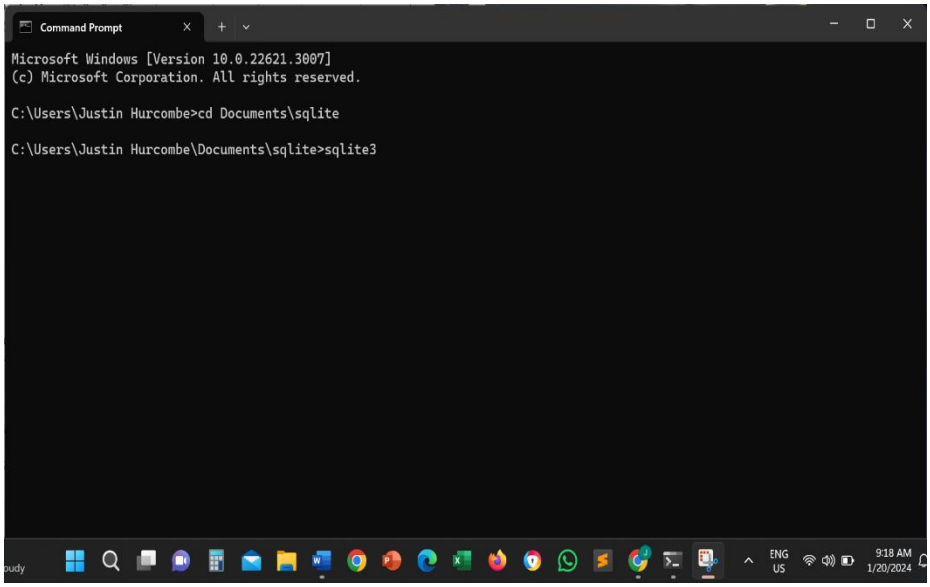
Justin Hurcombe

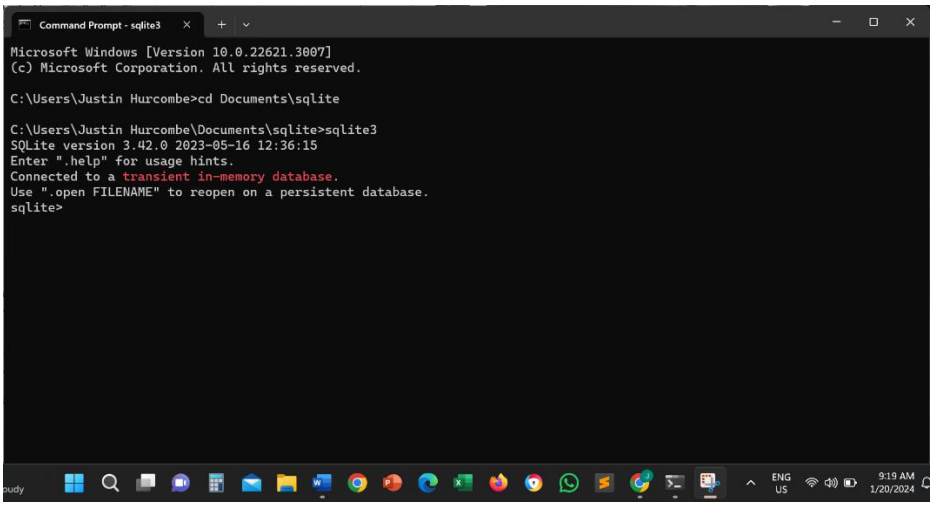
MSIS-2503: Fundamentals of SQL

Assignment #1

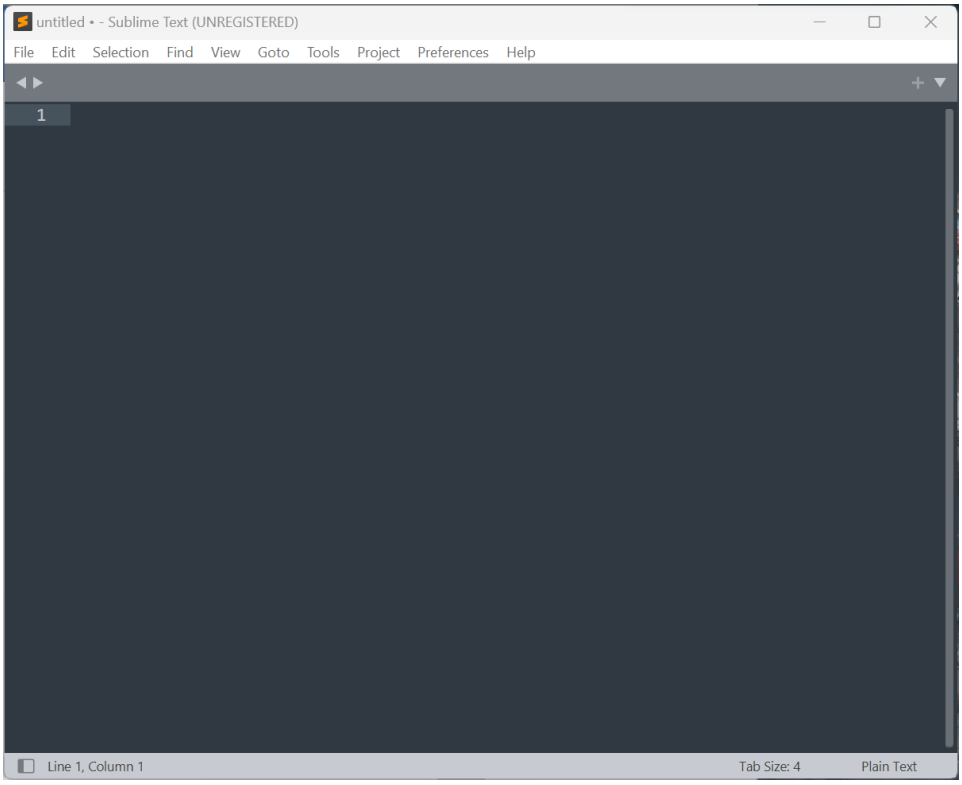
1/27/24

1. Set up environment properly
    a. Make sure SQLITE is installed and are able to run “sqlite3” to start the interactive environment.

