

Programming Exercise 07

Reporting and Analyzing Data

T-SQL Fundamentals

You may use SQL Server, SQLite, or any other database system to complete this exercise. First, find an interesting data file. Download the data file in CSV format (or another format if you know what you are doing). Sources for interesting data files include

- <https://www.data.gov/>
- <https://www.archives.gov/data/files/>
- https://www.cdc.gov/nchs/data_access/ftp_data.htm
- <http://www.census.gov/data.html>
- <https://www.cia.gov/library/publications/the-world-factbook/>
- <http://www.ncdc.noaa.gov/data-access/quick-links#loc-clim>
- <https://www.google.com/publicdata/directory>
- <http://www.freebase.com/>
- <http://thearda.com>
- <https://fisher.osu.edu/academic-departments/department-finance>

Complete the following tasks.

1. Create an appropriate table schema for our data file.
2. Clean the data as necessary.
3. Insert the CSV data into the table you just created.
4. Delete the column that contains data that you will not use
5. Delete the first record from your table using the output clause. This is the header.
6. Alter the table by adding the column you created as a primary key column with a new constraint.
7. Bring the data up to date by updating the last row as necessary. Use the output clause.
8. Bring the data up to date by adding new rows if necessary. Use the output clause.
9. Design and implement at least four analyses and produce reports for each analysis. Use SQL to do this.