Ride Cancellation Rate

This project involves analysing the cancellation rate for ride requests, specially from users who are not banned. Given two tables, trips and users containing information on trips and users respectively. Calculate the cancellation rate for carpool requests involving users who are not banned. A ride request is considered cancelled if it is cancelled either by the customer or by the driver. The cancellation rate is calculated by dividing the number o cancelled request (involving non-banned users) by the total number of requests (with non-banned users) each day.

Trips:

id	client_id	driver_id	city_id	status	request_at
1	1	10	1	completed	2023-07-12
2	2	11	1	cancelled_by_driver	2023-07-12
3	3	12	6	completed	2023-07-12
4	4	13	6	cancelled_by_client	2023-07-12
5	1	10	1	completed	2023-07-13
6	2	11	6	completed	2023-07-13
7	3	12	6	completed	2023-07-13
8	2	12	12	completed	2023-07-14
9	3	10	12	completed	2023-07-14
10	4	13	12	cancelled_by_driver	2023-07-14

Users:

users_id	banned	role
1	No	client
2	Yes	client
3	No	client
4	No	client
10	No	driver
11	No	driver
12	No	driver
13	No	driver

Output:

day	cancellation rate
2023-07-12	0.33
2023-07-13	0.00
2023-07-14	0.50

SQL Code:

```
CREATE TABLE Users (
    users_id INT PRIMARY KEY,
    banned VARCHAR(3),
    role VARCHAR(10)
);

INSERT INTO Users (users_id, banned, role) VALUES
(1, 'No', 'client'),
(2, 'Yes', 'client'),
(3, 'No', 'client'),
(4, 'No', 'client'),
(10, 'No', 'driver'),
(11, 'No', 'driver'),
(12, 'No', 'driver'),
(13, 'No', 'driver');

CREATE TABLE Trips (
    id INT PRIMARY KEY,
    client_id INT,
    driver_id INT,
    city_id INT,
    status VARCHAR(30),
```

```
    request_at DATE,
    FOREIGN KEY (client_id) REFERENCES Users(users_id),
    FOREIGN KEY (driver_id) REFERENCES Users(users_id)
);

INSERT INTO Trips (id, client_id, driver_id, city_id, status, request_at) VALUES
(1, 1, 10, 1, 'completed', '2023-07-12'),
(2, 2, 11, 1, 'cancelled_by_driver', '2023-07-12'),
(3, 3, 12, 6, 'completed', '2023-07-12'),
(4, 4, 13, 6, 'cancelled_by_client', '2023-07-12'),
(5, 1, 10, 1, 'completed', '2023-07-13'),
(6, 2, 11, 6, 'completed', '2023-07-13'),
(7, 3, 12, 6, 'completed', '2023-07-13'),
(8, 2, 12, 12, 'completed', '2023-07-14'),
(9, 3, 10, 12, 'completed', '2023-07-14'),
(10, 4, 13, 12, 'cancelled_by_driver', '2023-07-14');

select t.request_at as day,
round(sum(case when t.status='cancelled_by_driver' or t.status='cancelled_by_client' then 1 else 0 end)/count(*)::decimal,2) as cancellation_rate
from Trips t
join Users uc on t.client_id=uc.users_id
join Users ud on t.driver_id=ud.users_id
where uc.banned='No' and ud.banned='No'
GROUP by t.request_at
order by t.request_at
```