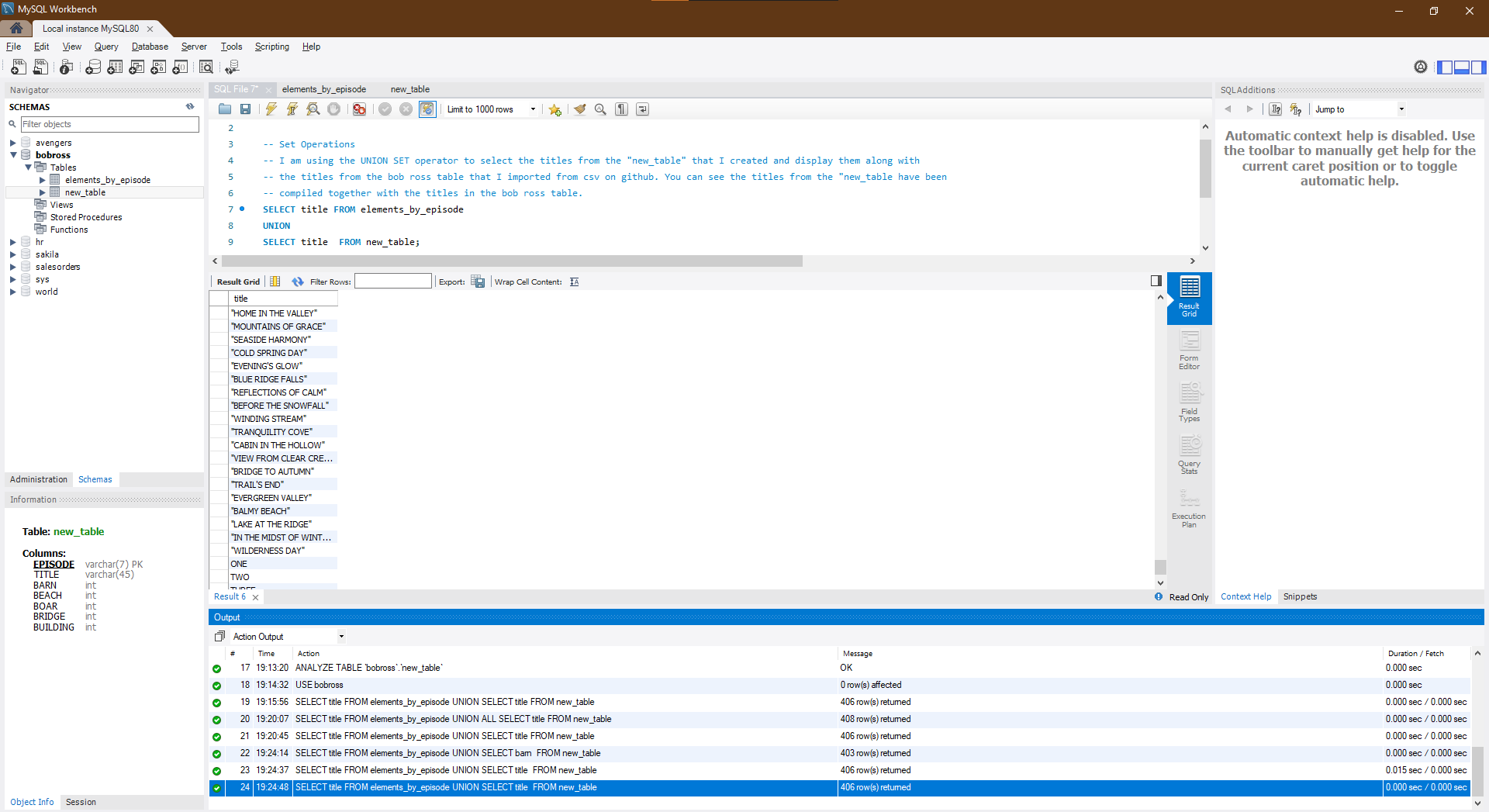
1. Set Operations

I am using the UNION SET operator to select the titles from the "new\_table" that I created and display them along with

the titles from the bob ross table that I imported from csv on github. You can see the titles from the new\_table have been

compiled together with the titles in the bob ross table.



