

Lesson Plan 08, ISTA-420

Chapter 5, T-SQL Fundamentals

June 12, 2017

1 Class Discussion

Test results, grades, new format of class room exercises, grading rubric for graded exercises and selection of exercises. Pages 161 – 183, chapter 5.

1. What is a table expression? Can you give a technical definition of a table expression?
2. In what SQL clause are derived tables (table valued subqueries) located?
3. Why can you refer to column aliases in an outer query that you defined in an inner table valued subquery?
4. What SQL key word defines a common table expression?
5. When using common table expressions, can a subsequent derived table use a table alias declared in a preceding table expression?
6. Can a main query refer to a previously defined common table expression by multiple aliases?
7. In SQL, is a view a durable object?
8. In a view, what does WITH CHECK OPTION do? Why is this important?
9. In a view, what does SCHEMABINDING do? Why is this important?
10. What is a table valued function?
11. What does the APPLY operator do?
12. What are the two forms of the APPLY operator? Give an example of each.

2 In Class Exercises

1. Write a query that returns all orders placed on the last day of activity that can be found in the Orders table.
2. Write a query that returns countries where there are customers but not employees.
3. Write a query that returns customers who placed orders in 2015 but not in 2016
4. Write a query that returns the customer ID, customer name, and country of customers that are not located in the United States using a table valued subquery.
5. Do the same using a common table expression.
6. Do the same using a view.
7. Write a query returning the last three orders of each customer. Use the APPLY operator.

3 Graded Labs

Do LearnOnDemand Lab 5.

4 Course Project

4.1 Version Control

Markdown: headings, itemized lists, numbered lists.

4.2 Submission Instructions

Create a directory on your local machine named `ista420-project`. Initialize a Git repository in that directory. In that directory, create four subdirectories named as follows:

```
\ista420-project
  \analysis
  \design
  \implementation
  \tests
```

Name your two requirements files like this: `iteration01-requirements.md`. You should have two files, last weeks is `iteration01` and this weeks will be `iteration02`. Use Markdown to format the requirements specifications. Place the requirements files in your `analysis` subdirectory. Add them to your Git repository, commit them, and push them to your Github project repository. Email me the URL of your Github repository at `cartec22@erau.edu`.

4.3 Project Assignment

This week begins the second iteration. Do a second version of your requirements that you developed last week.

5 Homework

Read pages 193 - 204 in the *T-SQL Fundamentals* book.