**Підготовка даних для побудови звітів у BI системах (Preparation of data for building reports in BI systems)**

SELECT

  DISTINCT DATE(TIMESTAMP\_MICROS(event\_timestamp)) AS event\_timestamp,

  user\_pseudo\_id,

  (

  SELECT

    value.int\_value

  FROM

    e.event\_params

  WHERE

    KEY = 'ga\_session\_id') AS session\_id,

  event\_name,

  geo.country,

  device.category AS device\_category,

  traffic\_source.source,

  traffic\_source.medium,

  traffic\_source.name AS campaign

FROM

  `bigquery-public-data.ga4\_obfuscated\_sample\_ecommerce.events\_20210131` e

WHERE

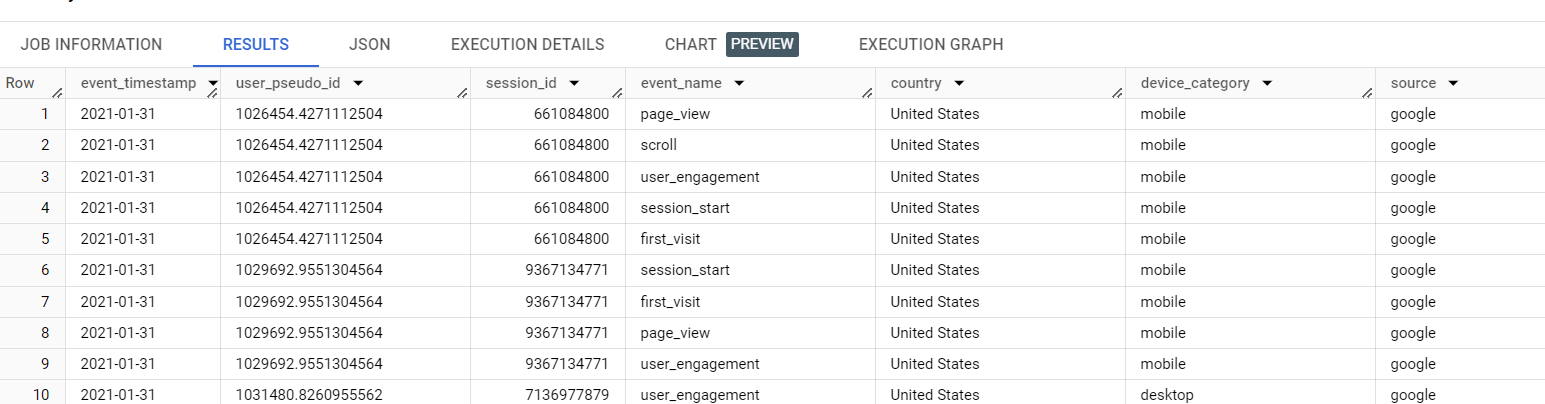
  event\_date BETWEEN '20210101'

  AND '20211231'

LIMIT

  100

Result



## **Розрахунок конверсій в розрізі дат та каналів трафіку (Calculation of conversions in terms of dates and traffic channels)**

WITH

  events AS(

  SELECT

    user\_pseudo\_id,

    DATE(TIMESTAMP\_MICROS(event\_timestamp)) AS event\_date,

    traffic\_source.source AS traffic\_source,

    traffic\_source.medium AS medium,

    traffic\_source.name AS campaign,

    event\_name,

    (

    SELECT

      value.int\_value

    FROM

      e.event\_params

    WHERE

      KEY = 'ga\_session\_id') AS session\_id

  FROM

    bigquery-public-data.ga4\_obfuscated\_sample\_ecommerce.events\_20210131 e),

  session AS (

  SELECT

    user\_pseudo\_id,

    session\_id

  FROM

    events

  WHERE

    event\_name = 'session\_start'),

  cart AS (

  SELECT

    user\_pseudo\_id,

    session\_id

  FROM

    events

  WHERE

    event\_name = 'add\_to\_cart'),

  checkout AS (

  SELECT

    user\_pseudo\_id,

    session\_id

  FROM

    events

  WHERE

    event\_name = 'begin\_checkout'),

purchase AS (

  SELECT

    user\_pseudo\_id,

    session\_id

  FROM

    events

  WHERE

    event\_name = 'purchase')