SELECT title FROM elements\_by\_episode

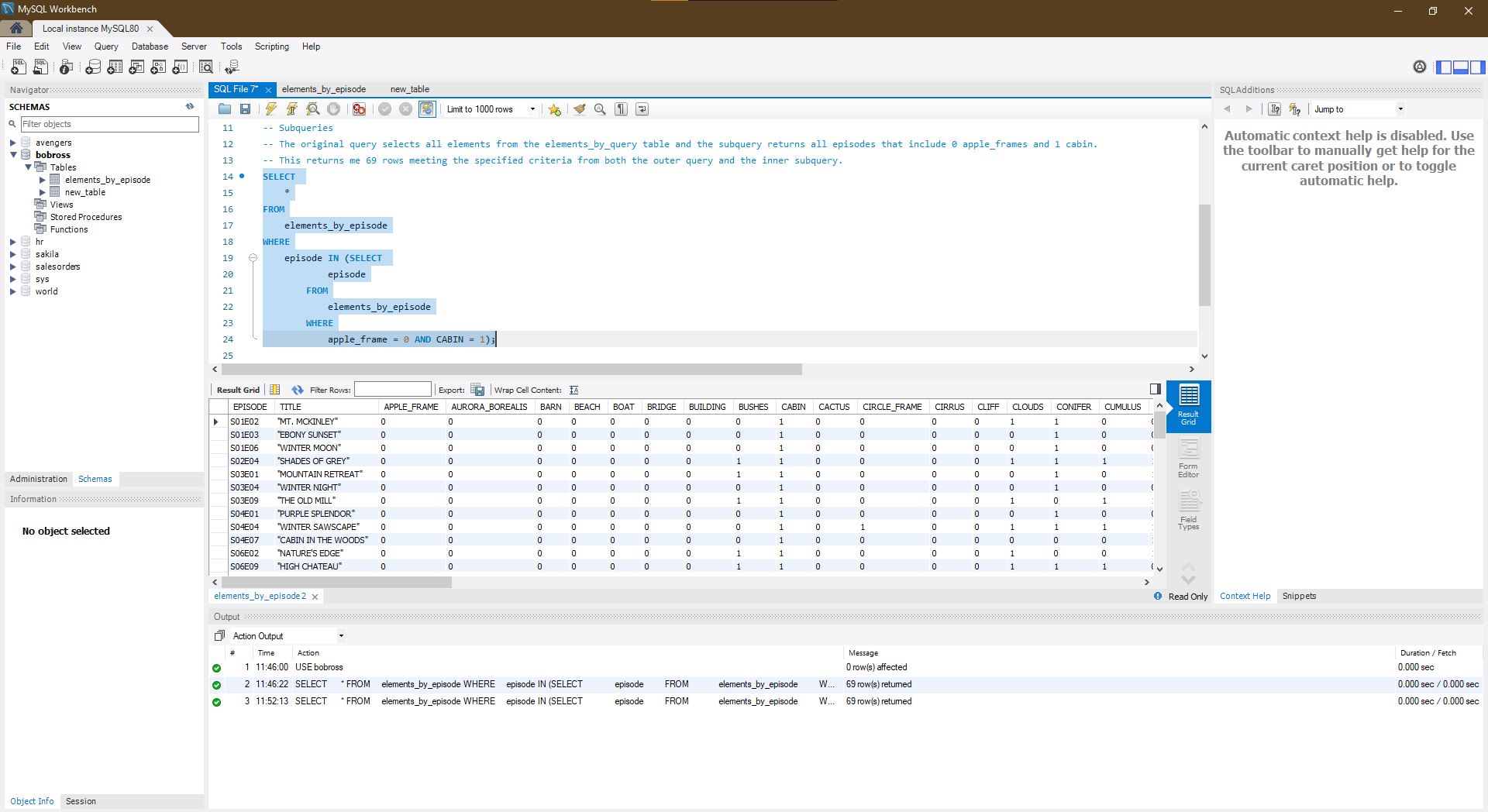
UNION

SELECT title FROM new\_table;

1. Subqueries

The original query selects all elements from the elements\_by\_episode table and the subquery returns all episodes that include 0 apple\_frames and 1 cabin.

This returns me 69 rows meeting the specified criteria from both the outer query and the inner subquery.



