

ITCS393 Database Systems Lab

Lab06: JOIN

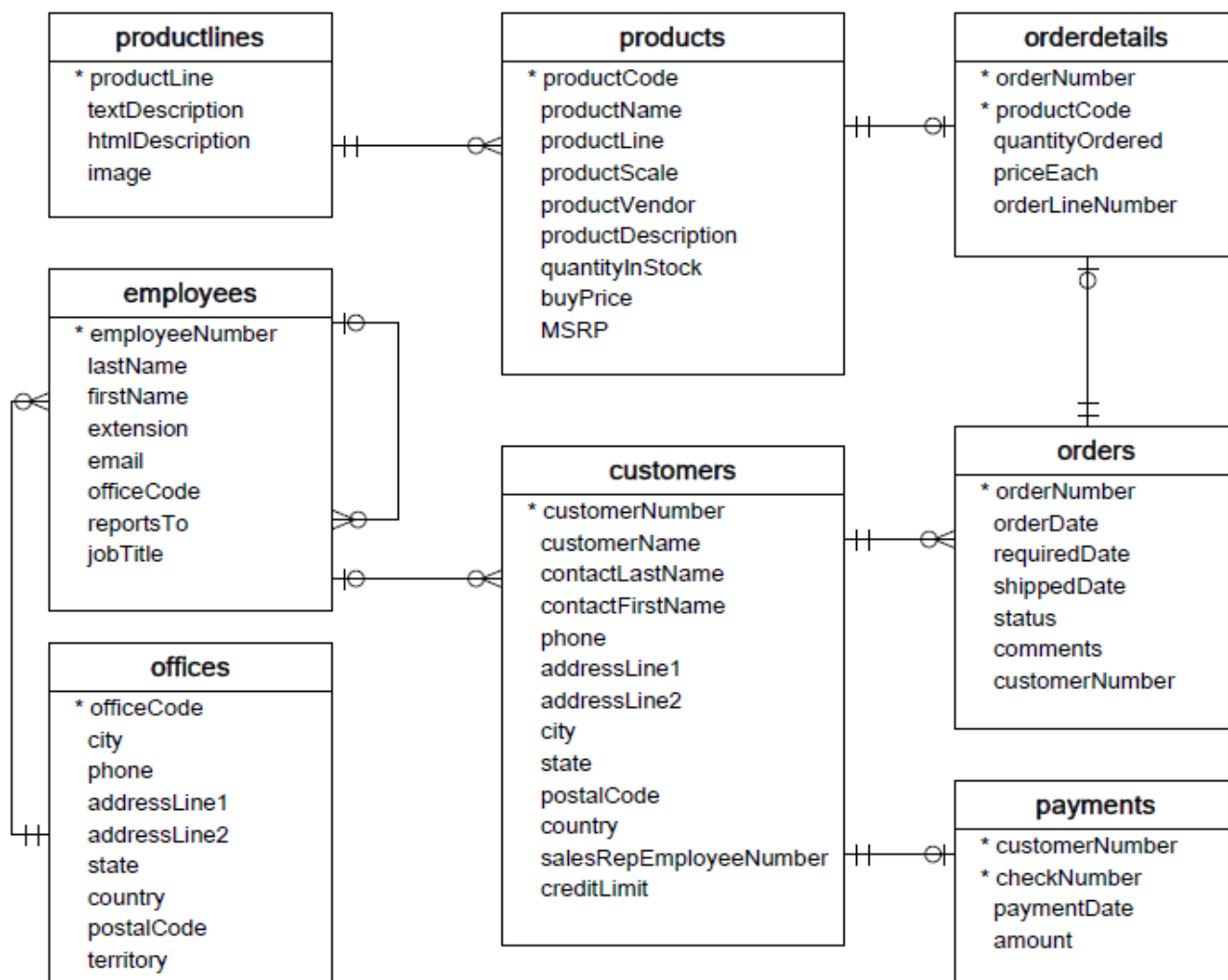
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Database: classicmodels



- **Customers:** stores customer's data.
- **Products:** stores a list of scale model cars.
- **ProductLines:** stores a list of product line categories.
- **Orders:** stores sales orders placed by customers.
- **OrderDetails:** stores sales order line items for each sales order.
- **Payments:** stores payments made by customers based on their accounts.
- **Employees:** stores all employee information as well as the organization structure such as who reports to whom.
- **Offices:** stores sales office data.

Lab 6 Instruction

Use "classicmodels" to answer the following the queries:
Please put your answers in the given answer sheet (.sql)

For the purpose of the lab, all questions must use the JOIN operations; no subquery is allowed

1. Find the total numbers of quantity ordered per product line for the complete order, sorted the results from the highest numbers to the lowest ones.

Note: the complete order is considered from the order with the status 'Shipped'.

Expected: 7 rows, 2 columns

productLine	QuantityOrder...
Classic Cars	33349
Vintage Cars	21015
Motorcycles	12425
Planes	10337
Trucks and Buses	10233
Ships	7131
Trains	2651

Lab 6 Instruction

- Calculate the sales amount per product of the order that have been previously cancelled for the 'Ships' product line

Note: the amount of sales is calculated from the quantity ordered multiplied by its price

Expected: 9 rows, 3 columns

productCode	productName	Amount of Cancelled Values
S18_3029	1999 Yamaha Speed Boat	7518.38
S24_2011	18th century schooner	9548.52
S700_1138	The Schooner Bluenose	5214.00
S700_1938	The Mayflower	5914.55
S700_2047	HMS Bounty	6210.52
S700_2610	The USS Constitution Ship	5079.84
S700_3505	The Titanic	4567.56
S700_3962	The Queen Mary	5568.36
S72_3212	Pont Yacht	2890.57

Lab 6 Instruction

- List the products (product code and name) that have never been sold

Expected: 1 row, 2 columns

productCode	productName
S18_3233	1985 Toyota Supra

- List the customers who made the orders with the product line 'Classic Cars' more than 3 times in total, sorted the result by the number of times from the highest values to the lowest ones.

