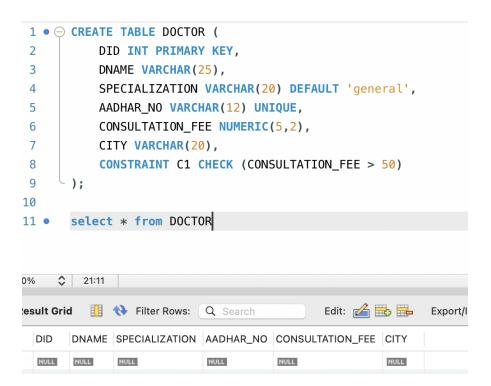
## Lab exercise - 2

Name: J Viswaksena Roll.No: AM.EN.U4AIE21035

## Consider the tables given below:

DOCTOR				
DID	INT	Primary key		
DNAME	VARCHAR(25)			
SPECIALIZATION	VARCHAR(20)	Default 'general'		
AADHAR_NO	VARCHAR(12)	unique		
CONSULTATION_FEE	NUMERIC(5,2)	Constraint C1 Check (Consultation_fee > 50)		
CITY	VARCHAR(20)			

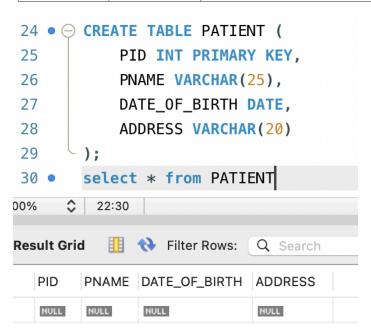


TREATMENT			
DID	INT	references doctor (DID) on delete cascade	
PID	INT	references patient (PID) on delete set null	
DIAGNOSIS	VARCHAR(30)	Not null	
TREAT_ID	INT		
TREAT_DATE	DATE		

```
13 • 

CREATE TABLE TREATMENT (
           DID INT,
14
15
           PID INT,
16
           DIAGNOSIS VARCHAR(30) NOT NULL,
           TREAT_ID INT,
17
18
           TREAT_DATE DATE,
           CONSTRAINT fk_doctor FOREIGN KEY (DID) REFERENCES DOCTOR (DID) ON DELETE CASCADE,
19
           CONSTRAINT fk_patient FOREIGN KEY (PID) REFERENCES PATIENT (PID) ON DELETE SET NULL
20
21
22 • select * from TREATMENT
00% 🗘 24:22
                                           Export:
Result Grid III 💎 Filter Rows: Q Search
  DID PID DIAGNOSIS TREAT_ID TREAT_DATE
```

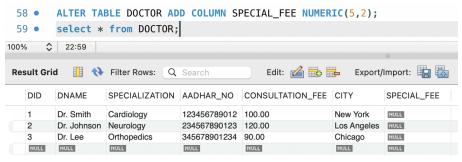
PATIENT			
PID	INT	Primary key	
PNAME	VARCHAR(25)		
DATE_OF_BIRTH	DATE		
ADDRESS	VARCHAR(20)		

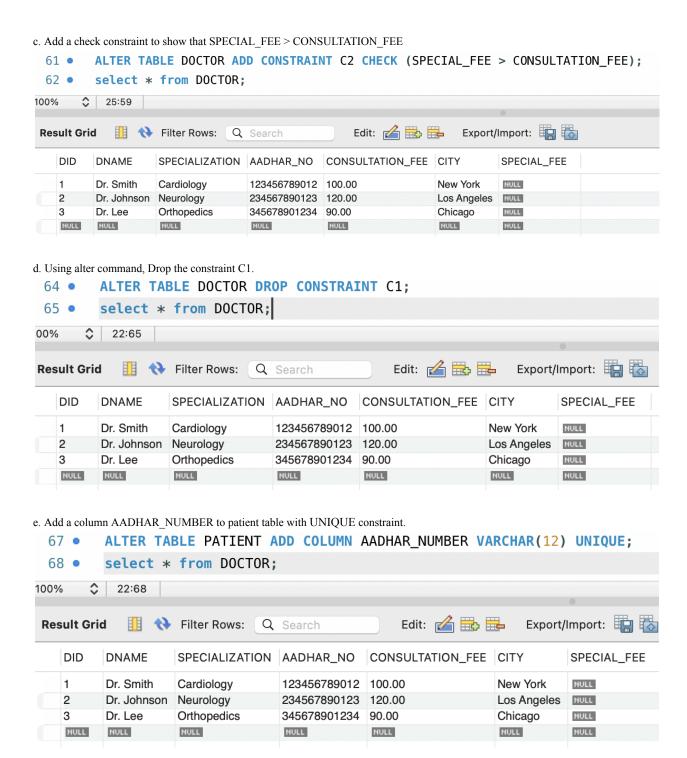


a. Create the tables as per the instructions given and insert suitable data.

