

95 – 703: Database Management

SQL Assignment #3 (hardcopy due on April 24, in class before the lecture starts)

*Turn in a well formatted and readable printout of your SQL statements as they were executed in the SQL*Plus environment and the results of running each statement. Set the LINESIZE and PAGESIZE values optimally to ensure that there are no wrapping lines or repeated column headers in the results (refer to the “**Formatting SQL Output**” document available on the class website). Identify each answer clearly. Each question should be answered by a single SQL statement (not a sequence of statements).*

In any case where the output includes ID and a name (or first and last name, and such like), concatenate these values into a single expression (single column in the results).

Use the script titled ‘SQL3_script.txt’ provided on the blackboard website to create the database needed for this assignment. Then, answer the questions as defined below.

1. We are interested in the number of films in our inventory released in the most recent years. Provide the number of films (but not number of copies of those titles) in every year and genre combination. The structure of the output table should be as defined below (including the grand totals). Include all genres that are represented in the film table. Also, add a column for films released before 2015. All Classic films must be combined and represented in one row of the pivot table as “Classic” genre.

Genre	Before 2015	2015	2016	2017	Genre Total:
...					
Classic					
Drama					
Fantasy					
Sci-Fi					
...					
Year Total :					

2. Rank each city, in which our members reside, based on the number of rentals. The highest number should have the rank number 1.
3. What is/are the top title(s) (in terms of the number of times a film was rented) in each genre of films? List the genre, the top title(s) in its genre, and the number of times the film was rented. Sort the results alphabetically by genre and then by title.
4. Rank each sales rep according to the number of times he or she processed any rental in the past 30 days. List ID and name of each sales rep, the rank, and the number of rentals.
5. For each store list the ID and name of the employee who processed most rentals. Also provide the number of rentals the top sales rep processed. If we have two sales rep with the same number of rentals, both of them must be listed in the output.

6. Rank each store according to the percent of their different films rented in the past 60 days. Include in the results the number of different films rented during the past 60 days, the total number of different films at that store, and the percentage number, and the rank for each store. In case where no films have yet been rented from a store, show a 0 rather than a null value.

Bonus Query:

The company is interested in learning about how loyal the members are to the location at which they registered. For each store list store ID, store name, and the proportion of “loyal” rentals (formatted as percentage and with % sign). Order the results from highest to lowest proportion.