FE 513 ASSIGNMENT

1. Given the data of banks al 2001.csv, define the table structure accordingly in the database.

```
CREATE TABLE bank (
id int,
date date,
asset int,
liability VARCHAR (50)
);
```

Data Output | Explain | Messages | Notifications

	id integer	date character varying (15)	asset integer	liability character varying (50)

2. Import data from banks al 2001.csv

```
COPY bank (id, date, asset, liability)
FROM 'F:\banks_al_2001.csv'
DELIMITER ','
CSV HEADER;
```

	id integer	date character varying (15)	asset integer	liability character varying (50)
1	23373	9/30/2001	90716	82518
2	23375	3/31/2001	221592	202713
3	23375	6/30/2001	236213	218446
4	23376	12/31/2001	79250	72170
5	23376	3/31/2001	72025	65682
6	23376	6/30/2001	72180	65576
7	23376	9/30/2001	72941	66057

3. Query the table and count the number of banks for each quarter.

```
select count(id), date, extract (quarter from date) as
quarter
from bank
where date between '2001-01-01' and '2001-12-31'
group by date
order by date
```

	count bigint	date date	quarter numeric
1	9839	2001-03-31	1
2	9764	2001-06-30	2
3	9718	2001-09-30	3
4	9631	2001-12-31	4

4. Query the table and report the average of asset for each bank.

```
SELECT id, AVG (asset) as Average_ASSET
FROM bank
Group by id
ORDER by id
```

	id integer	average_asset numeric
1	9	343588.500000000000
2	14	65475000.000000000000
3	28	13488.000000000000
4	35	440473.000000000000
5	39	197919.500000000000
6	41	106165.500000000000
7	43	12839.250000000000

5. Query the table and report the bank id who has the second largest asset for second quarter.

```
SELECT id, asset
FROM bank
WHERE date between '2001-04-01' and '2001-06-30'
order by asset desc
limit 1 OFFSET 1
```

	id integer	asset integer
1	628	412000000

6. Query the table and report the bank id whose equity is over 10% of its asset in the first quarter (hint: equity = asset-liability).

```
with A as
(select id, date, asset, liability, (asset - liability)
as equity
from bank)
select id, date, asset, equity
from A
WHERE date between
'2001-01-01' and '2001-03-31'
and equity > 0.1*asset
```

Data Output | Explain | Messages | Notifications

	id integer	date date	asset integer	equity integer
1	234	2001-03-31	33686	6169
2	23406	2001-03-31	1830000	310000
3	23420	2001-03-31	54152	8067
4	23422	2001-03-31	102902	13000
5	23433	2001-03-31	106618	12853
6	23468	2001-03-31	118850	67129
7	23472	2001-03-31	262317	221732

7. What is the average liability value for the banks whose first quarter asset value is higher than the average asset value of the first quarter. Complete this task in one query.

```
SELECT round(avg(liability))
from bank
where date between '2001-01-01' and '2001-03-31' and
        asset > (select avg(asset) from bank
                        where date between '2001-01-01' and '2001-03-31')
```

	round numeric
1	8955556