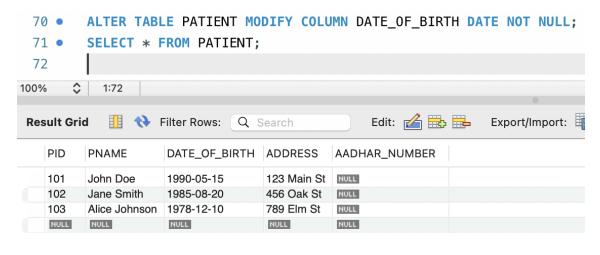


b. Add a column called SPECIAL\_FEE with datatype NUMERIC(5,2) to DOCTOR table





f. Add NOT NULL constraint to the DATE\_OF\_BIRTH column of PATIENT table.



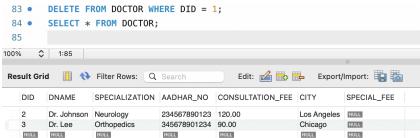
g. Add constraint CON1 UNIQUE(TREAT\_ID, TREAT\_DATE) in table TREATMENT

```
73 •
        ALTER TABLE TREATMENT ADD CONSTRAINT CON1 UNIQUE(TREAT_ID, TREAT_DATE);
 74 •
        SELECT * FROM TREATMENT;
 75
100%
      1:75
                                           Export:
DID
       PID
            DIAGNOSIS TREAT_ID TREAT_DATE
   1
        101
             Hypertension 1
                              2023-01-10
                              2023-02-20
   2
        102
             Migraine
                   2
   3
        103
             Fractured leg 3
                              2023-03-30
```

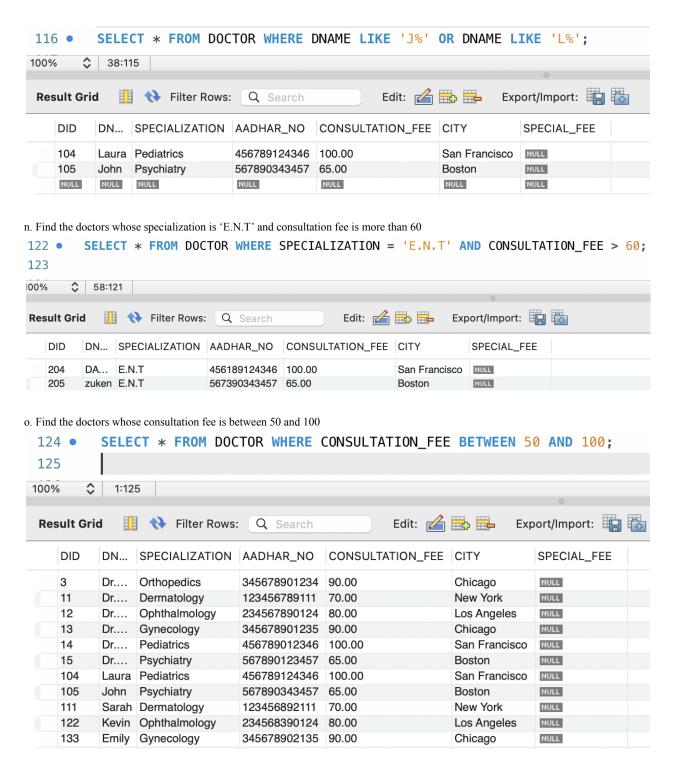
h. Insert suitable data to the table TREATMENT.

```
76 • INSERT INTO TREATMENT (DID, PID, DIAGNOSIS, TREAT_ID, TREAT_DATE)
77
       VALUES
      (1, 101, 'Fever', 4, '2023-04-05'),
78
     (2, 102, 'Allergy', 5, '2023-04-10'),
80
     (3, 103, 'Headache', 6, '2023-04-15');
81 •
       SELECT * FROM TREATMENT;
82
      00% 🗘 1:82
Export:
  DID PID DIAGNOSIS TREAT_ID TREAT_DATE
                             2023-01-10
            Hypertension 1
       102
            Migraine
                             2023-02-20
                             2023-03-30
       103
            Fractured leg 3
                             2023-04-05
       102
            Allergy
                             2023-04-10
                             2023-04-15
```

