CS621 Week 6
Updates and Deletes in PostgreSQL PostGIS.
SELF STUDY ASSIGNMENT.

On Moodle (Week 4) you will find an SQL file called GreaterManchesterCrime.sql which is a geolocated listing of ALL crimes detected and investigated by the Greater Manchester Police Force in the United Kingdom, during August 2018. The data has been downloaded from here [https://data.police.uk/data/] and prepared for you. By using the SQL and associated techniques presented in CS621 Week 6 you should attempt to answer the following questions based on this dataset.

In the first instance you will need to execute the entire SQL (GreaterManchesterCrime.sql) in order to create the corresponding database table. There are 6 columns. The fields/columns are as follows

CrimeID – this is a randomly generated text string to uniquely indentify each crime record,

CrimeTS – this is the timestamp of the recorded crime or activity

Location – this is the text description of the area in Greater Manchester where the crime occured,

LSOA – this is text. Lower Layer Super Output Area (LSOA) is a GEOGRAPHIC AREA. Lower Layer Super Output Areas are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales,

Type – this is text. It is the type or class of crime,

Outcome – this is text. It is an indication of the outcome of the police investigation.

TheGeom – this is the geographical location in WGS 84 (EPSG:4326) Longitude Latitude of where the crime was committed.

If you make a mistake when working with your queries (particulary DELETE and UPDATE please remember that you can simply re-execute your SQL file to recreate a new/fresh copy of the database table).

QUESTION 1: Write an SQL query to delete any crime which was recorded as occuring in LSOA "Rochdale 012D".

QUESTION 2: Write an SQL query which updates the OUTCOME field of all crimes to 'No further investigation' where the crimeid field only contains digits in the blocks.

QUESTION 3: Due to an error in recording all crimes in LSOA Bolton 022E where the location contains cyril street must have their crime type column updated to

Shoplifting. The update statement must only update crime records where the type is not already Shoplifting.

QUESTION 4: Write a delete statement to remove all of the rows in the database which have the following criteria. The theGeom location is within 5KM of `St_GeomFromText('POINT(-2.234566 53.47924)',4326)` and the numerical total of the hour, minute and second of the crimeTS field is equal to 100. You are STRONGLY advised to write an SQL statement first before attempting this delete.

QUESTION 5: Write a delete statement which deletes all crimes which happened between 3am and 6am (inclusive) in the morning, any time in August.