SELECT

\*

FROM

elements\_by\_episode

WHERE

episode IN (SELECT

episode

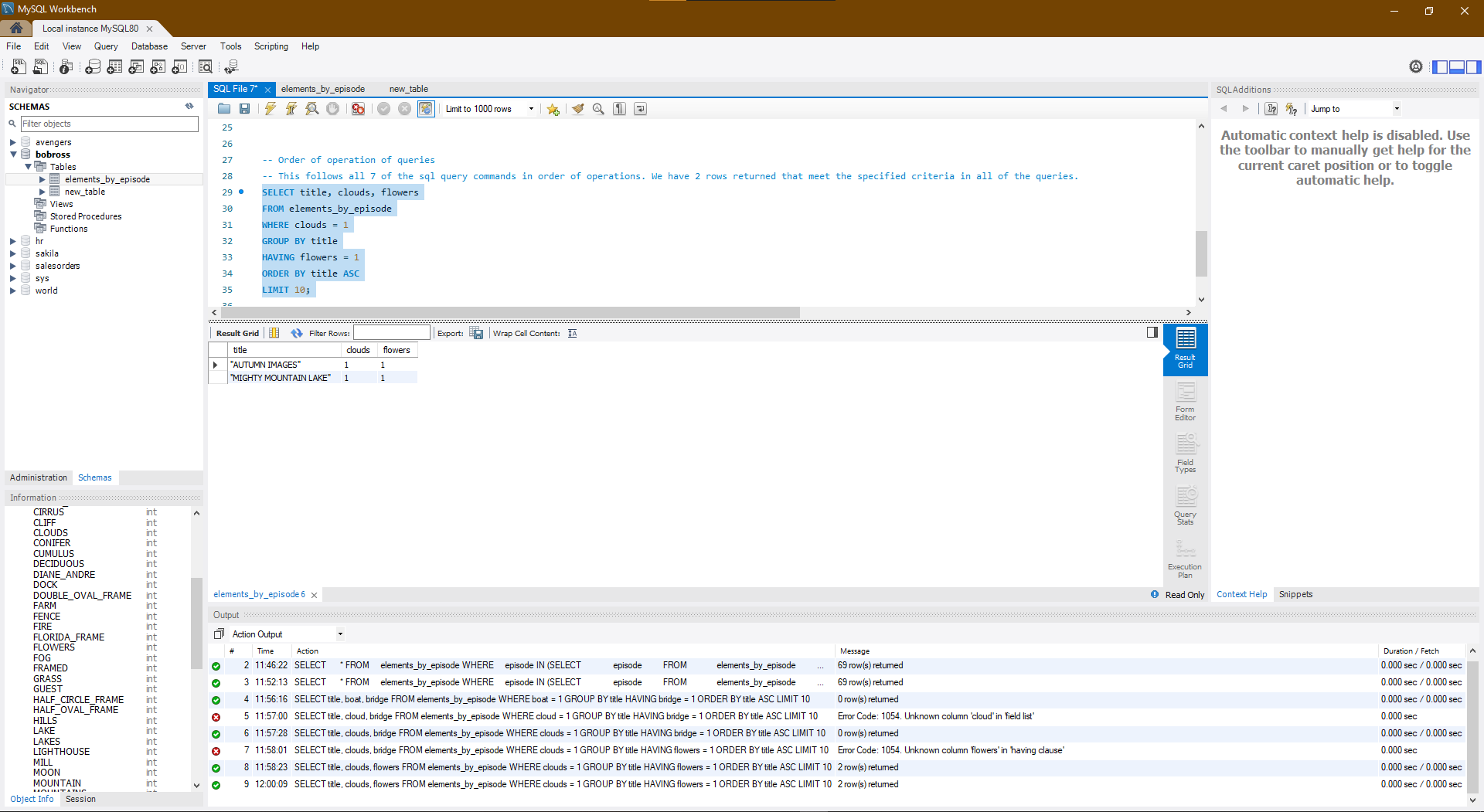
FROM

elements\_by\_episode

WHERE

apple\_frame = 0 AND CABIN = 1);

3) Order of operation of queries

This follows all 7 of the sql query commands in order of operations. We have 2 rows returned that meet the specified criteria in all of the queries.