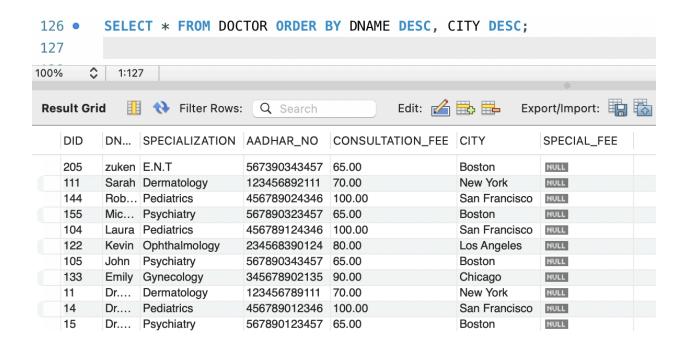
i. Delete a doctor from DOCTOR table to see the cascade result.



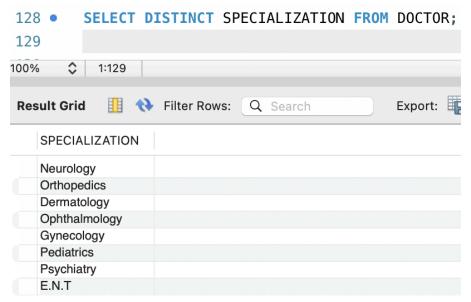
j. Display the name of the doctors whose consultation fees are even. 86 • SELECT DNAME FROM DOCTOR WHERE CONSULTATION\_FEE % 2 = 0; 87 • **SELECT** \* **FROM** DOCTOR; 88 00% 0 1:88 Edit: 🚄 🖶 🖶 **Result Grid** Filter Rows: Q Search Export/Import: DID CONSULTATION\_FEE CITY DN... SPECIALIZATION AADHAR\_NO SPECIAL\_FEE 2 Neurology 234567890123 120.00 Los Angeles Dr.... NULL 3 Dr.... Orthopedics 345678901234 90.00 Chicago NULL NULL NULL NULL NULL NULL NULL NULL k. Find the doctors whose name starts with 'K' and ends with 'n' SELECT \* FROM DOCTOR WHERE DNAME LIKE 'K%n'; 108 • 109 110 100% 69:98 Edit: 🚄 🎛 🖶 Export/Import: **Result Grid** Filter Rows: Q Search DID DN... SPECIALIZATION AADHAR\_NO CONSULTATION\_FEE CITY SPECIAL\_FEE 122 Kevin Ophthalmology 234568390124 80.00 Los Angeles NULL NULL NULL NULL NULL NULL NULL NULL 1. Find the patients whose name starts with 'A' and is followed by 2 characters only. 110 • SELECT \* FROM PATIENT WHERE PNAME LIKE 'A '; 111 0 100% 1:111 Edit: 🍊 🏗 Filter Rows: **Result Grid** Q Search DATE\_OF\_BIRTH PID PNAME **ADDRESS** AADHAR\_NUMBER 108 321 Pine St Amy 1992-06-05 NULL NULL NULL NULL NULL NULL



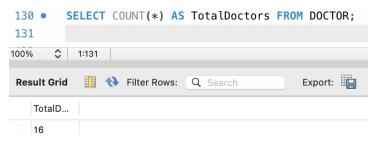
p. Arrange the doctors in the descending order of name as well as city.



q. List the specialization of doctors without duplicate values.



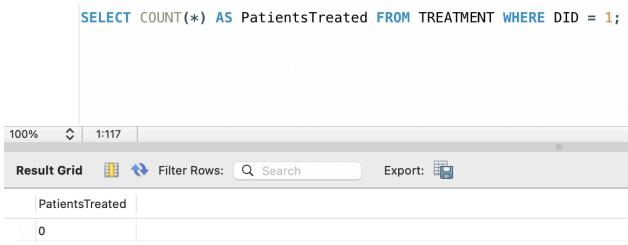
r. Find the total number of doctors.



