TSQL Homework 08b

Chapter 8b, T-SQL Query Fundamentals

Readings

Read chapter 8, pages 266 { 287 in the T-SQL Query Fundamentals book.

Homework questions

1. The sales tax rate for a state just changed. How would you update the state sales tax table to reflect

the changes? Assume that this table has an ID column, an RATE column, and a STATE column.

ALTER TABLE

2. The Revenue Division has requested that you provide a report on what the actual sales taxes would

have been for all orders in the past year, assuming the retroactivity of the new sales tax rate. How

would you calculate this?

UPDATE OD

SET StateTax += 8

From dbo.orderdetails as od

Inner join dbo.orders as o

On od.statetax = o.statetax

Where date > dateadd(year, -1, getadd) ;

3. Explain how the proprietary assignment update command works.

Updates data in a table and assigns values to variables

4. What is one very important purpose of the MERGE SQL statement? What is ETL (not in book)?

Used to merge data from a source into a target. Extract, Transform, Load.

5. What are the semantics of MERGE?

Merge into the target table

using source

on tgt = src

when matched then

update set

when not matched then

insert (p, a, a, a, e)

values (1, 2, 1, 1, 1)

when not matched by source then

delete

6. Write a typical INSERT OUTPUT statement.

INSERT into dbo.order

OUTPUT inserted.id, inserted.name

SELECT lastname

From hr.employees

7. Write a typical UPDATE OUTPUT statement.

UPDATE OD

SET StateTax += 8

From dbo.orderdetails as od

Inner join dbo.orders as o

On od.statetax = o.statetax

Where date > dateadd(year, -1, getadd)

8. Write a typical DELETE OUTPUT statement.

Delete from dbo.orders

Output

Deleted.empid

Where empid < 213

9. Write a typical MERGE OUTPUT statement.

MERGE INTO dbo.Customers AS TGT

USING dbo.CustomersStage AS SRC

ON TGT.custid = SRC.custid

WHEN MATCHED THEN

UPDATE SET    TGT.companyname = SRC.companyname,    TGT.phone = SRC.phone,    TGT.address = SRC.address

WHEN NOT MATCHED THEN  INSERT (custid, companyname, phone, address)

VALUES (SRC.custid, SRC.companyname, SRC.phone, SRC.address)

OUTPUT $action AS theaction, inserted.custid,

 deleted.companyname AS oldcompanyname,

inserted.companyname AS newcompanyname,

deleted.phone AS oldphone,

inserted.phone AS newphone,

deleted.address AS oldaddress,

inserted.address AS newaddress;

10. What is nested DML?

Data Manipulation Language used to directly insert into the final target table

11. (Not in book) Write a query adding a new column to a table named PERSON. The new column name

is DayOfBirth and the data type is string. Use ANSI SQL syntax.

ALTER TABLE Person

ADD DayOfBirth str;

12. (Not in book) Write a query adding a DEFAULT constraint to the column DayOfBirth. The constraint

is that the value matches one of SUN, MON, TUE, WED, THU, FRI, or SAT.

ALTER TABLE Person

ADD CONSTRAINT df\_DOB

DEFAULT ‘SUN, MON, TUE, WED, THU, FRI, SAT’

FOR DayOfBirth

13. (Not in book) Write a query adding a foreign key to the column DayOfBirth. The referenced table is

named WEEK and the referenced column is ValidDay.

ALTER TABLE Person

ADD CONSTRAINT fk\_DOB

Foreign Key (DayOfBirth) REFERENCES Week(VaildDay)