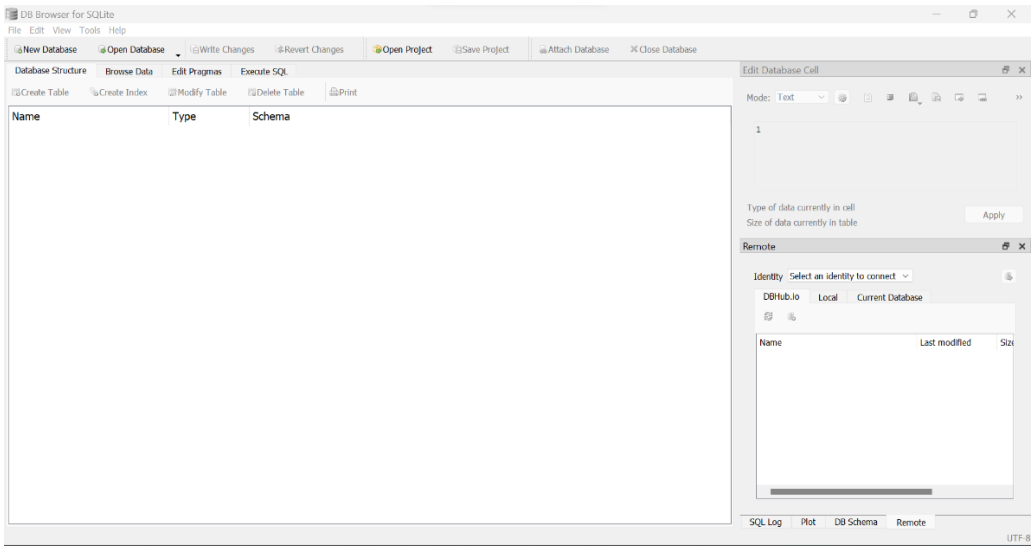




b. Choose your own editor



c. Install DB Browser

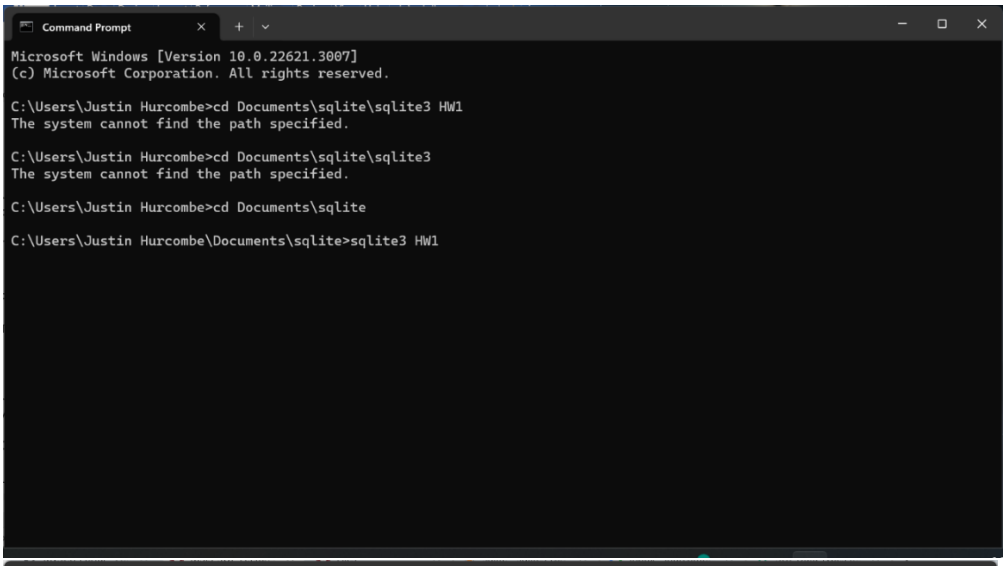


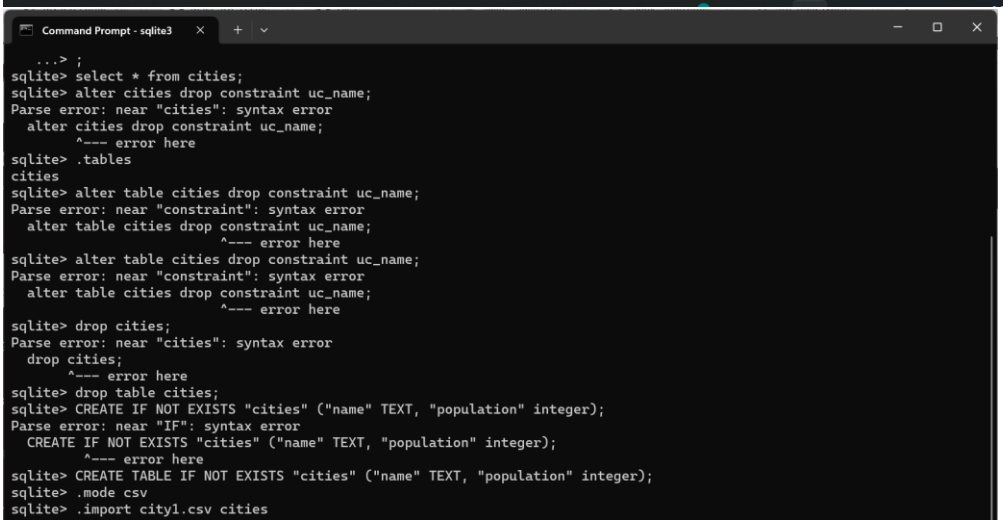
2. Use sqlite3 to create database and import CSV data into table (Name the database of your preference).

Two CSV files are provided for different city information.

In sqlite3, first use “CREATE TABLE IF NOT EXISTS” statement to create a “cities” table with two columns. Check CSV file for the name of the two columns. You decide the type of the columns.

Then follow my lecture video to import data in these two files in this “cities” table.





3. In sqlite3, check the table definition of this table.

```
Command Prompt - sqlite3
sqlite>
sqlite>
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sqlite>
sqlite>
sqlite>
sqlite> PRAGMA table_info("cities");
0,name,TEXT,0,,0
1,population,INTEGER,0,,0
sqlite> .schema cities
CREATE TABLE IF NOT EXISTS "cities" ("name" TEXT, "population" i
nteger);
sqlite>
```

4. Use "SELECT" sql statement to check content of the table (you can specify different conditions if you know how to).

```
Command Prompt - sqlite3
sqlite> .mode csv
sqlite> .import city1.csv cities
sqlite> .schema cities