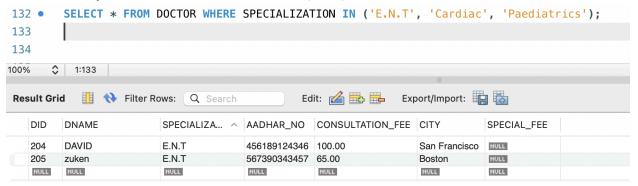
s. Find the number of doctors with 'E.N.T' specialization.



t. Find the number of patients who were treated by a doctor with ID = 1;



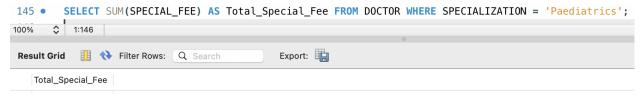
u. Find the doctors specialized in 'E.N.T', 'Cardiac', 'Paediatrics' (Use IN)



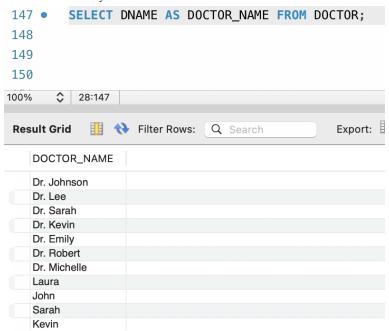
v. Find the average consultation fee, maximum consultation fee and minimum consultation fee of doctors.

```
134 • SELECT
135
             AVG(CONSULTATION_FEE) AS Average_Consultation_Fee,
136
             MAX(CONSULTATION_FEE) AS Maximum_Consultation_Fee,
            MIN(CONSULTATION_FEE) AS Minimum_Consultation_Fee
137
138
         FROM DOCTOR;
139
100%
      $ 1:139
Result Grid III 🛟 Filter Rows: Q Search
                                             Export:
   Average Consultation F... Maximum Consultation F... Minimum Consultation F...
   84.375000
                       120.00
                                            65.00
```

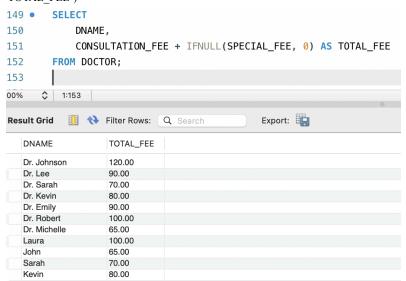
w. Find the sum of special fee of doctors with 'Paediatrics' specialization.



x. Display the name of doctors under a column with heading 'DOCTOR\_NAME' instead of DNAME which is the name of your column.

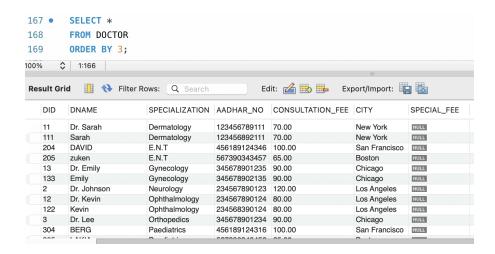


y. Display the total fee i.e. special fee  $\pm$  consultation fee, for each doctor. (Use heading 'TOTAL\_FEE')



z. Find the number of doctors with no adhar number given. (i.e. is null). SELECT COUNT(\*) AS Doctors\_With\_No\_Aadhar\_Number 154 • 155 FROM DOCTOR 156 WHERE AADHAR\_NO IS NULL; 157 100% 0 1:157 Export: **Result Grid** Filter Rows: Q Search Doctors\_With\_No\_Aadhar\_Num... 0 aa. Find the number of doctors with adhar number given. (i.e. is not null) SELECT COUNT(\*) AS Doctors\_With\_Aadhar\_Number 158 • 159 FROM DOCTOR WHERE AADHAR\_NO IS NOT NULL; 160 161 100% 1:161 Export: **Result Grid** 脯 Filter Rows: Q Search Doctors\_With\_Aadhar\_Num... 18 bb. Find the doctors whose CONSULTATION FEE is greater than 100 and SPECIALIZATION is Cardiac or coming from Kollam. 162 • **SELECT** \* 163 FROM DOCTOR WHERE CONSULTATION\_FEE > 100 164 AND (SPECIALIZATION = 'Cardiac' OR CITY = 'Kollam'); \$ 32:160 00% Edit: 🚄 誌 🧱 Export/Import: 🏭 📸 SPECIALIZATION AADHAR\_NO CONSULTATION\_FEE CITY SPECIAL\_FEE DNAME NULL

cc. Find the result of the query: select \* from doctor order by 3;



dd. Concatenate the name of the doctor with the specialization he/she is having. (e.g. Reghu is specialized in E.N.T.)

