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July 30, 2020

ISTA420 Hw 07

1. window functions allow access to data in the records right before and after the current record. A window function defines a frame or window of rows with a given length around the current row, and performs a calculation across the set of data in the window. A function is a named block of code that transforms input into output. 1 row to 1 result.
2. Partitioning is the database process where very large tables are divided into multiple smaller parts.
3. The ORDER BY keyword is used to sort the result-set in ascending or descending order.
4. Rows Between filters a frame, or a subset, of rows from the window partition between the two specified delimiters.
5. The RANK window function determines the rank of a value in a group of values, based on the ORDER BY expression in the OVER clause. ... For example, if two rows are ranked 1, the next rank is 2. You can have ranking functions with different PARTITION BY and ORDER BY clauses in the same query.
6. You use offset window functions 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. we might want to return all of the purchases made today but in the same row return the value of the previous purchase that the customer made.
7. The LAG function has the ability to fetch data from a previous row, while LEAD fetches data from a subsequent row. Both functions are very similar to each other and you can just replace one by the other by changing the sort order.
8. The First\_Value Function returns the first value in an ordered set of values, and Similarly Last\_Value function returns the last value from an ordered set of values.
9. An aggregate function performs a calculation on a set of values, and returns a single value. Except for COUNT(\*) , aggregate functions ignore null values. Aggregate functions are often used with the GROUP BY clause of the SELECT statement. All aggregate functions are deterministic.
10. A Pivot Table is used to summarise, sort, reorganise, group, count, total or average data stored in a table. It allows us to transform columns into rows and rows into columns. It allows grouping by any field (column), and using advanced calculations on them.
11. A Power Set is a set of all the subsets of a set. The power set can group subsets together for the result, like a]b]c, ab ac bc a,b,c. This is similar to group by in SQL.
12. A bit array (also known as bit map, bit set, bit string, or bit vector) is an array data structure that compactly stores bits. It can be used to implement a simple set data structure.
13. chmod is the command and system call which is used to change the access permissions of file system objects. It is also used to change special mode flags. When you perform chmod 755 filename command you allow everyone to read and execute the file, the owner is allowed to write to the file as well.