**FINAL ASSIGNMENT OF DATA BASICS**

Repo link: [**Github Repo**](https://github.com/Saphall/Leapfrog_Data-Engineering_Assignments/tree/main/Week1/Weekend Assignment/Data Assignment)

**(1). Database Tables creation :**

**Create Database tables according to given ER diagram and details :**

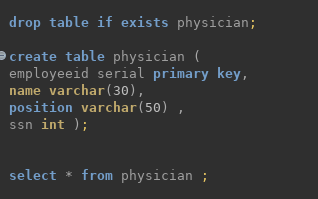
(included in ‘**create\_tables.sql**’ file)

————- CREATING REQUIRED DATABASE TABLES ———————

create database hospital;

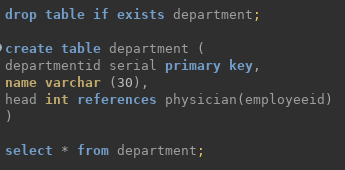
---------------------

**— ########### physician ########**



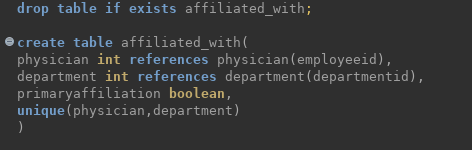
---------------------

**— ########### department ########**



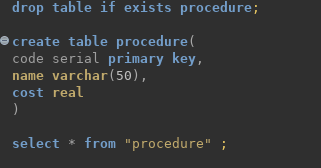
------------

**— ########### affiliated\_with ########**##



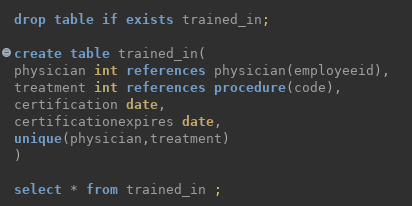
--------------------

**— ########### procedure ########**##



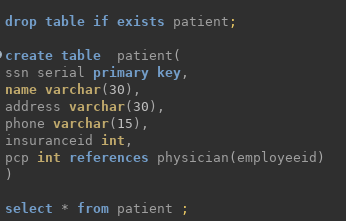
--------------

**— ########### trained\_in ########**##



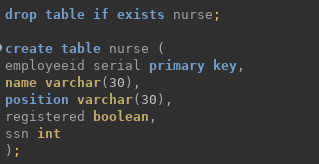
------------------

**— ########### patient ########**



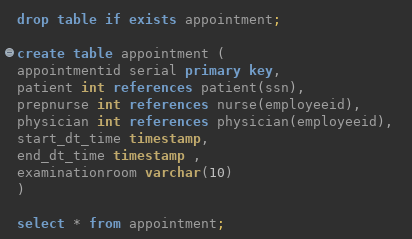
---------

**— ########### nurse ########**



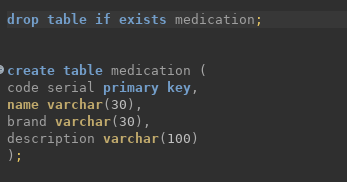
-----------------------

**— ########### appointment ########**



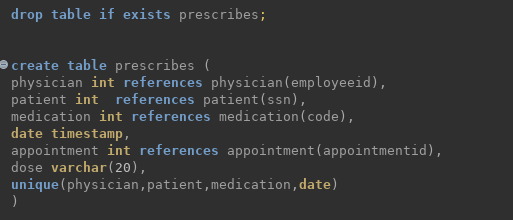
----------

**— ########### medication ########**



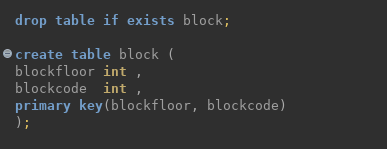
--------------

**— ########### prescribes ########**



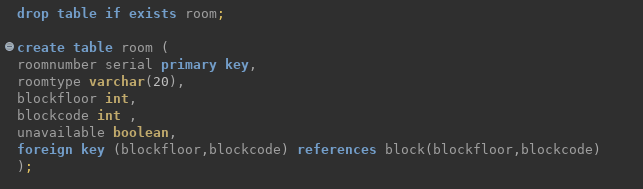
------------

**— ############# block ########**####



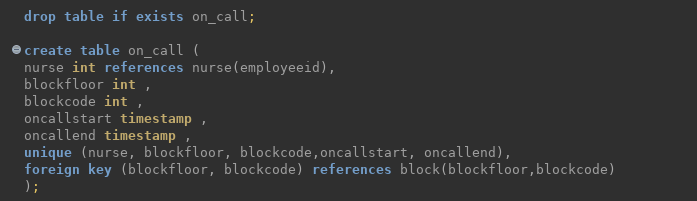
-------------------

**— ############### room ########**####



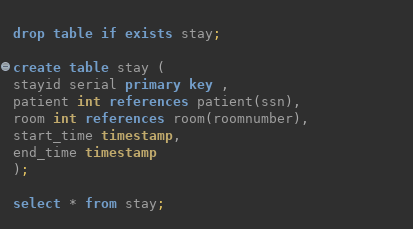
-----------------

**— ########### on\_call ########**



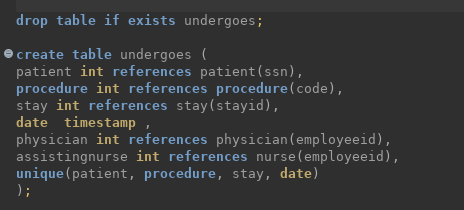
-----------------------------------

**— ########### stay ########**



---------------------------------------

**— ########### undergoes ########**

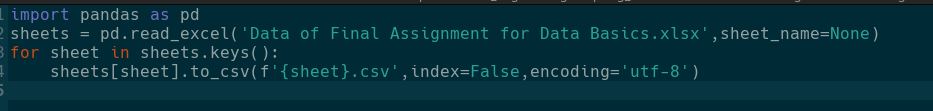


--------------------------------------

**(2). Data Load:**

Fields were included in ‘**Data of Final Assignment for Data Basics.xlsx**’ file. It contained tables in different sheets.

* First of all, I creates separate ‘**csv**’ files for each sheets with python script (saved as ‘**sheets\_to\_CSV.py**’ ) :



* All the Table data from each sheet were obtained in respective ‘**csv**’ format.
* The problem was integer values were changed to float values. eg. : ‘1’ was changed to ‘1.0’ in csv files. So, I replaces all “**.0**” values to empty with command:

