

Завдання 2

1.

```
SELECT
    DATE(users.date_reg) AS date_reg,
    countries.group AS country_group,
    COUNT(users.id) AS registrations
FROM
    users
JOIN
    countries ON users.id_country = countries.id
GROUP BY
    date_reg, country_group
ORDER BY
    date_reg, country_group;
```

2.

```
SELECT
    DATE(emails_sent.date_sent) AS date_sent,
    emails_sent.id_type AS email_type,
    COUNT(emails_clicks.id) / COUNT(emails_sent.id) * 100 AS CTR
FROM
    emails_sent
LEFT JOIN
    emails_clicks ON emails_sent.id = emails_clicks.id_email
GROUP BY
    DATE(emails_sent.date_sent), emails_sent.id_type
ORDER BY
    sent_date, email_type;
```

3.

```
SELECT
    e.id_type AS email_type,
    COUNT(
        SELECT 1
        FROM emails_clicks ec
        WHERE ec.id_email = e.id
        AND EXTRACT(EPOCH FROM (ec.date_click - e.date_sent)) / 60 <= 10 ) /
    COUNT(e.id) * 100 AS click_rate_within_10_minutes
FROM
    emails_sent e
LEFT JOIN
    emails_clicks ec ON e.id = ec.id_email
WHERE
    e.date_sent >= CURRENT_DATE - INTERVAL '7 days'
GROUP BY
    e.id_type;
```

4.

```
SELECT
    e.id_type AS email_type,
    PERCENTILE_CONT(0.5) WITHIN GROUP (ORDER BY EXTRACT(EPOCH FROM
(ec.date_click - e.date_sent))) AS median_click_time
FROM
    emails_sent e
JOIN
    emails_clicks ec ON e.id = ec.id_email
WHERE
    e.date_sent >= CURRENT_DATE - INTERVAL '1 month'
GROUP BY
    e.id_type;
```