CREATE TABLE IF NOT EXISTS "cities" ("name" TEXT, "population" i
nteger);
sqlite> PRAGMA table_info (cities);
0,name,TEXT,0,,0
1,population,INTEGER,0,,0
sqlite> select * from cities;
name,population
Abilene,115930
Akron,217074
Albany,93994
Albuquerque,448607
Alexandria,128283
Allentown,106632
Amarillo,173627
Anaheim,328014
Anchorage,260283
"Ann Arbor",114024
Arden-Arcade,92040
Arlington,332969
Arlington,174838
Arvada,102153
"Athens-Clarke County",101489
Atlanta,416474
"Augusta-Richmond County",199775
Aurora,276393
Aurora,142990
Austin,656562
Bakersfield,247057
```

```
Command Prompt - sqlite3
"San Buenaventura",100916
"San Diego",1223400
"San Francisco",776733
"San Jose",894943
"San Mateo",91799
Sandy,101853
"Santa Ana",337977
"Santa Clara",102361
"Santa Clarita",151088
"Santa Monica",91084
"Santa Rosa",147595
Savannah,131510
Scottsdale,202705
Seattle,563374
Shreveport,200145
"Simi Valley",111351
"Sioux Falls",123975
"South Bend",107789
Spokane,195629
Springfield,152082
Springfield,151580
Springfield,111454
Stamford,117083
"Sterling Heights",124471
Stockton,243771
Sunnyvale,131760
"Sunrise Manor",95362
Syracuse,147306
sqlite> select count(*) from cities;
249
sqlite>
```

Do you see anything wrong with the data in the table?

