URL : <https://sqliteonline.com/>

File URL : <https://drive.google.com/file/d/1rdFUnXkQk4iA6nPkF1SkRB33aqJIyP7R/view?usp=sharing>

Upload file to URL

We have 3 tables called **Ad\_impressions**, **Ad\_click** and **Sales**.

**Ad\_impressions’ column is**

user\_id → str

Impression → INT

campaign → str

impression\_date → Date

**Ad\_click’s column is**

user\_id → str

click → INT

campaign → str

click\_date → Date

**Sales’ column is**

user\_id → str

item → str

campaign → str

price → INT (This price means order sales)

unit\_sold → INT

transaction\_date → Date

Q1: Write a query to get a summary of impressions and clicks table below.

Example output :

|  |  |  |
| --- | --- | --- |
| User\_id | Impression | Click |
| ABC | 10 | 1 |

Answer : (Write your query below)

select coalesce(t1.user\_id, t2.user\_id) as user\_id, total\_impressions, total\_clicks

from (select user\_id, sum(impressions) as total\_impressions FROM Ad\_impressions group by user\_id) as t1

full join (select user\_id, sum(clicks) as total\_clicks from Ad\_click group by user\_id) as t2 on t1.User\_id = t2.user\_id;

—--------------------------------------------------------------------------------------------------

Q2: Write a query to get user\_id with sales record but no click record.

Answer : (Write your query below)

select DISTINCT coalesce(t1.user\_id, t2.user\_id) as user\_id

from (select distinct user\_id From sales where unit\_sold > 0) as t1

join (select distinct user\_id from Ad\_click where clicks < 1) as t2 on t1.user\_id = t2.user\_id;

—--------------------------------------------------------------------------------------------------

Q3: Write a query to get impression\_order by each user\_id with impression\_date of ascending order

Example output :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| User\_id | Campaign | Impressions | Impressions\_date | impression\_order |
| ABC | A | 10 | 1999/10/1 | 1 |
| ABC | B | 20 | 1999/10/1 | 1 |
| ABC | A | 10 | 1999/10/2 | 2 |

Answer : (Write your query below)

select user\_id, campaign, impressions, impression\_date,

dense\_rank () over (partition by user\_id order by impression\_date asc) from Ad\_impressions;

—--------------------------------------------------------------------------------------------------

Q4. Write a query to get a summary of impressions,clicks, CTR and sales table below

CTR = click / impression

Example output :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| userid | impressions | clicks | CTR | sales |
| abc | 100 | 2 | 0.02 | 100 |

Answer : (Write your query below)

select coalesce(t1.user\_id, t2.user\_id) as user\_id, total\_impressions, total\_clicks, round(cast(total\_clicks as float)/cast(total\_impressions as float), 2) as CTR, total\_sales

from (select user\_id, sum(impressions) as total\_impressions FROM Ad\_impressions group by user\_id) as t1

FULL join (select user\_id, sum(clicks) as total\_clicks from Ad\_click group by user\_id) as t2 on t1.User\_id = t2.user\_id

FULL JOIN (select user\_id, sum(price\*unit\_sold) AS total\_sales from sales group by user\_id) AS t3 on t1.user\_id = t3.user\_id