Hint: the number of times they ordered can be counted from the unique order numbers

Expected: 6 rows, 2 columns

customerName	timesOrders
Euro+ Shopping Channel	17
Mini Gifts Distributors Ltd.	14
Anna's Decorations, Ltd	4
Down Under Souvenirs, Inc	4
Dragon Souvenirs, Ltd.	4
Muscle Machine Inc	4

Lab 6 Instruction

- List the top 3 customers outside USA and their payment statistics (the total number of payment checks, the total amount of payments, and the average amount of payments)

Expected: 3 rows, 5 columns

customerName	country	TotalNumCheck	TotalAmtPaid	AvgPaid
Euro+ Shopping Channel	Spain	13	715738.98	55056.844615
Australian Collectors, Co.	Australia	4	180585.07	45146.267500
Dragon Souvenirs, Ltd.	Singapore	4	156251.03	39062.757500

Lab 6 Instruction

- List the German customers who made the orders not more than 3 times in total, sorted the result by the customer's name alphabetically.

Expected: 12 rows, 2 columns

customerName	numOrders
Bavarian Collectables Imports,...	1
Cramer Spezialitäten, Ltd	0
Der Hund Imports	0
Feuer Online Stores, Inc	0
Franken Gifts, Co	0
Kommission Auto	0
Messner Shopping Network	0
Mit Vergnügen & Co.	0
Natürlich Autos	0
Stuttgart Collectable Exchange	0
Toms Spezialitäten, Ltd	2
Warburg Exchange	0

Lab 6 Instruction

7. List the locations of US customers (city, state) of the employee and their corresponding sale representatives' office location (city, state)

Expected: 25 rows, 2 columns

Customer's Location	Sale Rep's Location
Allentown, PA	Boston, MA
Boston, MA	Boston, MA
Brickhaven, MA	Boston, MA
Bridgewater, CT	NYC, NY
Brisbane, CA	San Francisco, CA
Burbank, CA	San Francisco, CA
Burlingame, CA	San Francisco, CA
Cambridge, MA	Boston, MA
Glendale, CA	San Francisco, CA
Glendale, CT	NYC, NY
Las Vegas, NV	San Francisco, CA
Los Angeles, CA	San Francisco, CA
Nashua, NH	Boston, MA
New Bedford, MA	Boston, MA
New Haven, CT	NYC, NY
Newark, NJ	NYC, NY
NYC, NY	NYC, NY
Pasadena, CA	San Francisco, CA
Philadelphia, PA	Boston, MA
Philadelphia, PA	NYC, NY
San Diego, CA	San Francisco, CA
San Francisco, CA	San Francisco, CA
San Jose, CA	San Francisco, CA
San Rafael, CA	San Francisco, CA
White Plains, NY	NYC, NY

Lab 6 Instruction

- List all combinations of the 'sales representative employees who work in USA office and all US customers

Hint: There are 36 US customers and 6 sales representatives located in USA

Expected: 216 rows, 4 columns

**** This is a partial table results**

SalesRep	SalesLocation	customerName	CustomerLocation
George Vanauf	NYC, NY	Signal Gift Stores	Las Vegas, NV
Foon Yue Tseng	NYC, NY	Signal Gift Stores	Las Vegas, NV
Steve Patterson	Boston, MA	Signal Gift Stores	Las Vegas, NV
Julie Firrelli	Boston, MA	Signal Gift Stores	Las Vegas, NV
Leslie Thompson	San Francisco, CA	Signal Gift Stores	Las Vegas, NV
Leslie Jennings	San Francisco, CA	Signal Gift Stores	Las Vegas, NV
George Vanauf	NYC, NY	Mini Gifts Distributors Ltd.	San Rafael, CA
Foon Yue Tseng	NYC, NY	Mini Gifts Distributors Ltd.	San Rafael, CA
Steve Patterson	Boston, MA	Mini Gifts Distributors Ltd.	San Rafael, CA
Julie Firrelli	Boston, MA	Mini Gifts Distributors Ltd.	San Rafael, CA
Leslie Thompson	San Francisco, CA	Mini Gifts Distributors Ltd.	San Rafael, CA
Leslie Jennings	San Francisco, CA	Mini Gifts Distributors Ltd.	San Rafael, CA
George Vanauf	NYC, NY	Mini Wheels Co.	San Francisco, CA
Foon Yue Tseng	NYC, NY	Mini Wheels Co.	San Francisco, CA
Steve Patterson	Boston, MA	Mini Wheels Co.	San Francisco, CA
Julie Firrelli	Boston, MA	Mini Wheels Co.	San Francisco, CA
Leslie Thompson	San Francisco, CA	Mini Wheels Co.	San Francisco, CA
Leslie Jennings	San Francisco, CA	Mini Wheels Co.	San Francisco, CA
George Vanauf	NYC, NY	Land of Toys Inc.	NYC, NY

Lab 5 Submission

- Put your name and ID in the comment
- **Submit your SQL file in MyCourses**, renamed as
L06grYidxx88xxx.sql
 - Y is your study Group
 - xx88xxx is your student ID