**Assignment 2**

The schema provided shows a database **classicmodels** which you will use for this assignment. From the schema you can see each table in the database, the elements in each table, and the keys that relate data in one table to another. Connect to a server using MySQL Workbench and perform the steps below. The information for server connections is contained in the file “Server Connections Assignment #2.txt”. When you are done, upload this completed worksheet as a Word document (copy and paste your results where indicated). You may also want to save your script and results files separately, but you do not need to upload them. **Please remember to disconnect from the server (close the database and exit MySQL Workbench) when you are not actively using it.** This will help ensure that the server is not overloaded and runs well for everyone that needs to use it. Also refrain from modifying the database and/or uploading or creating any new databases.

Scoring for this assignment will be based on correctly constructing and running the queries, along with the quality of your written answers and any other information asked for in this document. Be sure to **provide all the information requested** to receive full credit.Follow the instructions exactly. Your query results should also contain **only** data that is requested. Query results should also be formatted and organized **exactly** as specified, although you can ignore any null values that may appear in the last row of the results. **In each of your queries**:

* Assign a single letter as an alias for each table used (e.g., *employees AS e*)
* Use the format *table.column* for each column (e.g., *e.jobTitle*)

**Note that you may use the results from a preceding question (i.e., the query results) to help you answer any questions that follow it.** You also do not need to run a query to answer any “part 3” questions (e.g., A3); just use the results of the query and write clear, concise answers.

Review the scripts we ran in class, as well as the SQL command summary that was distributed, for guidance in structuring your queries. You can also search for examples on the Web or look through some of the resources posted in the MySQL Workbench module in Canvas.

**Case: Analyzing a company’s sales and transactional data.** Queries are often used to answer ad-hoc questions from a company’s data to support operations and decision making. The database classicmodels contains data about a company’s products, orders, payments, customers, product lines, employees, and offices.

A1. Write a query to find the number of different products that have a quantity in stock of **greater than 1000**. Group the products **by product line**. The results should contain the product line and the number of products (in that order). The results should be in alphabetical order by product line. Have the column headings display as Product Line and Number of Products. Copy and paste your final query below:

SELECT p.productLine AS 'Product Line', p.quantityInStock AS 'Number of Products'

FROM products AS p

WHERE p.quantityInStock > 1000

GROUP BY p.productLine

ORDER BY p.productLine;

A2. Paste your output below (you may want to export it to a CSV file first):

|  |  |
| --- | --- |
| Product Line | Number of Products |
| Classic Cars | 7305 |
| Motorcycles | 7933 |
| Planes | 5330 |
| Ships | 4259 |
| Trains | 6450 |
| Trucks and Buses | 1579 |
| Vintage Cars | 8693 |

A3. How many different products in total have a quantity in stock of greater than 1000?

98 different products (found by not grouping by product line and getting number of rows).

B1. Write a query to find all employees who work in the U.S. states of **California** and **Massachusetts**. The results should contain each employee’s state, last name, first name, and office phone number (in that order). The results should be in alphabetical order by state, and then by last name within each state. Have the column headings display as State, Last Name, First Name, and Phone Number. Copy and paste your final query below:

SELECT o.state AS 'State', e.lastName AS 'Last Name',

e.firstName AS 'First Name', o.phone AS 'Phone Number'

FROM offices AS o

JOIN employees AS e on o.officeCode = e.officeCode

WHERE o.state = 'CA' OR o.state = 'MA'

ORDER BY o.state, e.lastName;

B2. Paste your output below (you may want to export it to a CSV file first):

|  |  |  |  |
| --- | --- | --- | --- |
| State | Last Name | First Name | Phone Number |
| CA | Bow | Anthony | +1 650 219 4782 |
| CA | Firrelli | Jeff | +1 650 219 4782 |
| CA | Jennings | Leslie | +1 650 219 4782 |
| CA | Murphy | Diane | +1 650 219 4782 |
| CA | Patterson | Mary | +1 650 219 4782 |
| CA | Thompson | Leslie | +1 650 219 4782 |
| MA | Firrelli | Julie | +1 215 837 0825 |
| MA | Patterson | Steve | +1 215 837 0825 |

B3. How many people work in California? How many in Massachusetts?