SELECT title, clouds, flowers

FROM elements\_by\_episode

WHERE clouds = 1

GROUP BY title

HAVING flowers = 1

ORDER BY title ASC

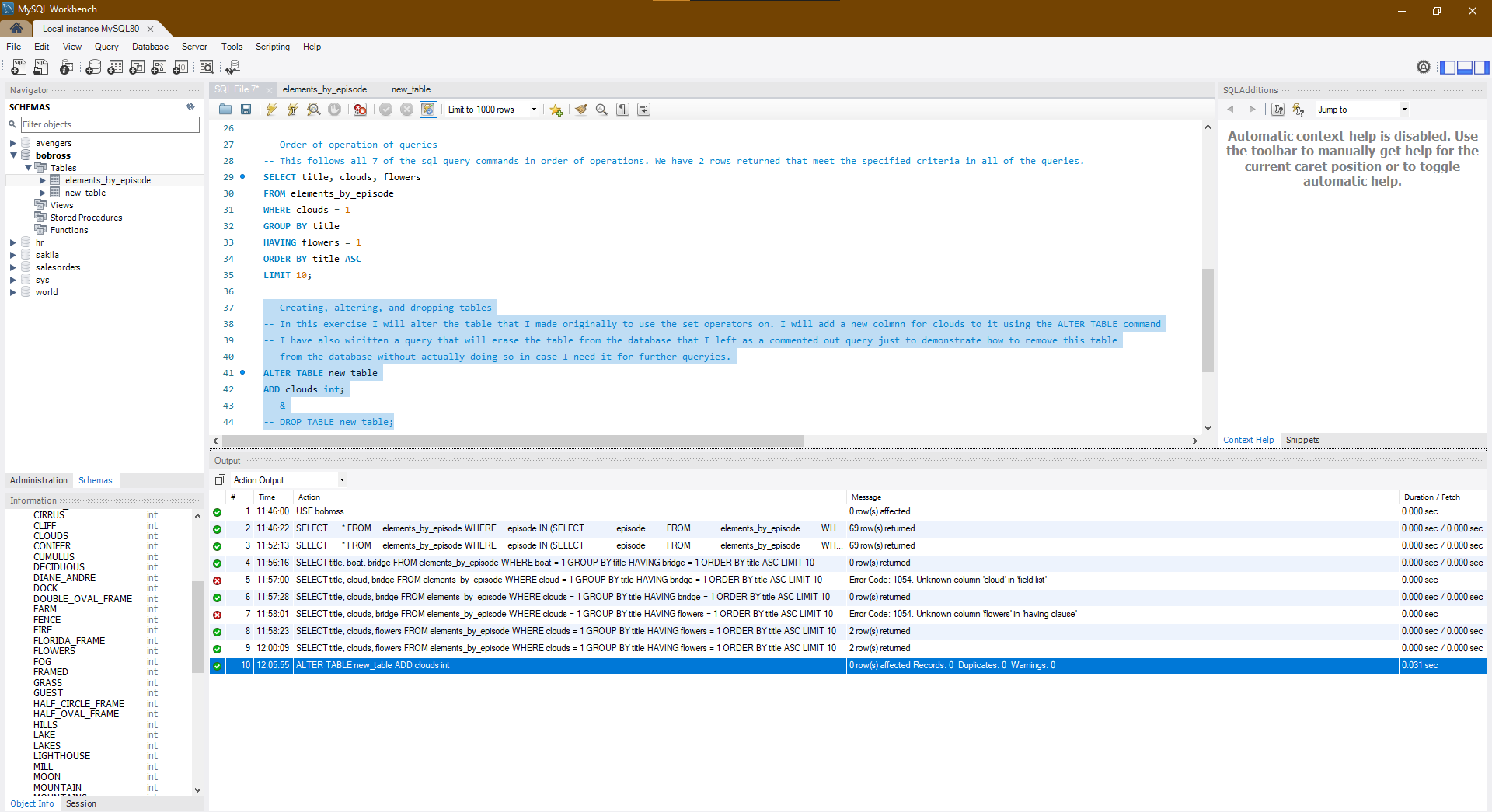
LIMIT 10;

4) Creating, altering, and dropping tables

In this exercise I will alter the table that I made originally to use the set operators on. I will add a new column for clouds to it using the ALTER TABLE command

I have also written a query that will erase the table from the database that I left as a commented out query just to demonstrate how to remove this table

from the database without actually doing so in case I need it for further queries.

