Stored Programs 1

Professor HG Locklear
hlocklear@pace.edu

Tasks

- create and populate the synthetictargeting database using the provided files.

- Create the stored procedure as described. Your stored procedure must retrieve all required data using a cursor.

- Your .sql script should contain only your stored procedure code with any accompanying functions you create.

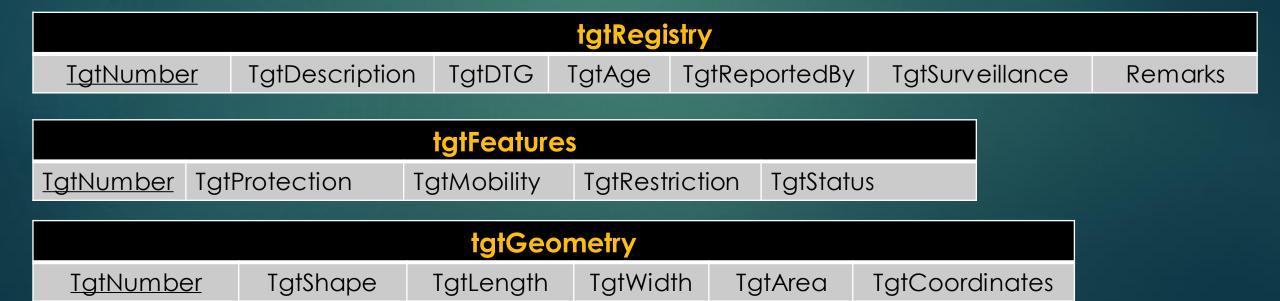- Submit your single *.sql* script at the submission link.

synthetictargeting Key Descriptions

- The following keys have special properties.

Key	Table	Type	Values/Formula
TgtAge	TgtRegistry	Generated Column	Difference in days between Sept 1, 2023, and the TgtDTG
TgtReportedBy	TgtRegistry	Enumeration	'AIR','GROUND','SATELLITE','INTEL'
TgtSurveillance	TgtRegistry	Enumeration	'CONTINUOUS','INTERMITTENT','NONE'
TgtProtection	TgtFeatures	Enumeration	'FORTIFIED','HARDENED','REINFORCED','SOFT'
TgtMobility	TgtFeatures	Enumeration	'STATIC','SEMI_STATIC','MOBILE','HIGHLY_MOBILE'
TgtRestriction	TgtFeatures	Enumeration	UNRESTRICTED','RESTRICTED','PROHIBITED'
TgtStatus	TgtFeatures	Enumeration	'ACTIVE','INACTIVE'
TgtShape	TgtGeometry	Enumeration	'POINT','AREA'
TgtArea	TgtGeometry	Generated Column	Product of TgtLength and TgtWidth

synthetictargeting Database Schema

tgtRegistry — HAS — **tgtFeatures**, **tgtGeometry**

tgtRegistry						
TgtNumber	TgtDescription	TgtDTG	TgtAge	TgtReportedBy	TgtSurveillance	Remarks

tgtFeatures				
TgtNumber	TgtProtection	TgtMobility	TgtRestriction	TgtStatus

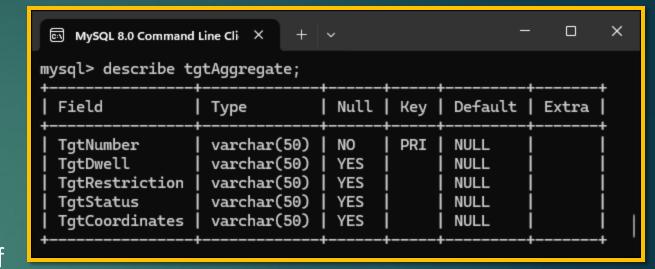| tgtGeometry					
TgtNumber	TgtShape	TgtLength	TgtWidth	TgtArea	TgtCoordinates

tgtConsolidation Stored Procedure

- Create the stored procedure tgtConsolidation that accepts <u>no parameters</u>.

