

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																								
	<pre>SELECT lname "Last Name", COUNT(lname) "Number of People" FROM chave_student WHERE UPPER(state) != 'CA' GROUP BY lname ORDER BY lname;</pre> <table><tr><th></th><th>Last Name</th><th>Number of People</th></tr><tr><td>1</td><td>Al</td><td>1</td></tr><tr><td>2</td><td>Blotchett-Halls</td><td>1</td></tr><tr><td>3</td><td>Greenr</td><td>1</td></tr><tr><td>4</td><td>Greene</td><td>1</td></tr><tr><td>5</td><td>Gringlesby</td><td>1</td></tr><tr><td>6</td><td>White</td><td>1</td></tr><tr><td>7</td><td>del Castillo</td><td>1</td></tr></table>		Last Name	Number of People	1	Al	1	2	Blotchett-Halls	1	3	Greenr	1	4	Greene	1	5	Gringlesby	1	6	White	1	7	del Castillo	1
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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'

```
SELECT state, COUNT(state) "Number of People"
FROM chavestudent
WHERE NOT(LOWER(city) LIKE '%h%')
GROUP BY state
ORDER BY state;
```

	STATE	Number of People
1	CA	8
2	MI	1
3	NY	1
4	OR	1
5	UT	1
6	ma	1

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.

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

	SSN	number of classes
1	846-92-7186	1
2	712-45-1867	1
3	672-71-3249	1
4	648-92-1872	1
5	527-72-3246	1
6	486-29-1786	1
7	472-27-2349	1
8	427-17-2319	1
9	409-56-7008	1
10	267-41-2394	1
11	213-46-8915	1
12	172-32-1176	1

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																				
	<pre>SELECT city, state, AVG(TRUNC(MONTHS_BETWEEN(SYSDATE,dob)/12)) "Age" FROM chavestudent WHERE salary > (SELECT AVG(salary) FROM chavestudent) AND ssn IN (SELECT ssn from chavestudentclass WHERE class_code IN (SELECT class_code FROM chavaclass WHERE UPPER(class_description) LIKE 'INTRO%')) AND UPPER(city) != 'BERKELEY' GROUP BY city,state ORDER BY city ASC, state DESC;</pre> <table><thead><tr><th></th><th>CITY</th><th>STATE</th><th>Age</th></tr></thead><tbody><tr><td>1</td><td>Covelo</td><td>NY</td><td>25</td></tr><tr><td>2</td><td>Palo Alto</td><td>CA</td><td>28</td></tr><tr><td>3</td><td>San Jose</td><td>CA</td><td>26</td></tr><tr><td>4</td><td>Walnut Creek</td><td>CA</td><td>27</td></tr></tbody></table>		CITY	STATE	Age	1	Covelo	NY	25	2	Palo Alto	CA	28	3	San Jose	CA	26	4	Walnut Creek	CA	27
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5	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.																				
	<pre>SELECT LOWER(state) "States", ROUND(AVG(TRUNC(MONTHS_BETWEEN(SYSDATE,dob)/12))) "average of ages" FROM chavestudent WHERE ssn IN (SELECT ssn FROM chavestudentclass WHERE class_code IN (SELECT class_code FROM chavaclass WHERE LOWER(class_description) LIKE '%principles')) GROUP BY LOWER(state) ORDER BY LOWER(state);</pre> <table><thead><tr><th></th><th>States</th><th>average of ages</th></tr></thead><tbody><tr><td>1</td><td>ca</td><td>27</td></tr></tbody></table>		States	average of ages	1	ca	27														
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