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

```
169  select lname, COUNT(*) AS Hert_number_of_people FROM Hert_student WHERE state != 'CA' GROUP BY lname;
```

Query Result

SQL | All Rows Fetched: 7 in 0.046 seconds

	LNAME	HERT_NUMBER_OF_PEOPLE
1	Al	1
2	Blotchet-Halls	1
3	Greeenr	1
4	Greene	1
5	Gringlesby	1
6	White	1
7	del Castillo	1

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'

```
173  SELECT state, COUNT(*) AS Hert_number_of_people FROM Hert_student WHERE city NOT LIKE '%h%' GROUP BY state;
```

Query Result

SQL | All Rows Fetched: 6 in 0.042 seconds

	STATE	HERT_NUMBER_OF_PEOPLE
1	UT	1
2	MI	1
3	NY	1
4	OR	1
5	CA	8
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.

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

Query Result

SQL | All Rows Fetched: 12 in 0.034 seconds

	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

```
179 SELECT city, state, AVG(months_between(sysdate, dob)/12) AS average_age
180 FROM Hert_student WHERE salary > (SELECT AVG(SALARY) from student) and
181 ssn IN(SELECT ssn FROM Hert_student_class WHERE class_code IN(SELECT class_code FROM Hert_class
182 WHERE class_description like '%Intro%')) AND lower(city) NOT LIKE 'berkeley'
183 GROUP BY city, state ORDER BY city, state DESC;
```

Query Result

SQL | All Rows Fetched: 3 in 0.078 seconds

	CITY	STATE	AVERAGE_AGE
1	Covelo	NY	27.733907743428912783751493428912783751 5
2	San Jose	CA	28.733907743428912783751493428912783751 5
3	Walnut Creek	CA	29.707026022998805256869772998805256869 75

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.

```
186 SELECT lower(state) AS state, ROUND(AVG(MONTHS_BETWEEN(sysdate, dob)/12))
187 AS "average of ages" FROM Hert_student WHERE ssn IN(SELECT ssn FROM Hert_student_class
188 WHERE class_code IN (SELECT class_code FROM Hert_class WHERE lower(class_description)
189 LIKE '%principles%')) GROUP BY state;
```

Query Result

SQL | All Rows Fetched: 1 in 0.037 seconds

	STATE	average of ages
1	ca	30