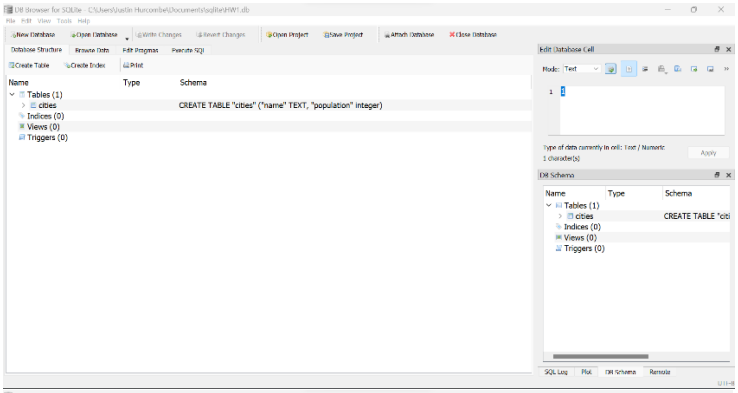
There are several duplicates in the names field of the table (for example, Arlington appears twice), where there are several rows with the same name but different populations.

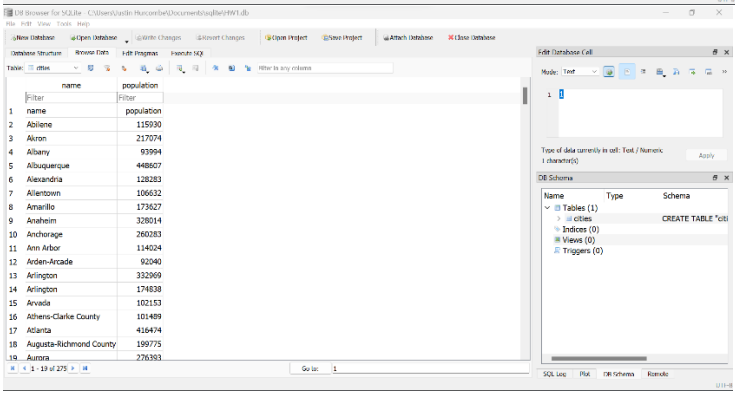
5. Use “INSERT” sql statement to insert other cities data into the table use SELECT to check your insertion result.

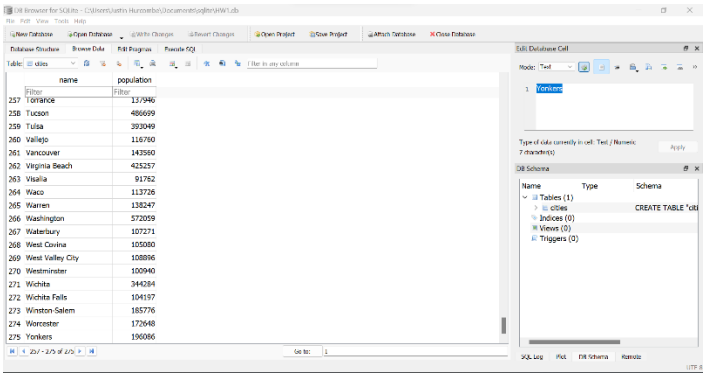
```
sqlite> INSERT INTO cities (name, population) VALUES ('Tacoma','
193556'),('Tallahassee','150624'),('Tampa','303447'),('Tempe','1
58625'),('Thousand Oaks','117005'),('Toledo','313619'),('Topeka'
,'122377'),('Torrance','137946'),('Tucson','486699'),('Tulsa','3
93049'),('Vallejo','116760'),('Vancouver','143560'),('Virginia B
each','425257'),('Visalia','91762'),('Waco','113726'),('Warren',
'138247'),('Washington','572059'),('Waterbury','107271'),('West
Covina','105080'),('West Valley City','108896'),('Westminster','
100940'),('Wichita','344284'),('Wichita Falls','104197'),('Winst
on-Salem','185776'),('Worcester','172648'),('Yonkers','196086');

sqlite>
```

```
Command Prompt - sqlite3
Stockton|243771
Sunnyvale|131760
Sunrise Manor|95362
Syracuse|147306
Tacoma|193556
Tallahassee|150624
Tampa|303447
Tempe|158625
Thousand Oaks|117005
Toledo|313619
Topeka|122377
Torrance|137946
Tucson|486699
Tulsa|393049
Vallejo|116760
Vancouver|143560
Virginia Beach|425257
Visalia|91762
Waco|113726
Warren|138247
Washington|572059
Waterbury|107271
West Covina|105080
West Valley City|108896
Westminster|100940
Wichita|344284
Wichita Falls|104197
Winston-Salem|185776
Worcester|172648
Yonkers|196086
sqlite>
```

6. Use DB Browser to open your table and check out the table structure and table data.







Save your screen activity (command you typed and execution result) into a file including screen shot of DB Browser image and save to PDF file. submit this PDF file.