SELECT

  event\_date,

  traffic\_source,

  medium,

  campaign,

  count (DISTINCT e.user\_pseudo\_id ||'/'|| CAST(e.session\_id AS string)) AS user\_sessions\_count,

  round((count(distinct c.user\_pseudo\_id || cast(c.session\_id as string)) /count(distinct s.user\_pseudo\_id || cast(s.session\_id as string)))\*100,2) as cr\_visit\_to\_cart,

round((count(distinct ch.user\_pseudo\_id || cast(ch.session\_id as string))/ count(distinct s.user\_pseudo\_id || cast(s.session\_id as string)))\*100,2) as cr\_visit\_to\_checkout,

round((count(distinct p.user\_pseudo\_id || cast(p.session\_id as string))/ count(distinct s.user\_pseudo\_id || cast(s.session\_id as string)))\*100,2)as cr\_visit\_to\_purchase

FROM

  events e

left join session s on s.user\_pseudo\_id = e.user\_pseudo\_id

left join cart c on c.user\_pseudo\_id = e.user\_pseudo\_id

left join checkout ch on ch.user\_pseudo\_id = e.user\_pseudo\_id

left join purchase p on p.user\_pseudo\_id = e.user\_pseudo\_id

GROUP BY

  1,

  2,

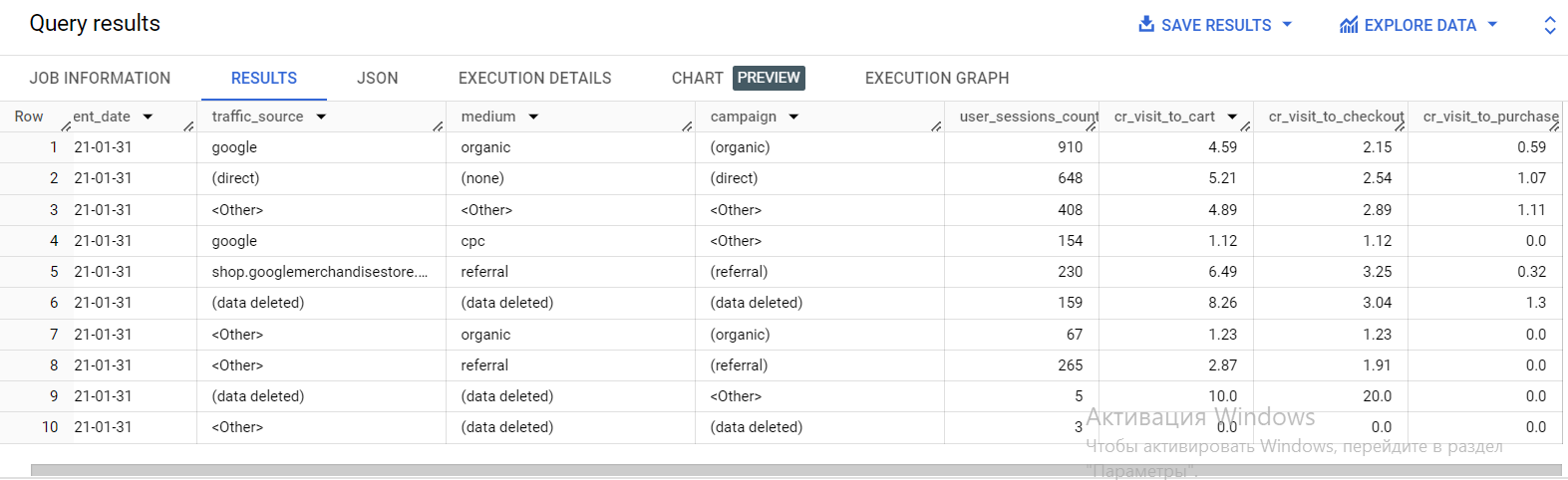
  3,

  4

LIMIT

  100

Result



## **Порівняння конверсії між різними посадковими сторінками (Comparison of conversion between different landing pages)**

with page\_p as (

select distinct (select value.string\_value

from e.event\_params where key = 'page\_location') as page\_path,

(

    SELECT

      value.int\_value

    FROM

      e.event\_params

    WHERE

      KEY = 'ga\_session\_id') AS session\_id,

user\_pseudo\_id,

event\_name

from bigquery-public-data.ga4\_obfuscated\_sample\_ecommerce.events\_20210131 e

),

purchase AS (

  SELECT

    user\_pseudo\_id,

    session\_id

  FROM

    page\_p

  WHERE

    event\_name = 'purchase'),

session AS (

  SELECT

    user\_pseudo\_id,

    session\_id

  FROM

    page\_p

  WHERE

    event\_name = 'session\_start')

