

## 1. Join Tables as CSV

```
SELECT Cast(g.uid AS TEXT),
       g.group,
       g.join_dt AS join_date,
       g.device,
       u.country,
       u.gender,
       a.uid AS activity_users,
       a.dt,
       Round(Cast(a.spent AS NUMERIC), 2) AS spent_USD
FROM "groups" AS g
INNER JOIN "users" AS u ON g.uid = u.id
LEFT JOIN "activity" AS a ON a.uid = g.uid;
```

## 2. Sample Size Users

```
SELECT g.group AS TYPE,
       COUNT(DISTINCT g.uid) AS total,
       COUNT(a.spent) AS active
FROM groups g
LEFT JOIN activity a USING(UID)
GROUP BY TYPE
```

## 3. Average amount spent per user for both groups

```
SELECT g.group,
       COUNT(DISTINCT a.uid) AS active_users,
       COUNT(DISTINCT u.id) AS all_users,
       CAST(SUM(a.spent) / COUNT(DISTINCT u.id) AS DECIMAL (10, 3)) AS
avg_spent_user_USD
FROM users AS u
JOIN groups AS g ON g.uid = u.id
AND g.group = 'B'
OR g.uid = u.id
AND g.group = 'A'
LEFT JOIN activity AS a ON a.uid = g.uid
AND g.group = 'B'
OR a.uid = g.uid
AND g.group = 'A'
GROUP BY 1
```

#### 4. What was the conversion rate for all users?

```
SELECT COUNT (DISTINCT a.uid) AS all_converted_users,

      (SELECT count(DISTINCT u.id)

      FROM users AS u) AS total_users,

      count(DISTINCT a.uid) * 100.0 /

      (SELECT COUNT (DISTINCT u.id)

      FROM users AS u) AS conversion_rate
FROM activity AS a;
```

#### 5. The conversion rate for control and treatment?

```
WITH users_data AS

      (SELECT g.group,

            COUNT(DISTINCT a.uid) AS active_users,

            COUNT(DISTINCT u.id) AS total_users

      FROM users AS u

      JOIN groups AS g ON u.id = g.uid

      LEFT JOIN activity AS a USING (UID)

      GROUP BY 1)

SELECT users_data.group,

      cast((active_users*100.0/total_users) AS Numeric (10, 2)) AS conversion_rate
FROM users_data

GROUP BY 1,2
```