1. First Touches

The relation between each campaign and the resulted **first** touches per campaign were analyzed using the query:

```sql
WITH first_touch AS (
  SELECT user_id,
    MIN(timestamp) AS first_touch_at
  FROM page_visits
  GROUP BY user_id
)
SELECT COUNT(pv.user_id) AS total_first_touches,
      pv.utm_campaign
FROM page_visits AS pv
JOIN first_touch AS ft
ON pv.user_id = ft.user_id
AND pv.timestamp = ft.first_touch_at
GROUP By pv.utm_campaign
ORDER BY total_first_touches DESC;
```

The results of the query showed that both *interview-with-cool-tshirts-founder* and *getting-to-know-cool-tshirts* campaigns were responsible for the most new visits to the website:

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

2. Last Touches

The relation between each campaign and the resulted *last* touches per campaign were analyzed using the query:

```sql
WITH last_touch AS (
  SELECT user_id,
    MAX(timestamp) AS last_touch_at
  FROM page_visits
  GROUP BY user_id
)
SELECT COUNT(pv.user_id) AS total_last_touches,
  pv.utm_campaign
FROM page_visits AS pv
JOIN last_touch AS lt
ON lt.user_id = pv.user_id
AND lt.last_touch_at = pv.timestamp
GROUP BY pv.utm_campaign
ORDER BY total_last_touches DESC;
```

On the contrary to first touches, the results of the query showed that both *weekly-newsletter* and *retargetting-ad* campaigns were responsible for the most last touches to the website:

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

3. Purchase

The relation between each campaign and the resulted **purchase** touches per campaign were analyzed using the query:

```
SELECT COUNT(user_id) AS purchases
  utm_campaign
FROM page_visits
WHERE page_name = '4 - purchase'
GROUP BY utm_campaign
ORDER BY purchases DESC;
```

In accordance with last touches analysis, the results of the query showed that both *weekly-newsletter* and *retargetting-ad* campaigns were responsible for the most last purchase touches on the website:

purchases	utm_campaign
115	weekly-newsletter
113	retargetting-ad
54	retargetting-campaign
52	paid-search
9	ten-crazy-cool-tshirts-facts
9	getting-to-know-cool-tshirts
7	interview-with-cool-tshirts-founder
2	cool-tshirts-search

4. Conclusion

The company should invest more in the weekly newsletter and in the re-targetting ads for users who didn't complete the churn from first touch to purchase.