**Question 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;

**Question 2**

SELECT DISTINCT page\_name FROM page\_visits;

**Question 3**

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;

**Question 4**

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

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;

**Question 5**

SELECT COUNT(DISTINCT user\_id) FROM page\_visits WHERE page\_name = '4 - purchase';

**Question 6**

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

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;

**Additional query with page names**

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 AS 'source', lt\_attr.utm\_campaign AS 'campaign', lt\_attr.page\_name AS 'page name', COUNT(\*) FROM lt\_attr

GROUP BY 1, 2, 3 ORDER BY 4 DESC;