create table kolo\_users

(id int, user\_id int, login\_date date);

insert into kolo\_users values(1, 10, '2022-01-01')

insert into kolo\_users values(2, 11, '2022-01-01')

insert into kolo\_users values(3, 23, '2022-01-03')

insert into kolo\_users values(4, 11, '2022-01-04')

insert into kolo\_users values(5, 11, '2022-01-06')

insert into kolo\_users values(6, 22, '2022-01-07')

insert into kolo\_users values(7, 10, '2022-01-07')

insert into kolo\_users values(8, 23, '2022-01-08')

insert into kolo\_users values(9, 10, '2022-01-08')

insert into kolo\_users values(10, 11, '2022-01-12')

insert into kolo\_users values(11, 10, '2022-01-17')

insert into kolo\_users values(12, 11, '2022-01-23')

insert into kolo\_users values(13, 23, '2022-01-26')

insert into kolo\_users values(14, 23, '2022-01-26')

insert into kolo\_users values(15, 10, '2022-01-28')

insert into kolo\_users values(16, 23, '2022-02-01')

insert into kolo\_users values(17, 11, '2022-02-03')

insert into kolo\_users values(18, 11, '2022-02-03')

insert into kolo\_users values(19, 10, '2022-02-07')

insert into kolo\_users values(20, 23, '2022-02-09')

insert into kolo\_users values(21, 23, '2022-02-09')

insert into kolo\_users values(22, 23, '2022-02-09')

insert into kolo\_users values(23, 24, '2022-02-10')

insert into kolo\_users values(24, 25, '2022-02-11')

insert into kolo\_users values(25, 25, '2022-02-12')

insert into kolo\_users values(26, 10, '2022-02-13')

insert into kolo\_users values(27,   10,    '2022-03-14')

insert into kolo\_users values(28,   23,    '2022-03-15')

insert into kolo\_users values(29,   11,    '2022-03-15')

insert into kolo\_users values(30,   10,    '2022-03-17')

with t as (

select a.\*, b.total\_count from

(select month(l\_month.login\_date) as month\_no,

count( distinct (t\_month.user\_id)) as rep\_cus

from kolo\_users as l\_month

left join kolo\_users as t\_month

on l\_month.user\_id = t\_month.user\_id

and DATEDIFF(month, t\_month.login\_date, l\_month.login\_date) = 1

group by month(l\_month.login\_date)) as a

left join

(select month(login\_date) as month\_no, count( distinct user\_id) as total\_count

from kolo\_users

group by month(login\_date)) as b

on a.month\_no = b.month\_no)

select Month\_No, (rep\_cus\*100/total\_count) as Retenetion\_Rate from t;

with t as

(select \*,

lag(login\_date, 1) over(partition by user\_id order by login\_date) as ret\_date

from kolo\_users)

select a.login\_date, count(distinct b.user\_id) as daily\_retention\_count

from

( select \* from

kolo\_users) as a

left join

(select login\_date, user\_id, count(user\_id) as rep\_cus from

t

group by login\_date, ret\_date, user\_id

having datediff(day, ret\_date, login\_date) = 1) as b

on a.login\_date = b.login\_date

group by a.login\_date;