ASSIGNMENT 8
Subqueries

Follow the same formatting guidelines as the previous homework assignment.

YOU must use subqueries. Do not put any codes in your SQL statements. When pasting your results, just provide the first five rows of output if your result set exceeds five rows

1	**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, class and student_class) are all renamed properly before you continue. You don't need to paste anything from SQLPlus for this question.**
1	Using a single SQL statement display fname,lname of all the students who are taking **Database Programming** regardless of case.

```
SELECT fname "First Name", lname "Last Name"
FROM chave_student
WHERE ssn IN
  (SELECT ssn
   FROM chave_student_class
   WHERE class_code =
    (SELECT class_code
     FROM chave_class
     WHERE LOWER(class_description)='database programming'));
```

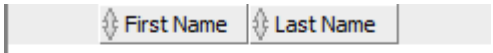
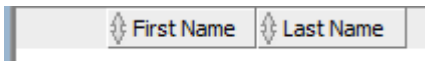
	First Name	Last Name
1	Johnson	White
2	Abraham	Bennet
3	Innes	del Castillo

2	Using a single SQL statement display all the rows from the **student_class** table where class description is not null

```
SELECT ssn, class_code "Class Code"
FROM chave_student_class
WHERE class_code IN
  (SELECT class_code
   FROM chave_class
   WHERE class_description IS NOT NULL);
```

	SSN	Class Code
1	172-32-1176	37
2	213-46-8915	32
3	267-41-2394	34
4	409-56-7008	37
5	427-17-2319	34

NOTE: Only the first 5 rows of the output are shown

3	Using a single SQL statement display fname, lname of all the students whose first name is **anything except** John, Jack or Bob. and are taking the operating systems class and their phone number is null
	`` SELECT fname "First Name", lname "Last Name" FROM chave_student WHERE INITCAP(fname) NOT IN ('John','Jack','Bob') AND phone IS NULL AND ssn IN (SELECT ssn FROM chave_student_class WHERE class_code = (SELECT class_code FROM chave_class WHERE LOWER(class_description) = 'operating systems')); ``` 
4	Using a single SQL statement display ssn, fname, lname, age/2 of all the students whose first name begins with the letter J and age is greater than 25 and are taking any class that contains '**Intro'** in its description (Have to convert the dob into a number). Order the results by age/2 in descending order. Use an alias for the order by clause
	`` SELECT ssn, fname "First Name", lname "Last Name", (TRUNC(MONTHS_BETWEEN(SYSDATE,dob)/12))/2 "Age" FROM chave_student WHERE INITCAP(fname) LIKE 'J%' AND (TRUNC(MONTHS_BETWEEN(SYSDATE,dob)/12)) > 25 AND ssn IN (SELECT ssn FROM chave_student_class WHERE class_code IN (SELECT class_code FROM chave_class WHERE INITCAP(class_description) LIKE 'Intro%')) ORDER BY "Age" DESC; ``` 
5	Using a single SQL statement display fname, lname from the **student** table where last name contains the letters 'nn' (e.g. Benny, Bonny, Sonny) and is enrolled in any class that contains the letter 'h' in its description regardless of case. Order the results by lname. When using order by use the position and not the name of the column
	`` SELECT fname "First Name", lname "Last Name" FROM chave_student WHERE LOWER(lname) LIKE '%nn%' AND ssn IN (SELECT ssn FROM chave_student_class WHERE class_code IN (SELECT class_code FROM chave_class WHERE LOWER(class_description) LIKE '%h%')) ORDER BY 2; ``` 

6	Using a single SQL statement, delete all the rows from the **class** table for all classes that are associated with students who live in Sacramento and earn less than 15000 (NOTE: you are deleting from the class table)

```
DELETE FROM chave_class WHERE class_code IN
   (SELECT class_code
    FROM chave_student_class
    WHERE ssn IN
      (SELECT ssn
       FROM chave_student
       WHERE UPPER(city) = 'SACRAMENTO' AND salary < 15000));
```

```
0 rows deleted.
```

7	Using a single SQL statement use a combination of **create and select** to create a new table called class2 that contains the list of all the classes that are taken by students who are older than 30 years old

```
DROP TABLE chave_class2;
CREATE TABLE chave_class2 AS SELECT class_description
FROM chave_class
WHERE class_code IN
   (SELECT class_code
    FROM chave_student_class
    WHERE ssn IN
      (SELECT ssn
       FROM chave_student
       WHERE (TRUNC(MONTHS_BETWEEN(SYSDATE,dob)/12)) > 30));
SELECT * FROM chave_class2;
```

```
table CHAVE_CLASS2 created.
```

	CLASS_DESCRIPTION
1	(null)
2	Introduction to C programming
3	Database Programming
4	(null)

8	Update the salary to 75000 for all students who are enrolled in ‘Database programming’ regardless of case and live in CA

```
UPDATE chave_student
SET salary=75000
WHERE ssn IN
   (SELECT ssn
    FROM chave_student_class
    WHERE class_code =
      (SELECT class_code
       FROM chave_class
       WHERE LOWER(class_description) = 'database programming' AND UPPER(state) = 'CA'));
```

```
1 rows updated.
```