- The stored procedure creates and displays the <u>first 20 rows</u> from the table TgtAggregate.

- The TgtAggegate table is a combination of formatted values from all the other tables in the synthetictargeting database.

- The TgtAggregate table contains <u>only</u> targets that have an <u>age less than</u> 180 and a <u>status</u> of Active

- The TgtAggregate table maintains referential integrity with the TgtRegistry table

```
mysql> describe tgtAggregate;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| TgtNumber      | varchar(50) | NO   | PRI | NULL    |       |
| TgtDwell       | varchar(50) | YES  |     | NULL    |       |
| TgtRestriction | varchar(50) | YES  |     | NULL    |       |
| TgtStatus      | varchar(50) | YES  |     | NULL    |       |
| TgtCoordinates | varchar(50) | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
```

TgtDwell is a formatted combination of the TgtDTG and TgtAge values.

TgtCoordinates is a formatted version of the TgtCoordinates of the TgtGeometry table.

Stored Procedure Expected Output

```
MySQL 8.0 Command Line Cli    ×    +    ∨                              —    □    ×

+------------+--------------------------+---------------+------------+----------------+
| TgtNumber  | TgtDwell                 | TgtRestriction| TgtStatus  | TgtCoordinates |
+------------+--------------------------+---------------+------------+----------------+
| T-1031951  | 2023-11-07 Days:  67     | PROHIBITED    | ACTIVE     | X:70 Y:78      |
| T-1041262  | 2023-10-01 Days:  30     | PROHIBITED    | ACTIVE     | X:41 Y:77      |
| T-1051547  | 2023-12-03 Days:  93     | RESTRICTED    | ACTIVE     | X:130 Y:22     |
| T-1051633  | 2023-12-02 Days:  92     | PROHIBITED    | ACTIVE     | X:179 Y:88     |
| T-1061611  | 2023-10-23 Days:  52     | RESTRICTED    | ACTIVE     | X:126 Y:14     |
| T-1081015  | 2023-12-13 Days:  103    | PROHIBITED    | ACTIVE     | X:175 Y:58     |
| T-1131414  | 2023-11-22 Days:  82     | PROHIBITED    | ACTIVE     | X:168 Y:62     |
| T-1181415  | 2023-11-07 Days:  67     | RESTRICTED    | ACTIVE     | X:161 Y:15     |
| T-1241585  | 2023-10-16 Days:  45     | PROHIBITED    | ACTIVE     | X:130 Y:31     |
| T-1251167  | 2023-11-03 Days:  63     | UNRESTRICTED  | ACTIVE     | X:182 Y:76     |
| T-1251380  | 2023-12-16 Days:  106    | UNRESTRICTED  | ACTIVE     | X:138 Y:14     |
| T-1291352  | 2023-11-18 Days:  78     | PROHIBITED    | ACTIVE     | X:25 Y:87      |
| T-1291949  | 2023-12-16 Days:  106    | UNRESTRICTED  | ACTIVE     | X:31 Y:66      |
| T-1301247  | 2023-12-16 Days:  106    | UNRESTRICTED  | ACTIVE     | X:198 Y:32     |
| T-1391056  | 2023-12-15 Days:  105    | UNRESTRICTED  | ACTIVE     | X:37 Y:85      |
| T-1411473  | 2023-11-04 Days:  64     | UNRESTRICTED  | ACTIVE     | X:89 Y:87      |
| T-1431279  | 2023-11-19 Days:  79     | PROHIBITED    | ACTIVE     | X:20 Y:34      |
| T-1441711  | 2023-11-19 Days:  79     | RESTRICTED    | ACTIVE     | X:85 Y:88      |
| T-1461153  | 2023-11-17 Days:  77     | UNRESTRICTED  | ACTIVE     | X:56 Y:39      |
| T-1511932  | 2023-11-12 Days:  72     | UNRESTRICTED  | ACTIVE     | X:73 Y:18      |
+------------+--------------------------+---------------+------------+----------------+
20 rows in set (0.56 sec)
```