ALTER TABLE new\_table

ADD clouds int;

-- &

-- DROP TABLE new\_table;

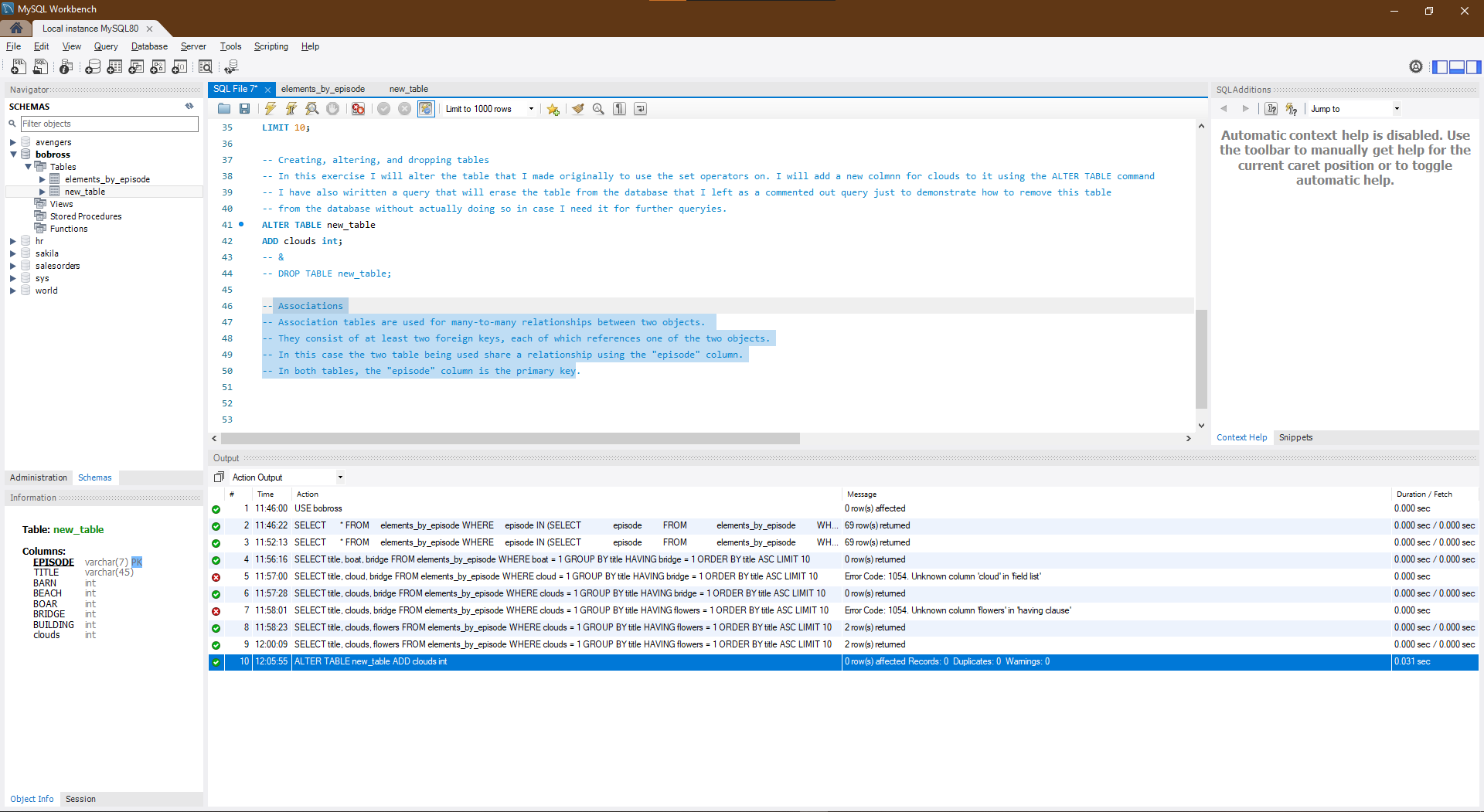
5) Associations

Association tables are used for many-to-many relationships between two objects.

They consist of at least two foreign keys, each of which references one of the two objects.

