

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	<p>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</p>																
	<pre>82 83 SELECT lname, COUNT(*) AS number_of_people FROM student WHERE state != 'CA' GROUP BY lname; 84</pre> <table><thead><tr><th>LNAME</th><th>NUMBER_OF_PEOPLE</th></tr></thead><tbody><tr><td>Al</td><td>1</td></tr><tr><td>Blotchet-Halls</td><td>1</td></tr><tr><td>Greenr</td><td>1</td></tr><tr><td>Greene</td><td>1</td></tr><tr><td>Gringlesby</td><td>1</td></tr><tr><td>White</td><td>1</td></tr><tr><td>del Castillo</td><td>1</td></tr></tbody></table> <p>Download CSV 7 rows selected.</p>	LNAME	NUMBER_OF_PEOPLE	Al	1	Blotchet-Halls	1	Greenr	1	Greene	1	Gringlesby	1	White	1	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'

```
81 SELECT state, COUNT(*) AS number_of_people FROM student WHERE city NOT LIKE '%h%' GROUP BY state;
```

STATE	NUMBER_OF_PEOPLE
UT	1
MI	1
NY	1
OR	1
CA	8
ma	1

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6 rows selected.

- 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.

```
83  
84 SELECT ssn, COUNT(*) AS "number of classes" FROM student_class GROUP BY ssn HAVING COUNT(*) < 2 ORDER BY ssn DESC;
```

SSN	number of classes
846-92-7186	1
712-45-1867	1
672-71-3249	1
648-92-1872	1
527-72-3246	1
486-29-1786	1
472-27-2349	1
427-17-2319	1
409-56-7008	1
267-41-2394	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

```
86
87 SELECT city, state, AVG(MONTHS_BETWEEN(sysdate, dob)/12) AS average_age
88 FROM student WHERE salary > (SELECT AVG(SALARY) FROM student) AND
89 ssn IN (SELECT ssn FROM student_class WHERE class_code IN (SELECT class_code FROM class
90 WHERE class_description LIKE '%Intro%')) AND lower(city) NOT LIKE 'berkeley'
91 GROUP BY city, state ORDER BY city, state DESC;
```

CITY	STATE	AVERAGE_AGE
Covelo	NY	26.15948206018518518518518518518517
Palo Alto	CA	29.12991216771206690561529271206690561533
San Jose	CA	27.15948206018518518518518518518517
Walnut Creek	CA	28.1326003397550776583034647550776583035

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4 rows selected.

- 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.

```
93
94 SELECT lower(state) AS state, ROUND(AVG(MONTHS_BETWEEN(sysdate, dob)/12))
95 AS "average of ages" FROM student WHERE ssn IN (SELECT ssn FROM student_class
96 WHERE class_code IN (SELECT class_code FROM class WHERE lower(class_description)
97 LIKE '%principles%')) GROUP BY state;
```

STATE	average of ages
ca	28

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