6 People work in California and 2 people work in Massachusetts.

C1. Write a query to find products that have a product scale of **1:12**. The results should contain the name of each product, its product code, the product scale, and the MSRP (in that order). The results should be in **descending** order by product name. Have the column headings display as Product Name, Product Code, Product Scale, and MSRP ($). Copy and paste your final query below:

SELECT p.productName AS 'Product Name', p.productCode AS 'Product Code',

p.productScale AS 'Product Scale', p.MSRP AS 'MSRP ($)'

FROM products as p

WHERE p.productScale = '1:12'

ORDER BY p.productName DESC;

C2. Paste your output below (you may want to export it to an Excel file first):

|  |  |  |  |
| --- | --- | --- | --- |
| Product Name | Product Code | Product Scale | MSRP ($) |
| 2002 Suzuki XREO | S12\_2823 | 1:12 | 150.62 |
| 2001 Ferrari Enzo | S12\_1108 | 1:12 | 207.8 |
| 1970 Plymouth Hemi Cuda | S12\_3990 | 1:12 | 79.8 |
| 1969 Ford Falcon | S12\_3891 | 1:12 | 173.02 |
| 1969 Dodge Charger | S12\_4675 | 1:12 | 115.16 |
| 1968 Ford Mustang | S12\_1099 | 1:12 | 194.57 |
| 1968 Dodge Charger | S12\_3380 | 1:12 | 117.44 |
| 1958 Setra Bus | S12\_1666 | 1:12 | 136.67 |
| 1957 Chevy Pickup | S12\_4473 | 1:12 | 118.5 |

C3. Which product (by name) has the lowest MSRP?

The 1970 Plymouth Hemi Cuda has the lowest MSRP out of all of the products with a product scale of 1:12. The product with the lowest MSRP, regardless of the product scale, is the 1939 Chevrolet Deluxe Coupe.

D1. Write a query to find all customers that ordered any amount of the **1:12** scale product with **lowest** MSRP (Hint: use the results from the previous query). The results should contain the customer names and the quantity ordered (multiple orders from the same customer can be listed separately). The results should be in alphabetical order by customer name. Have the column headings display as Customer Name and Quantity Ordered. Copy and paste your final query below:

SELECT c.customerName AS 'Customer Name', d.quantityOrdered AS 'Quantity Ordered'

FROM products as p

JOIN orderdetails as d, orders as o, customers as c

WHERE p.productScale = '1:12' AND p.productCode = 'S12\_3990'

AND p.productCode = d.productCode AND d.orderNumber = o.orderNumber

AND o.customerNumber = c.customerNumber

ORDER BY c.customerName;

D2. Paste your output below (you may want to export it to an Excel file first):

|  |  |
| --- | --- |
| Customer Name | Quantity Ordered |
| Anna's Decorations, Ltd | 36 |
| Auto Canal+ Petit | 28 |
| Blauer See Auto, Co. | 22 |
| Collectables For Less Inc. | 21 |
| Corporate Gift Ideas Co. | 24 |
| Cruz & Sons Co. | 39 |
| Danish Wholesale Imports | 20 |
| Down Under Souveniers, Inc | 77 |
| Down Under Souveniers, Inc | 23 |
| Euro+ Shopping Channel | 44 |
| Herkku Gifts | 20 |
| L'ordine Souveniers | 35 |
| Land of Toys Inc. | 33 |
| Marseille Mini Autos | 32 |
| Mini Gifts Distributors Ltd. | 24 |
| Online Mini Collectables | 38 |
| Salzburg Collectables | 36 |
| Salzburg Collectables | 34 |
| Scandinavian Gift Ideas | 36 |
| Suominen Souveniers | 34 |
| Toms Spezialit√§ten, Ltd | 49 |
| Toms Spezialit√§ten, Ltd | 30 |
| Toys of Finland, Co. | 24 |
| UK Collectables, Ltd. | 25 |
| Vida Sport, Ltd | 41 |
| Vida Sport, Ltd | 37 |
| Volvo Model Replicas, Co | 38 |

D3. How many different customers ordered the product? Which customer(s) ordered the most?

23 different customers ordered the product. Down Under Souveriers ordered the most, ordering 100 total.