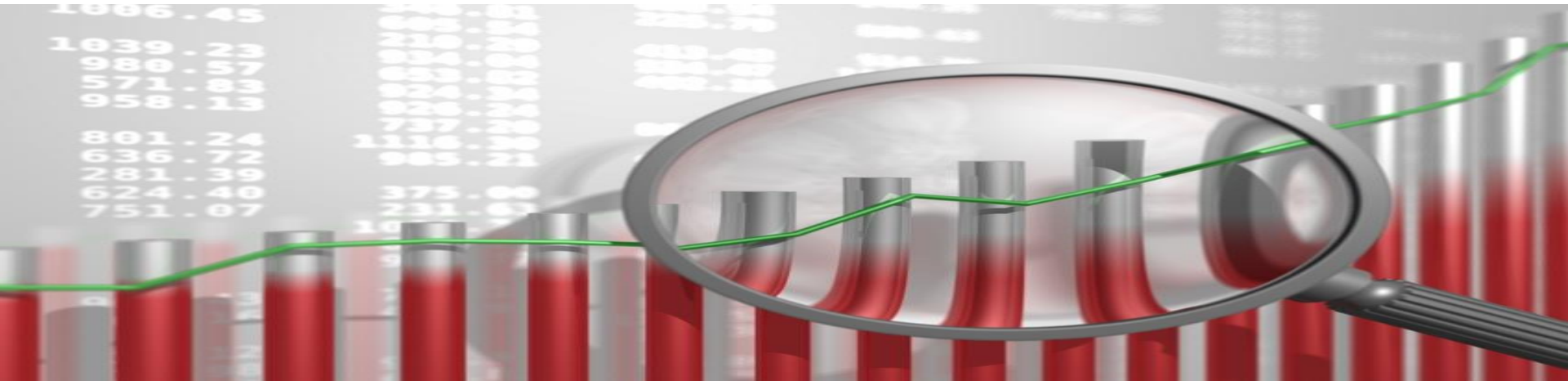
```
SELECT DISTINCT page_name  
FROM page_visits;
```

Results:

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

CoolTShirt

What is the user journey?



4. How many first touches is each campaign responsible for?

5. Description: This code will expose which campaign are responsible for the first customers access.

Results:

CODE:

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

ser_id	first_touch_at	utm_source	utm_campaign	COUNT (utm_campaign)
99990	2018-01-13 23:30:09	medium	interview-with-cool-tshirts-founder	622
99933	2018-01-25 00:04:39	nytimes	getting-to-know-cool-tshirts	612
99765	2018-01-04 05:59:46	buzzfeed	ten-crazy-cool-tshirts-facts	576
99684	2018-01-13 13:20:49	google	cool-tshirts-search	169

5. How many last touches is each campaign responsible for?

6. Description: This code will expose which campaign are responsible for the last customers access.

CODE:

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

Results:

user_id	last_touch_at	utm_source	utm_campaign	COUNT (utm_campaign)
99933	2018-01-26 06:18:39	email	weekly-newsletter	447
99928	2018-01-24 05:26:09	facebook	retargeting-ad	443
99990	2018-01-16 11:35:09	email	retargeting-campaign	245
99589	2018-01-15 04:55:43	nytimes	getting-to-know-cool-tshirts	232
99765	2018-01-04 05:59:47	buzzfeed	ten-crazy-cool-tshirts-facts	190
99838	2018-01-02 07:40:34	medium	interview-with-cool-tshirts-founder	184
98840	2018-01-10 04:58:48	google	paid-search	178
99344	2018-01-18 21:36:32	google	cool-tshirts-search	60

6. How many visitors make a purchase?

7. Description: This code will expose how many clients really processed payments.

Code:

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

Results:

COUNT(DISTINCT user_id)
361

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

8. Description: This code will expose how many last access on the purchase page, each campaign is responsible

Code:

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

Results:

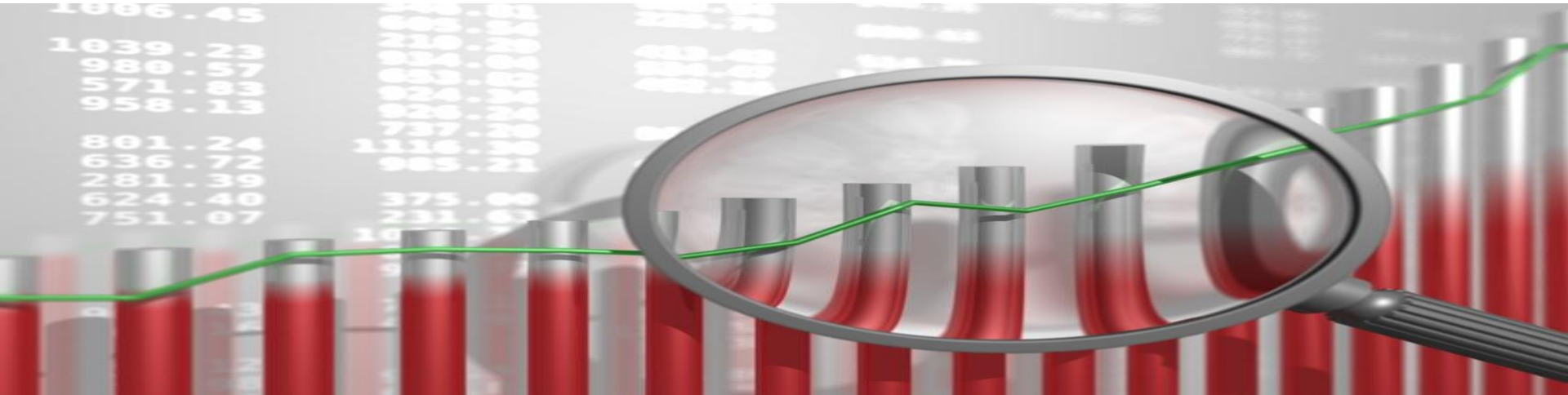
user_id	last_touch_at	utm_source	utm_campaign	COUNT (utm_campaign)
99933	2018-01-26 06:18:39	email	weekly-newsletter	115
99897	2018-01-06 09:41:19	facebook	retargeting-ad	113
99285	2018-01-24 09:00:58	email	retargeting-campaign	54
94567	2018-01-19 16:37:58	google	paid-search	52
92172	2018-01-16 15:15:29	nytimes	getting-to-know-cool-tshirts	9
98651	2018-01-15 04:17:36	buzzfeed	ten-crazy-cool-tshirts-facts	9
83547	2018-01-10 18:20:21	medium	interview-with-cool-tshirts-founder	7
95650	2018-01-18 00:25:00	google	cool-tshirts-search	2

8. What is the typical user journey?

- User identify The interview-with-cool-tshirts-founder, and first access the website
- User receive the email new_weekly_newsletter and access the website to process the purchase.

CoolTShirt

Optimize the campaign budget



9. CoolTShirts can re-invest in 5 campaigns. Which should they pick and why?

- Campaigns with better performance.

Campaigns responsible for the last touch on the purchase page

1. By Email – weekly_Newsletter
2. By facebook – Retargeting_ad
3. By email – retargeting_Campaign
4. By google – paid_search
5. By Nytimes – getting_to_know_cool_tshirts