Faculty of Science, Engineering and Technology

Fundamentals of Data Management

Pass Tasks 7.1: SQL DML - Queries

Overview

In this tutorial, you will practise using SQL for querying a relational database.

Purpose

Learn to write SQL queries to find information in a relational database.

Task

Solve the tasks given below.

Time

This task should be completed in your seventh lab class and submitted for feedback in the seventh lab or at the beginning of lab 8 or 9. This tutorial is longer than others and tutorial 8 will be shorter, so you can continue with these tasks in lab 8.

Resources

- Online module (from Canvas)
- Elmasri & Navathe, Fundamentals of Database Systems Chapter 4
- Connolly & Begg, Database Systems, Chapter 6
- Churcher, Beginning SQL Queries, Chapters 2 and 3:
    - https://learning.oreilly.com/library/view/beginning-sql-queries/9781484219553/A158240_2_En_2_Chapter.html
- Online resources, e.g.
  http://www.w3schools.com/sql/sql_select.asp

Feedback

Discuss your solutions with the tutorial instructor.

Next

Get started on module 8.

Pass Tasks 7.1 — Submission Details and Assessment Criteria

Document your solutions to the tasks using a word processor. Upload the solutions to Doubtfire as pdf. The tutors will discuss them with you in the lab.

Consider the following schema:

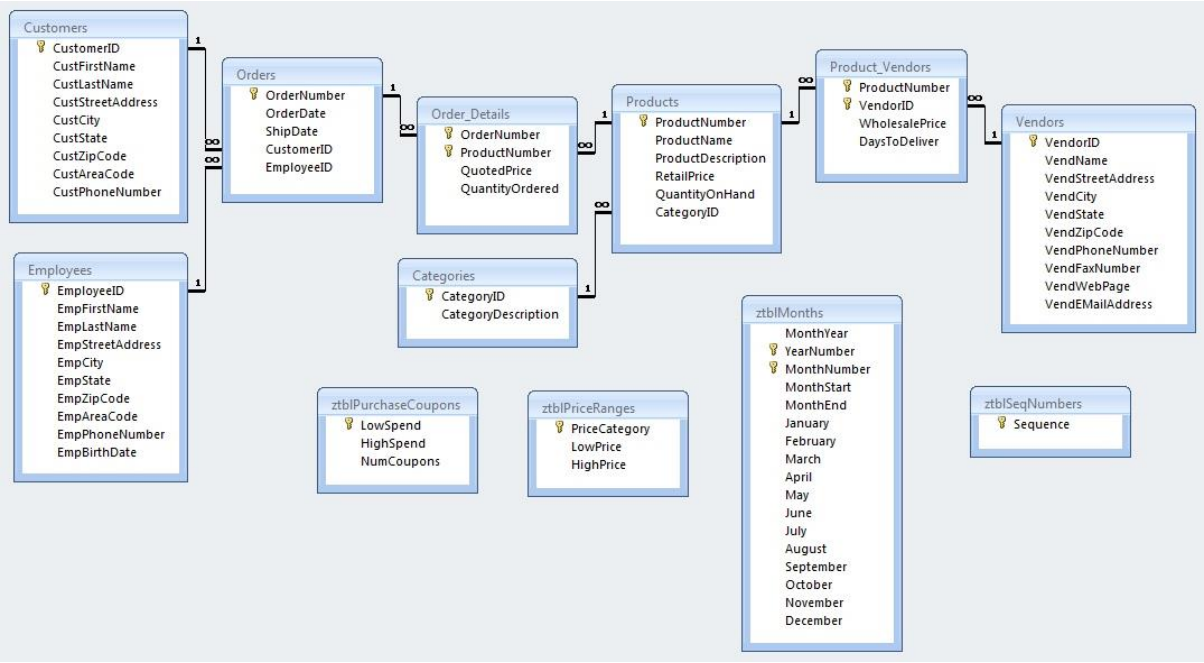

Figure 1: Sales Orders Database

Subtask 7.1.5

a) Create a view that joins the tables Customers, Orders and Order_Details and name it CustOrderItems. You have to include the colums shown here:

CustFirstName	CustLastName	OrderNumber	OrderDate	ShipDate	ItemTotal

ItemTotal is a column calculated by multiplying QuantityOrdered and QuotedPrice.

> **Hint**: Try the SELECT statement without the CREATE VIEW first to see if it works. If you have created a view and it's not what you want, you get rid of it like this:
>
> **DROP VIEW CustOrderItems**;

Document the CREATE VIEW statement.

b)Using the CustOrderItems view, write a query that shows the orders with customer numbers and order totals in this form:

CustFirstName	CustLastName	OrderNumber	OrderDate	ShipDate	OrderTotal
David	Smith	1	2012-09-01	2012-09-04	12751.85

OrderTotal is a calculated column that sums all item totals per order. Order the result by order number.

If you have not changed the data set, this should be identical to the first row you see.

Hint: You have to use the sum function and GROUP BY to do b).

Document the solution.