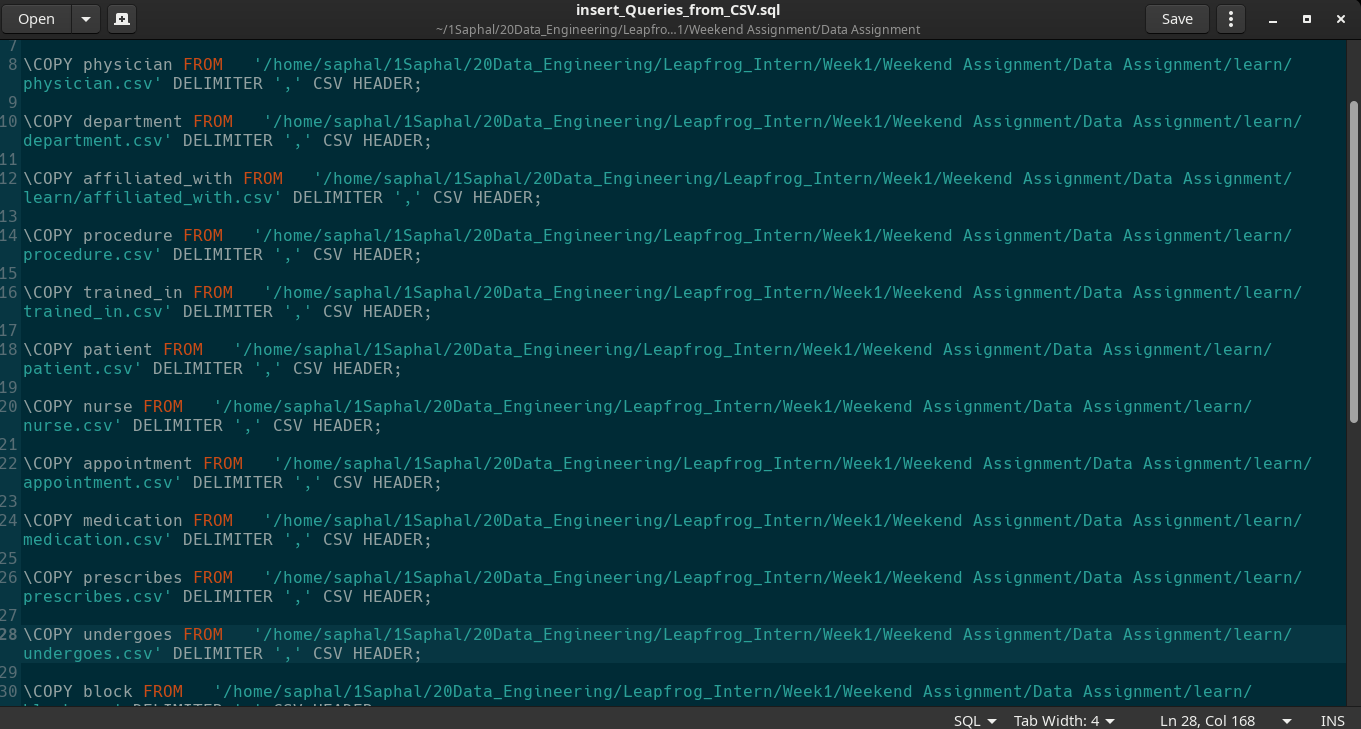


* Now I created ‘**insert\_Queries\_from\_CSV.sql**’ file which contains query to insert respective ‘**csv**’ data into tables.

This query file contains **\copy** command to operate from terminal.

i.e.

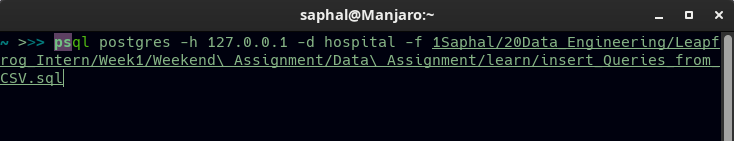
**\COPY TABLE\_NAME FROM 'PATH\_TO\_CSV\_FILE' DELIMITER ',' CSV HEADER;**



* Then I used this file to insert into tables using command :

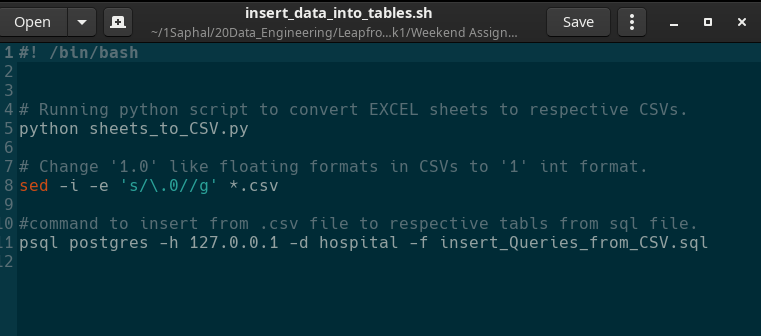
**psql postgres -h 127.0.0.1 -d hospital -f insert\_Queries\_from\_CSV.sql**

where **postgres**: role, **hospital**: database , **insert\_Queries\_from\_CSV.sql**: sql file containing insert commands



**Automated Task for future:**

* Now all these task could be run at once, so ‘**insert\_data\_into\_tables.sh**’ bash file did all of the tasks.



