Assignment 3 – Testing the Speeding Ticket Database

Purpose

To test the design of your Issue Tracking Database by using standard queries to add, update, delete and retrieve information to/from the database.

Tasks

INSERT Statements

To test that all the information required for issue tracking can be stored in your database in an efficient manner you will develop several SQL INSERT statements. You will create enough INSERT statements to test every table, field and constraint in the database. You will also want enough INSERT statements to fill the tables with test data for the next tasks. A target is to have at least 5 records per parent table and 10 records per child table, but this is just a guideline. Remember that constraints include: primary keys, foreign keys, alternate keys, defaults and check constraints.

DELETE Statements

To test the deleting of records create the following DELETE statements:

A. Delete a user that has created a ticket
B. Delete a support staff member that is currently assigned to a ticket
C. Delete a ticket that has a task and a comment
D. Delete a hardware that has more than one ticket

UPDATE Statements

To test that you can easily modify information stored in your database you will develop the following UPDATE statements:

A. Assign a staff member to a ticket
B. Change the status of a ticket to completed (or the like)
C. Change the user id (primary key), for a user that has created tickets, to a new value

SELECT Statements

To test the retrieval of information from your database, you will develop the following SELECT statements:

A. Retrieve a list of all open tickets
B. Retrieve a list of tickets reported after Mar. 1, 2020 at 4:30PM and before Mar. 4, 2020 at 8:30AM
C. Retrieve a list of all tickets for three specific categories
D. Retrieve a list of tickets assigned to a particular staff member and ordered by assigned date
E. Retrieve a list of users' names and the number of tickets created by each user. Display zero (0) for those users that have not created any tickets and order the list by the user's last names.
F. Retrieve a list of ticket titles that have comments with the phrase "initial comment" somewhere in the text
G. Retrieve a list of the categories for tickets than have more than two (2) active tasks that have not been assigned to any staff member

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	Criteria	Unsatisfactory	Acceptable	Good	Exceptional	Mark
		0	1	2	3	
CUD Statements	**INSERT Statements**	- no INSERT statements exist - too few INSERT statements exist or have too many errors	- INSERT statements exist to add data for every table in the database	- INSERT statements exist for all tables - most fields and constraints are well tested	- all tables, fields and constraints are well tested - more than enough rows of data exist	x4 ____
	UPDATE Statements	- no UPDATE statements exist - too few UPDATE statements exist or have too many errors	- some UPDATE statements perform correctly - some errors exist	- most UPDATE statements perform correctly - a few errors exist	- all UPDATE statements perform correctly without errors	x2 ____
	DELETE Statements	- no DELETE statements exist - too few DELETE statements exist or have too many errors	- some DELETE statements perform correctly - some errors exist	- most DELETE statements perform correctly - a few errors exist	- all DELETE statements perform correctly without errors	x2 ____
SELECT Statements	**SELECT Statement A**	- no SELECT statement exists - statement does not produce desired result			- SELECT statement exists and produces the correct results	____
	SELECT Statement B	- no SELECT statement exists - statement does not produce desired result			- SELECT statement exists and produces the correct results	____
	SELECT Statement C	- no SELECT statement exists - statement does not produce desired result			- SELECT statement exists and produces the correct results	____
	SELECT Statement D	- no SELECT statement exists - statement does not produce desired result			- SELECT statement exists and produces the correct results	____
	SELECT Statement E	- no SELECT statement exists - statement does not produce desired result			- SELECT statement exists and produces the correct results	____
	SELECT Statement F	- no SELECT statement exists - statement does not produce desired result			- SELECT statement exists and produces the correct results	____
	SELECT Statement G	- no SELECT statement exists - statement does not produce desired result			- SELECT statement exists and produces the correct results	____
	Layout	- SQL keywords not capitalized - SQL statements not indented where appropriate	- some SQL keywords capitalized and some SQL statements indented appropriately - some formatting errors exist	- most SQL keywords capitalized, and most SQL statements indented appropriately - a few formatting errors exist	- all SQL keywords capitalized and all SQL statements indented appropriately	____
DESIGN	**Changes**	- the ERD or Data Dictionary were not updated to included changes	- a few changes were reflected in the design documents - some changes were not included	- some changes were reflected in the design documents - a few changes were not included	- all changes and enhancements were reflected in the design documents - no errors or omissions exist	____