select REGEXP\_EXTRACT(page\_path, r'(?:[a-zA-Z]+://)?(?:[a-zA-Z0-9-.]+)/{1}([a-zA-Z0-9-./]+)') as path,

count (DISTINCT page\_p.user\_pseudo\_id ||'/'|| CAST(page\_p.session\_id AS string)) AS user\_sessions\_count,

count (DISTINCT p.user\_pseudo\_id ||'/'|| CAST(p.session\_id AS string)) as count\_purchase,

round((nullif (count (DISTINCT p.user\_pseudo\_id ||'/'|| CAST(p.session\_id AS string)),0)/ nullif (count (DISTINCT s.user\_pseudo\_id ||'/'|| CAST(s.session\_id AS string)),0))\*100,2) as cr\_session\_to\_purchase

from page\_p

left join purchase p on p.user\_pseudo\_id = page\_p.user\_pseudo\_id

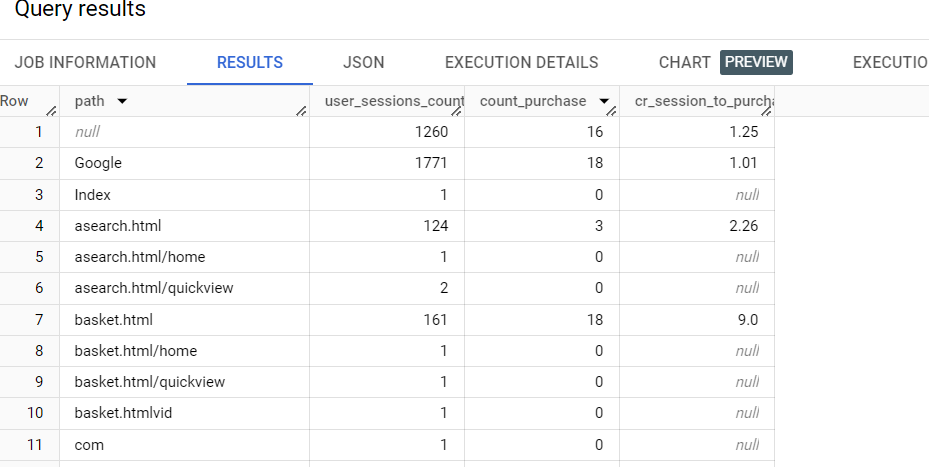
left join session s on s.user\_pseudo\_id = page\_p.user\_pseudo\_id

group by 1

order by 1 asc

limit 100

Result



## **Перевірка кореляції між залученістю користувачів та здійсненням покупок (Testing the correlation between user engagement and purchases)**

with events as (

  select event\_name,

date (timestamp\_micros(event\_timestamp)) as event\_date,

user\_pseudo\_id,

(select value.int\_value

from b.event\_params

where key = 'ga\_session\_number') AS session\_id,

(select value.string\_value

from b.event\_params

where key = 'session\_engaged') AS session\_engaged,

(select value.int\_value

from b.event\_params

where key = 'engagement\_time\_msec') AS engagement\_time\_msec

from bigquery-public-data.ga4\_obfuscated\_sample\_ecommerce.events\_20210131 b

),

purchase as (

  select user\_pseudo\_id,

  session\_id

from events

  where  event\_name = 'purchase'

),

events\_metrics as(

select distinct e.user\_pseudo\_id || cast(e.session\_id as string) as user\_sessions,

case when sum(coalesce(cast (session\_engaged as int),0)) >0 then 1

else 0

end as total\_session\_engaged,

sum(engagement\_time\_msec) as total\_engagement\_time,

count (distinct p.user\_pseudo\_id || cast(p.session\_id as string)) as purchase\_made

from events e

left join purchase p using (user\_pseudo\_id,session\_id)

group by 1)

select

round (corr (total\_session\_engaged,purchase\_made),4) as corr\_eng\_pur,

round (corr (total\_engagement\_time,purchase\_made),4) as corr\_engtime\_pur

from events\_metrics

limit 100

Result