* Changed permission of this file :

**‘chmod +777 insert\_data\_into\_tables.sh’**

* Run this file as “**./insert\_data\_into\_tables.sh**” which does following tasks:

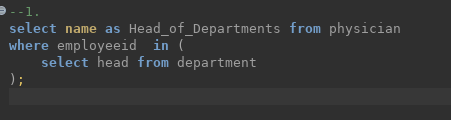
**1.** Convert Excel sheets to respective ‘csv’ files.

**2**. Integer values were changed to float values. eg. : ‘1’ was changed to ‘1.0’ in csv files. So, it replaces all “**.0**” values to empty.

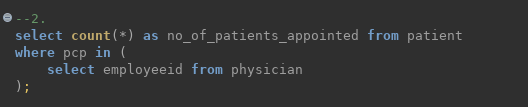
**3.** Insert these ‘csv’ files into respective database tables.

**(2). Question Solutions :**

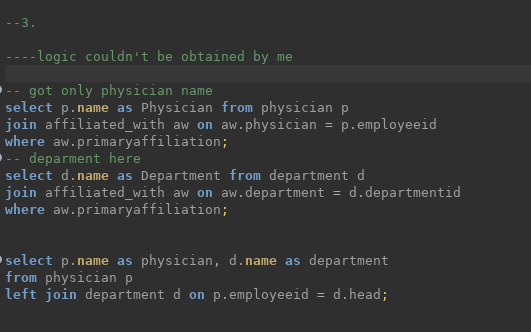
1. ans:



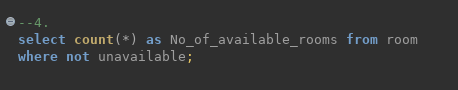
1. ans:



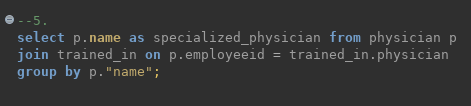
1. ans:



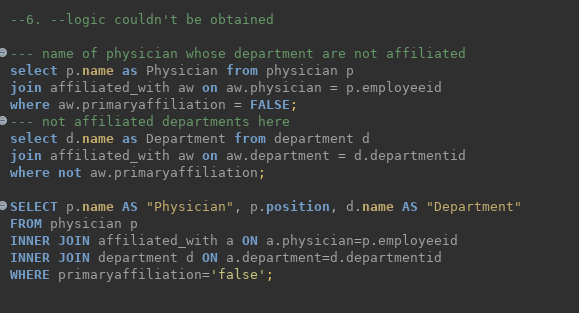
1. ans:



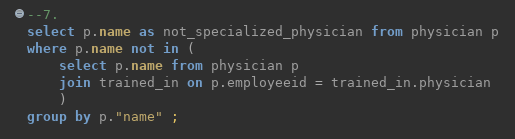
1. ans:



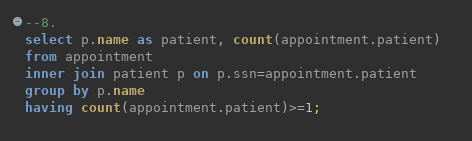
1. ans:



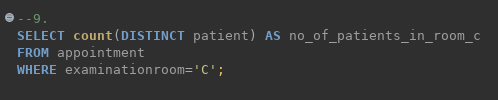
1. ans:



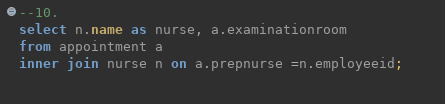
1. ans:



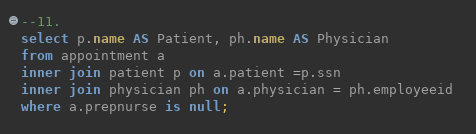
1. ans:



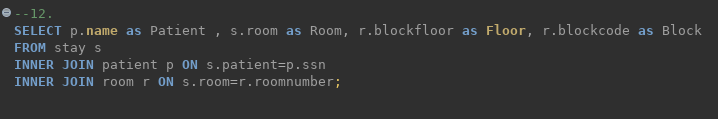
1. ans:



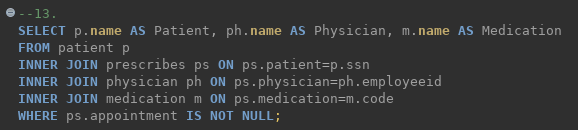
1. ans:



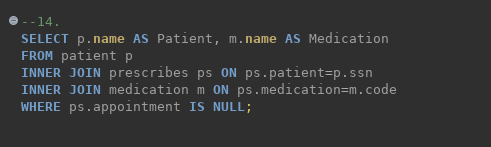
1. ans:



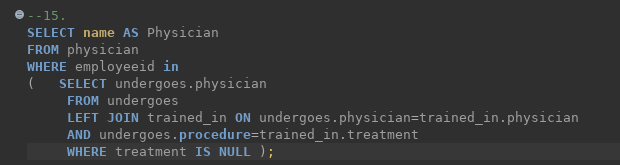
1. ans:



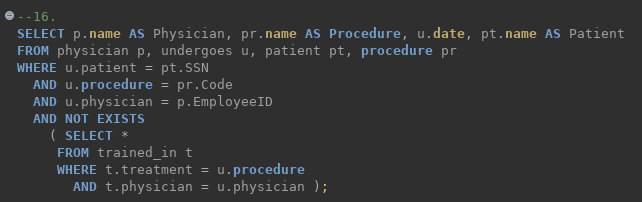
1. ans:



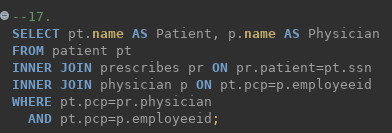
1. ans:



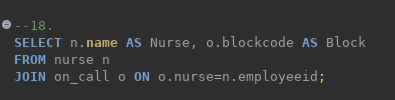
1. ans:



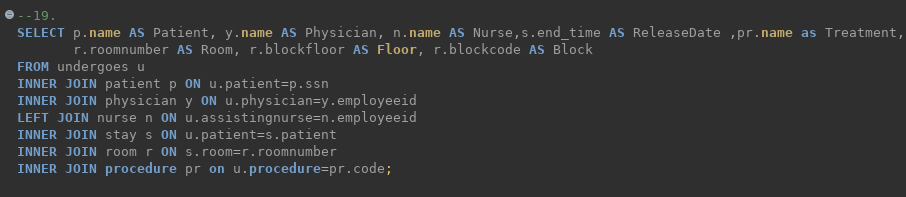
1. ans:



1. ans:



1. ans:



1. ans:

