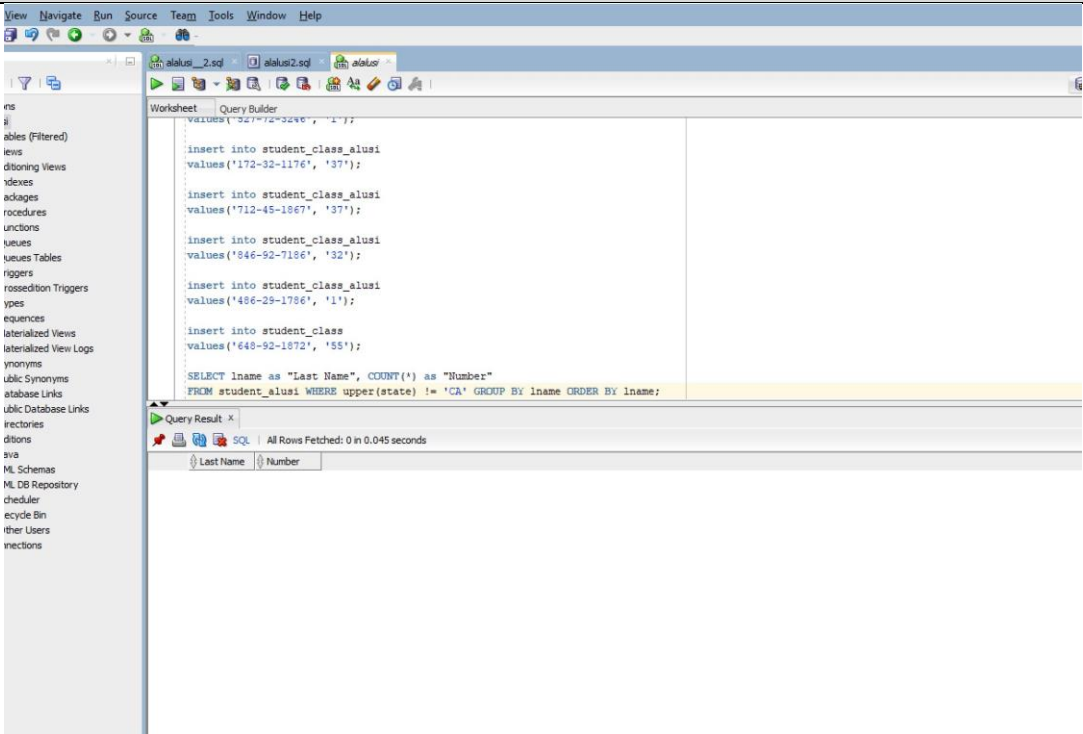


## **ASSIGNMENT 9** **Groupby**

Follow the same formatting guidelines as the previous homework assignment.

0	Copy and paste the contents of student.txt into your SQLPlus session. Rename the tables such that they are all prefixed with the first five letters of your lastname such as sabze_student. Make sure that the tables (student, classes and student_classes) are all renamed properly before you continue. You don't need to paste anything from SQLPlus for this question.
1	Write a single SQL statement that displays the number of of people with the same lastname. The results should contain the lastname and the count for each lastname. Exclude from the list all those who live in CA
	
2	Write a single SQL statement that displays the number of people living in each of the states. The results should display the state and the number of people living in each state. Exclude from the list all those who are living in cities that contains the letter 'h'

Worksheet Query Builder

```

insert into student_class_alusi
values('712-45-1867', '37');

insert into student_class_alusi
values('846-92-7186', '32');

insert into student_class_alusi
values('486-29-1786', '1');

insert into student_class
values('648-92-1872', '55');

SELECT lname as "Last Name", COUNT(*) as "Number"
FROM student_alusi WHERE upper(state) != 'CA' GROUP BY lname ORDER BY lname;

SELECT state as "State", COUNT(*) AS "Number"
FROM student_alusi WHERE upper(city) NOT LIKE '%H%' GROUP BY state ORDER BY state;

```

Query Result x

SQL | All Rows Fetched: 0 in 0.044 seconds

State	Number
-------	--------

- 3 Use a single SQL statement that displays the ssn and the number of classes a student is taking with the column heading "number of classes" where the number of classes is less than 2 , order by ssn descending.

Worksheet Query Builder

```

insert into student_class_alusi
values('846-92-7186', '32');

insert into student_class_alusi
values('486-29-1786', '1');

insert into student_class
values('648-92-1872', '55');

SELECT lname as "Last Name", COUNT(*) as "Number"
FROM student_alusi WHERE upper(state) != 'CA' GROUP BY lname ORDER BY lname;

SELECT state as "State", COUNT(*) AS "Number"
FROM student_alusi WHERE upper(city) NOT LIKE '%H%' GROUP BY state ORDER BY state;

SELECT ssn AS "SSN", COUNT(class_code) AS "number of classes"
FROM student_class_alusi GROUP BY ssn HAVING COUNT(class_code) < 2 ORDER BY ssn DESC;

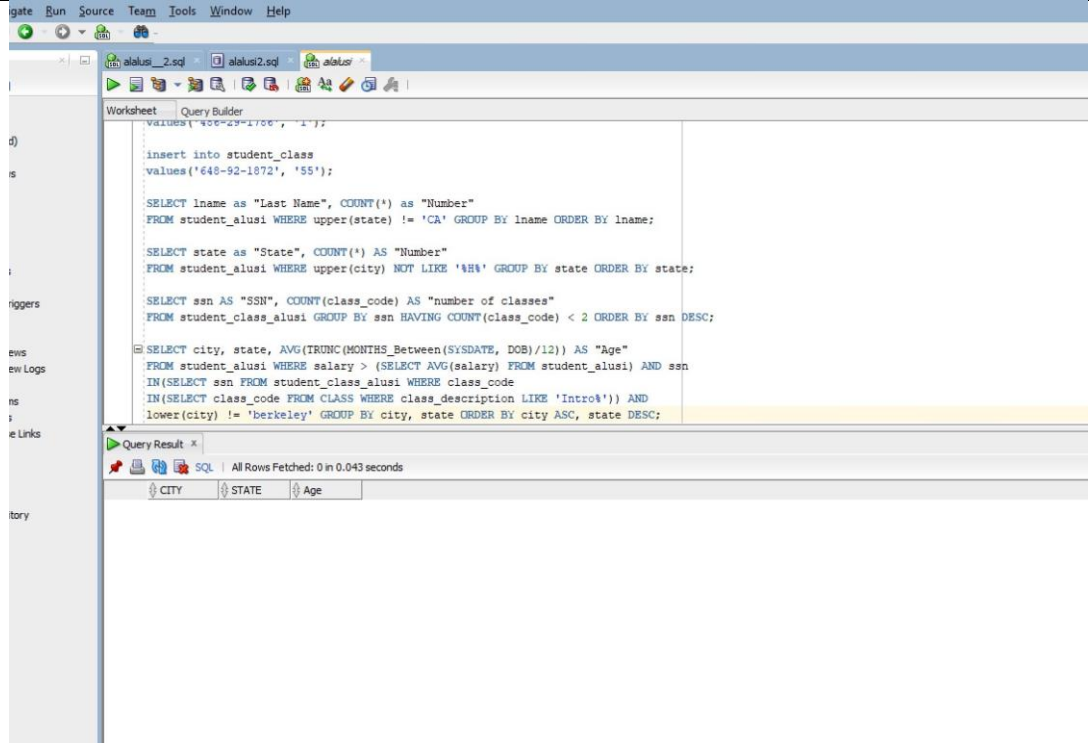
```

Query Result x

SQL | All Rows Fetched: 0 in 0.044 seconds

SSN	number of...
-----	--------------

- 4 Write a single SQL statement that displays the average age for each city, state combination for all students whose salary is greater than the average salary and are taking some kind of 'Intro' class. Also exclude the city 'Berkeley' from the list regardless of case. Sort by city in ascending order and state in descending order

	 <p>The screenshot shows a SQL IDE with a query builder. The query text is as follows:</p> <pre> VALUES('648-92-1872', '55');  INSERT INTO student_class VALUES('648-92-1872', '55');  SELECT lname as "Last Name", COUNT(*) as "Number" FROM student_alusi WHERE upper(state) != 'CA' GROUP BY lname ORDER BY lname;  SELECT state as "State", COUNT(*) AS "Number" FROM student_alusi WHERE upper(city) NOT LIKE '%H%' GROUP BY state ORDER BY state;  SELECT ssn AS "SSN", COUNT(class_code) AS "number of classes" FROM student_class_alusi GROUP BY ssn HAVING COUNT(class_code) &lt; 2 ORDER BY ssn DESC;  SELECT city, state, AVG(ROUND(MONTHS_Between(SYSDATE, DOB)/12)) AS "Age" FROM student_alusi WHERE salary &gt; (SELECT AVG(salary) FROM student_alusi) AND ssn IN(SELECT ssn FROM student_class_alusi WHERE class_code IN(SELECT class_code FROM CLASS WHERE class_description LIKE 'Intro%')) AND lower(city) != 'berkeley' GROUP BY city, state ORDER BY city ASC, state DESC; </pre> <p>The Query Result tab shows the following columns: CITY, STATE, Age.</p>
5	<p>Write a single SQL statement that displays the States in lower case along with the rounded average age for the different states with the alias name "average of ages" for all the students who are taking a class that contains 'principles' in its description regardless of case.</p>

alalusi\_2.sql x alalusi2.sql x alalusi x

Worksheet Query Builder

```
4 FROM student_alusi WHERE upper(state) != 'CA' GROUP BY lname ORDER BY lname;
5
6 SELECT state as "State", COUNT(*) AS "Number"
7 FROM student_alusi WHERE upper(city) NOT LIKE '%H%' GROUP BY state ORDER BY state;
8
9 SELECT ssn AS "SSN", COUNT(class_code) AS "number of classes"
10 FROM student_class_alusi GROUP BY ssn HAVING COUNT(class_code) < 2 ORDER BY ssn DESC;
11
12 SELECT city, state, AVG(TRUNC(MONTHS_Between(SYSDATE, DOB)/12)) AS "Age"
13 FROM student_alusi WHERE salary > (SELECT AVG(salary) FROM student_alusi) AND ssn
14 IN (SELECT ssn FROM student_class_alusi WHERE class_code
15 IN (SELECT class_code FROM CLASS WHERE class_description LIKE 'Intro%')) AND
16 lower(city) != 'berkeley' GROUP BY city, state ORDER BY city ASC, state DESC;
17
18 SELECT lower(state) AS "states", round(AVG(trunc(months_between(SYSDATE, dob)/12))) AS "average of ages"
19 FROM student_alusi WHERE ssn
20 IN (SELECT ssn FROM student_class_alusi WHERE class_code
21 IN (SELECT class_code FROM class_alusi WHERE lower(class_description) like '%principles'))
22 GROUP BY state ORDER BY state;
```

Query Result x

SQL | All Rows Fetched: 0 in 0.048 seconds

states	average o...
--------	--------------