Assignment 4 – Speeding Ticket Advanced Queries

Purpose

To develop complex queries used in the creation of different reports that summarizes or displays information of an ad-hoc nature and to provide these queries as user stored procedures or functions for repeated usage.

Background

You should now have an optimized database that allows for easy and secure querying. You should also have a database that has gone through a couple of revisions and testing giving you a better understanding of an issue tracking system and its purpose. However, you'll find that every database continues to grow as every application, that it supports, grows.

Tasks

Your task is to build the following queries, encapsulated as procedures or functions, and, if necessary, change your database to support them.

1. Display a list of all tickets submitted within a given month of the current year. The month will be supplied to the routine as a word (e.g. April)
2. Display a list of the top 10 tickets that have had the most activity in the form of comments. A start date and end date will be supplied to the routine in the form 'yyyy-mm-dd'.
3. Display a list of tickets for a particular category, ordered by descending date, with the corresponding date displayed in the format (Month dddd, yyyy) e.g. November 21st, 2009. A category name will be supplied to the routine.
4. Return the total number of active tasks for a given support staff member. An employee number will be supplied to the routine. The routine should also return zero (0), if there are no active tasks for that person, and negative one (-1), if the support staff member could not be found.
5. Display a "page" of ticket information by passing, to the routine, a page number and the number of tickets per page. For example, passing "1,10" will return the first ten tickets (ordered by ticket id), but passing "2,10" will return next ten tickets (i.e. page 2).

Any changes to your database should be recorded in both your ERD and Database Dictionary. You will generate an appropriate script with DDL and test data for the queries to produce simulated results.

You will also need to provide a script (or scripts) capable of testing all the above queries. The script(s) should include test data and enough examples of query usage to provide a thorough demonstration of it capabilities.

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	Criteria	Unsatisfactory	Acceptable	Good	Exceptional	Mark
		0	1	2	3	
T-SQL	**Monthly Tickets**	- query doesn't exist or contains too many errors - query does not produce desired result	- query produces results - two errors exist in logic or output	- query produces results - one error exist in logic or output	- query produces exact desired results - no errors exist in logic or output	____
	High Activity Tickets	- query doesn't exist or contains too many errors - query does not produce desired result	- query produces results - two errors exist in logic or output	- query produces results - one error exist in logic or output	- query produces exact desired results - no errors exist in logic or output	____
	Category Tickets	- query doesn't exist or contains too many errors - query does not produce desired result	- query produces results - two errors exist in logic or output	- query produces results - one error exist in logic or output	- query produces exact desired results - no errors exist in logic or output	____
	Active Tasks	- query doesn't exist or contains too many errors - query does not produce desired result	- query produces results - two errors exist in logic or output	- query produces results - one error exist in logic or output	- query produces exact desired results - no errors exist in logic or output	____
	Paged Tickets	- query doesn't exist or contains too many errors - query does not produce desired result	- query produces results - two errors exist in logic or output	- query produces results - one error exist in logic or output	- query produces exact desired results - no errors exist in logic or output	____
	Test Script	- no test script exists - test script contains too many errors or does not provide an adequate example of query use - no test data or too little data exists for the above queries - more than two of the above queries are missing from script	- test script exists - a few errors exist - test script lacks clarity or completeness - some test data exists - more data is required to fully test queries - two queries are missing from script	- test script exists - a couple of errors exist - most of the script is clear and demonstrates the query usage well - a good amount of data exists - a little more data is required to fully test queries - one query is missing from script	- the test script contains no errors - the entire script is very clear and demonstrates the usage of all queries completely - complete test data exists to fully test and simulate of all the above queries	____