SQL IN 10 MINUTES

CHAPTERS 14 & 15

CONTENTS

- Chapter 14 – "Combining Queries"

- Unions

- Same as using multiple WHERE statements

- Examples

- Chapter 15 – "Inserting Data"

- INSERT statements

- 3 different types

- Differing syntax

- Examples

CHAPTER 14 - UNIONS

2 SCENARIOS IN WHICH YOU'D USE COMBINED QUERIES

- To return similarly structured data from different tables in a single query

> SELECT cust_name, cust_contact, cust_email
>
> FROM Customers
>
> WHERE cust_state IN ('IL', 'IN', 'MI')
>
> UNION
>
> SELECT cust_name, cust_contact, cust_email
>
> FROM Customers
>
> WHERE cust_name IN ('Fun4All')

- No standard SQL limit to the number of SELECT stmts that can be combined (consult with DBMS documentation, however)

2 SCENARIOS IN WHICH YOU'D USE COMBINED QUERIES (CONT) AND

RULES

- To perform multiple queries against a single table returning the data as one query
  - SELF JOINS ?

- A UNION must be composed of two or more SELECT statements

- Each query in a UNION must contain the same columns, expressions, or aggregate functions

- Column datatypes must be compatible. They need not be the same name. If the column names are different, the first name is used (even if it's an alias)

DUPLICATE ROWS

UNION AUTOMATICALLY REMOVES ANY DUPLICATE ROWS

USE **UNION ALL** INSTEAD OF UNION IN ORDER TO KEEP DUPLICATES

SORTING UNION QUERIES

ONLY USE ONE **ORDER BY** STMT AFTER THE LAST SELECT STMT

OTHER UNION TYPES

EXCEPT – SOMETIMES CALLED **MINUS** AND USED SIMILAR TO **LEFT JOIN**

INTERSECT – SIMILAR TO **INNER JOIN**

QUESTIONS

CHAPTER 15 – INSERT DATA

NOTE

USE OF THE INSERT FUNCTION OFTEN REQUIRES SPECIAL SECURITY PRIVILEGES

- INSERT is used to add rows to a dataset table

And can be used in several different ways

- Inserting a single complete row

INSERT INTO Customers

VALUES   (x,

                 y,

                 'z')

  - (Some SQL does not require INTO stmt)
  - SQL best practices dictate to use the INTO stmt as well as the column names and their corresponding values
- Inserting a single partial row
  - Just like the complete row but omitting the column names you don't need along with the corresponding values
- Inserting the results of a query

INSERTING RETRIEVED DATA INTO AN EXISTING TABLE – **INSERT SELECT**

- INSERT INTO Customers

  (cust_id,

  cust_contact,

  cust_email)

SELECT cust_id,

  cust_contact

  cust_email

FROM CustNew

INSERTING RETRIEVED DATA INTO A NEW TABLE – **CREATE SELECT** (SQL SERVER USES **SELECT * INTO** INSTEAD OF **CREATE SELECT**)

CREATE TABLE CustomerSelect AS SELECT *

FROM Customers

NOTE:

- Any SELECT options and clauses like WHERE and GROUP BY can be used with SELECT INTO

- JOINS can be used as well

- Data can only be inserted into a single table

QUESTIONS