

# Exercise

## CSC230 Database Technologies for Analytics

01 November 2021

Use the *northwoods-exercise.sql* script to create a database. Use that database for this exercise.

Write your answers in file with a name like *lberanek36-waterfall.sql* (replace “lberanek36” with your username) and place it in your home folder on our server.

Identify questions that you are answering with comments. For example. . .

```
/* Question 1 */
```

For questions that call for an answer in English, enclose answers in comments.

```
/* Question 99 */  
/*  
  Inserts some stuff and selects some stuff.  
*/
```

For questions that call for an answer in SQL, do not enclose answers in comments but instead write code that will execute when I examine your solutions.

```
/* Question 101 */  
SELECT * FROM trip;
```

---

1. What does this do?

```

INSERT INTO fall_description (id, name, description)
    SELECT id, name, description FROM upfall;

SELECT * FROM fall_description;

```

2. What does this do?

```

INSERT INTO fall_location (id, datum, zone, northing, easting)
    SELECT id, datum, zone, northing, easting FROM upfall;

SELECT * FROM fall_location;

```

3. What does this do?

```

SELECT name FROM upfall WHERE owner_id IS NOT NULL;

```

4. What does this do?

```

SELECT COUNT(*) FROM upfall WHERE owner_id IS NULL;

```

5. What does this do?

```

SELECT ROUND((MIN(easting) + MAX(easting))/2) AS x,
    ROUND((MIN(northing) + MAX(northing))/2) AS y
    FROM upfall;

```

6. What does this do?

```

SELECT name FROM upfall
    UNION
    SELECT name FROM new_falls ORDER BY NAME ASC;

```

7. What does this do?

```

SELECT f.name, o.name
    FROM upfall f INNER JOIN owner o ON f.owner_id = o.id;

```

8. Compose a query that will find all of the waterfalls in the *upfall* table that are on private land. Include the name of the waterfall, the name of the property owner, and the status of the property (“private”) in the result.

9. Compose a query that will find all of the waterfalls in the *upfall* table whose descriptions include the word “scenic.”

You will need to use a string function. You can find a list of the string functions that MySQL provides on the Web.

10. Compose a query that will find the names of all of the waterfalls that are on the tour that travels along U.S. Route 2.