

Hello, reviewer,
welcome in my Capstone Project!

I'm glad you picked me. 😊
I hope you will judge my project strictly and fairly, my name,
and my email will be found at the end of the presentation.

Let's get started!

Have a nice day!

FIRST- AND LAST-TOUCH ATTRIBUTION

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

1.1 How many campaigns and sources does CoolTShirts use? How are they related?

CoolTShirts uses 8 campaigns.

CoolTShirts have 6 sources.

They are related with UTM parameters.

These parameters capture when and how a user finds the site. Web developers, marketers, and data analysts use that informations to improve their sources. (sometimes called channels or touchpoints) online.

utm_campaign	utm_source	column3
8	6	

-- You can put your query here

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

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

1.2 Be sure to explain the difference between **utm_campaign** and **utm_source**.

Utm_campaign = the action or business of promoting and selling products or services, including market research and advertising. CTS started a few marketing campaigns to increase website visits and purchases.

Utm_source = Identifies which touchpoint sent the traffic (e.g. Google, email, or Facebook)

[illegible]

1.3. What pages are on the CoolTShirts website?

There are 4 pages:

1 - landing_page

2 - shopping_cart

3 - checkout

4 - purchase

page_name	column2	column3
landing_page		
shopping_cart		
checkout		
purchase		

-- You can put your query here

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

1.4 Which source is used for each campaign?

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

2. What is the user journey?

1 - landing_page

2 - shopping_cart

3 - checkout

4 - purchase

2.1 How many first touches is each campaign responsible for?

Here's the query to count first touches per campaign and source.

ft_attr.utm_source	ft_attr.utm_campaign	COUNT(*)
medium	interview-with-cool-tshirts-founder	622
nytimes	getting-to-know-cool-tshirts	612
buzzfeed	ten-crazy-cool-tshirts-facts	576
google	cool-tshirts-search	169

```
-- You can put your query here
WITH first_touch AS (
    SELECT user_id,
           MIN(timestamp) as first_touch_at
    FROM page_visits
    GROUP BY user_id),
ft_attr AS (
    SELECT ft.user_id,
           ft.first_touch_at,
           pv.utm_source,
           pv.utm_campaign
    FROM first_touch ft
    JOIN page_visits pv
    ON ft.user_id = pv.user_id
    AND ft.first_touch_at = pv.timestamp
)
SELECT ft_attr.utm_source,
       ft_attr.utm_campaign,
       COUNT(*)
FROM ft_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```


2.2 How many last touches is each campaign responsible for?

Here's the query to count last touches per campaign and source.
last_touch is the set of all last touches.

lt_attr.utm_campaign	lt_attr.utm_source	COUNT(*)
weekly-newsletter	email	447
retargeting-ad	facebook	443
retargeting-campaign	email	245
getting-to-know-cool-tshirts	nytimes	232
ten-crazy-cool-tshirts-facts	buzzfeed	190
interview-with-cool-tshirts-fo under	medium	184
paid-search	google	178
cool-tshirts-search	google	60

```
-- You can put your query here
WITH last_touch AS (
    SELECT user_id,
           MAX(timestamp) as last_touch_at
    FROM page_visits
    GROUP BY user_id),
lt_attr AS (
    SELECT lt.user_id,
           lt.last_touch_at,
           pv.utm_source,
           pv.utm_campaign,
           pv.page_name
    FROM last_touch lt
    JOIN page_visits pv
    ON lt.user_id = pv.user_id
    AND lt.last_touch_at = pv.timestamp
)
SELECT lt_attr.utm_source,
       lt_attr.utm_campaign,
       COUNT(*)
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

2.3 How many visitors make a purchase?

Count the distinct users who visited the page named 4 - purchase.
There are 361 visitors.

COUNT(DISTINCT user_id)	column2	column3
361		

-- You can put your query here

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

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

Here's the query to count last touches per campaign and source.
last_touch is the set of all last touches.

lt_attr.utm_campaign	lt_attr.utm_source	COUNT(*)
weekly-newsletter	email	115
retargeting-ad	facebook	113
retargeting-campaign	email	54
paid-search	google	52
getting-to-know-cool-tshirts	nytimes	9
ten-crazy-cool-tshirts-facts	buzzfeed	9
interview-with-cool-tshirts-fo under	medium	7
cool-tshirts-search	google	2

```
-- You can put your query here
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),
lt_attr AS (
    SELECT lt.user_id,
           lt.last_touch_at,
           pv.utm_source,
           pv.utm_campaign,
           pv.page_name
    FROM last_touch lt
    JOIN page_visits pv
    ON lt.user_id = pv.user_id
    AND lt.last_touch_at = pv.timestamp
)
SELECT lt_attr.utm_campaign,
       lt_attr.utm_source,
       COUNT(*)
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

2.5 What is the typical user journey?

The typical user journey consists of 3 steps:

1. The user browses products and adds them their cart.
2. The user proceeds to the checkout page.
3. The user enters credit card information and makes a purchase.

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

CoolTShirts, an innovative apparel shop, is running a bunch of marketing campaigns. In this capstone, I'll be helping them answer these questions about their campaigns.

CoolTShirts sells shirts of all kinds, as long as they are T-shaped and cool. Recently, CTS started a few marketing campaigns to increase website visits and purchases. Using touch attribution, they'd like to map their customers' journey: from initial visit to purchase. They can use that information to optimize their marketing campaigns.

I recommend they pick the `weekly-newsletter` campaign where the purchase is a most highly.(by the template 2.4)

There is still a good purchase rate at `retargetting_ad` (by the template2.4) but if we look at it better,.....

see the next page→

3.1 next page and a “bonus query” by myself

I did a query myself and if we assuming I understand the query well,

...there are a lot of exits at the checkout stage. Something is not good if they have so many last_touch_at.

COUNT(DISTINCT last_touch_at)	utm_campaign	page_name
447	weekly-newsletter	4 - purchase
443	retargetting-ad	3 - checkout
245	retargetting-campaign	3 - checkout
232	getting-to-know-cool-tshirts	2 - shopping_cart
190	ten-crazy-cool-tshirts-facts	2 - shopping_cart
184	interview-with-cool-tshirts-founder	3 - checkout
178	paid-search	3 - checkout
60	cool-tshirts-search	2 - shopping_cart

```
-- You can put your query here
WITH last_touch AS (
    SELECT user_id,
           MAX(timestamp) as last_touch_at
    FROM page_visits
    GROUP BY user_id),
lt_attr AS (
    SELECT lt.user_id,
           lt.last_touch_at,
           pv.utm_source,
           pv.utm_campaign,
           pv.page_name
    FROM last_touch lt
    JOIN page_visits pv
      ON lt.user_id = pv.user_id
      AND lt.last_touch_at = pv.timestamp
)
SELECT COUNT(DISTINCT last_touch_at),
       utm_campaign,
       page_name
FROM lt_attr
GROUP BY 2
ORDER BY 1 DESC;
```

Acknowledgments :

Thanks to Codecademy for the great training opportunity!



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I really enjoyed learning with you and
I hope I can learn more,
to get to a higher level.





Capstone Project : FIRST- AND LAST-TOUCH ATTRIBUTION

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