**1.1**

SELECT COUNT(DISTINCT utm\_campaign)

FROM page\_visits;

SELECT COUNT(DISTINCT utm\_source)

FROM page\_visits;

SELECT DISTINCT utm\_campaign,

utm\_source

FROM page\_visits;

**1.2**

SELECT DISTINCT page\_name

FROM page\_visits;

**2.1**

WITH first\_touch AS (

SELECT user\_id,

MIN(timestamp) AS 'first\_touch\_at’

FROM page\_visits

GROUP BY user\_id

)

SELECT pv.utm\_campaign,

COUNT(\*)

FROM first\_touch AS ft

JOIN page\_visits AS pv

ON ft.user\_id = pv.user\_id

AND ft.first\_touch\_at = pv.timestamp

GROUP BY 1;

**2.2**

WITH last\_touch AS (

SELECT user\_id,

MAX(timestamp) AS 'last\_touch\_at’

FROM page\_visits

GROUP BY user\_id

)

SELECT pv.utm\_campaign,

COUNT(\*)

FROM last\_touch AS lt

JOIN page\_visits AS pv

ON lt.user\_id = pv.user\_id

AND lt.last\_touch\_at = pv.timestamp

GROUP BY 1

ORDER BY 2 DESC;

**2.3**

SELECT COUNT(DISTINCT user\_id)

FROM page\_visits

WHERE page\_name = '4 - purchase';

**2.4**

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 pv.utm\_campaign,

COUNT(\*)

FROM last\_touch AS lt

JOIN page\_visits AS pv

ON lt.user\_id = pv.user\_id

AND lt.last\_touch\_at = pv.timestamp

GROUP BY 1

ORDER BY 2 DESC;