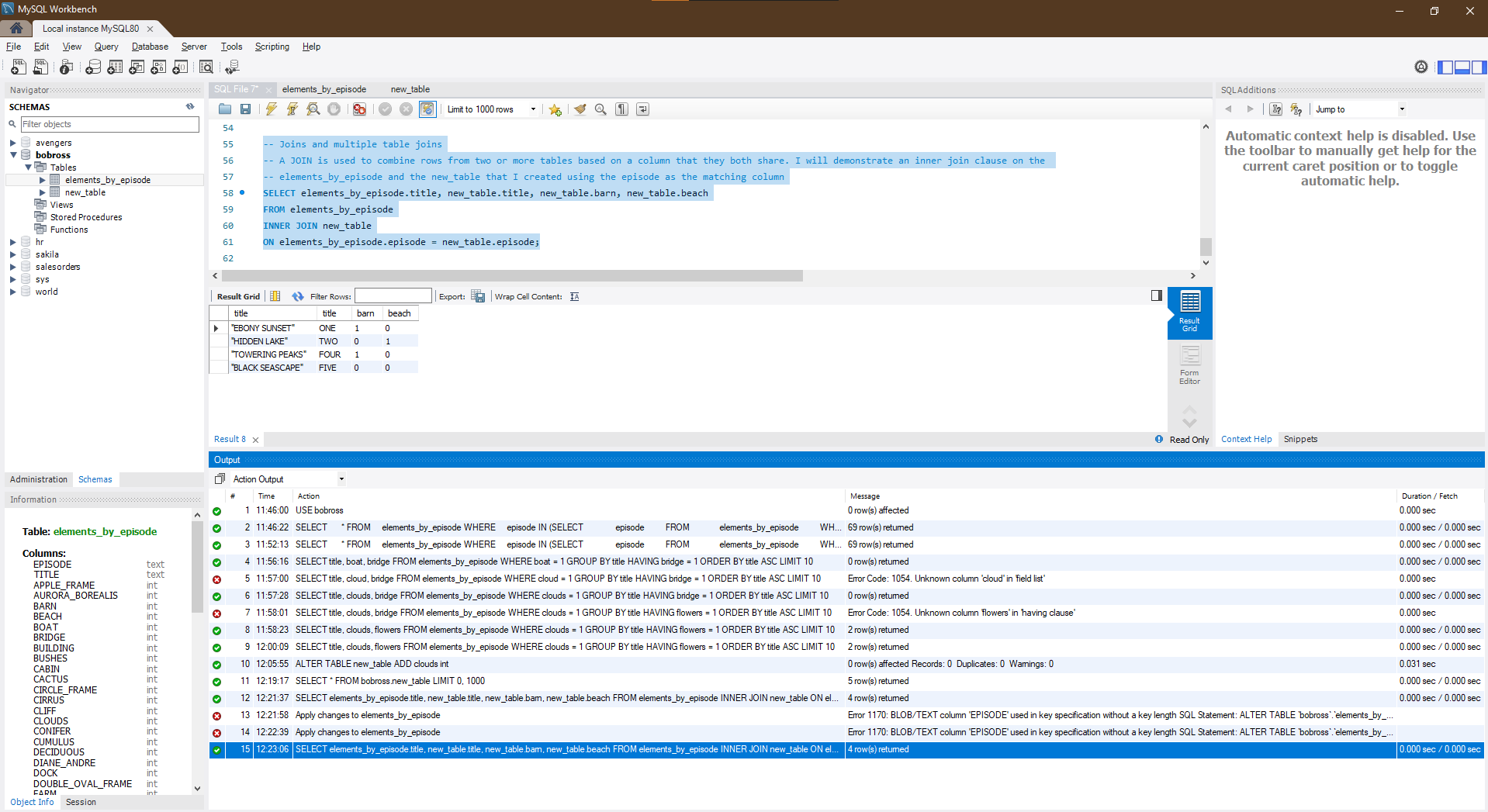
In this case the two table being used share a relationship using the "episode" column.

In both tables, the "episode" column is the primary key.



6) Joins and multiple table joins

A JOIN is used to combine rows from two or more tables based on a column that they both share. I will demonstrate an inner join clause on the

elements\_by\_episode and the new\_table that I created using the episode as the matching column

SELECT elements\_by\_episode.title, new\_table.title, new\_table.barn, new\_table.beach

FROM elements\_by\_episode

INNER JOIN new\_table

ON elements\_by\_episode.episode = new\_table.episode;