TSQL Homework 07

Chapter 7, T-SQL Query Fundamentals

Readings

Read chapter 7 in the T-SQL Query Fundamentals book.

Homework questions

1. What is a window function?

Is a function that, for each row, computes a scalar value based on a calculation against a subset of the rows from the underlying query.

1. What does PARTITION do?

Restricts the window to the subset of rows that have the same values in the partitioning columns as in the current row.

1. What does ORDER BY do?

Defines ordering, but a windows ranking function gives meaning to the rank

1. What does ROWS BETWEEN do?

Filters a frame, or a subset, of rows from the window partition between two specified delimiters.

1. What is a ranking window function? Why would you use it? Give an example.

A function used to rank each row with respect to others in the window.

1. What is an offset window function? Why would you use it? Give an example.

Used to return an element from a row that is at a certain offset from the current row or at the beginning or end of a window frame.

1. What do LEAD and LAG DO

Used to obtain an element from a row that is at a certain offset from the current row within a partition. LAG looks before the current row and LEAD looks ahead.

1. What do FIRST VALUE and LAST VALUE do?

Return an element from the first and last rows in the window frame, respectively.

1. What is an aggregate window function? Why would you use it? Give an example.

Used to aggregate the rows in a defined window. They support window-partition, window-order, and window-frame clauses.

1. What is a pivot table and what does it do?

Operates in the context of the from clause. It operates on the source table expression provided to it as its left input, pivots the data, and returns a result table.

11. In mathematical theory, what is a power set? How does this definition of power set relate to grouping

sets?

Is a set of all subsets of S

12. What is a bit array? How can you implement a bit array to represent a set of ags? How does the

GROUPING ID() function implement a bit array? Is an array data structure that compactly stores bits.

13. Read the documentation on the UNIX/Linux chmod command. How would interpret this command:

chmod 755 myscript.sql? Sets permissions so that a user can read, write, and execute