

MySQL Workbench

Local instance mysql x

File Edit View Query Database Server Tools Scripting Help

Navigator customers customers

Limit to 1000 rows

1 • SELECT contactFirstName  
2 FROM classicmodels.customers  
3 where contactFirstName regexp "bg|ba";  
4  
5

SCHEMAS

Filter objects

classicmodels

Tables

customers

Views

Stored Procedures

Functions

sakila

sys

world

Administration Schemas

Information

Table: customers

Columns:

customerNumber  
customerName  
contactLastName  
contactFirstName  
phone  
addressLine1  
addressLine2  
city  
state  
postalCode  
country  
salesRepEmployeeNumber  
creditLimit

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

contactFirstName

Result Grid

Form Editor

Field Types

MySQL Workbench

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Filter objects

- classicmodels
  - Tables
    - customers
  - Views
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Administration Schemas

Information

**Table: customers**

**Columns:**

- customerNumber
- customerName
- contactLastName
- contactFirstName
- phone
- addressLine1
- addressLine2
- city
- state
- postalCode
- country
- salesRepEmployeeNumber
- creditLimit

```
1 SELECT contactFirstName
2 FROM classicmodels.customers
3 where contactFirstName regexp "e1s"
4 or contactFirstName regexp "le?";
5
```

Result Grid Filter Rows: Export: Wrap Cell Content:

contactFirstName
Carne
Janne
Julie
Kwai
Diego
Christina
Eric
Kevin
Jun
Veysel
Keith
Teahai

Result Grid Form Editor Field Types

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**Table: customers**

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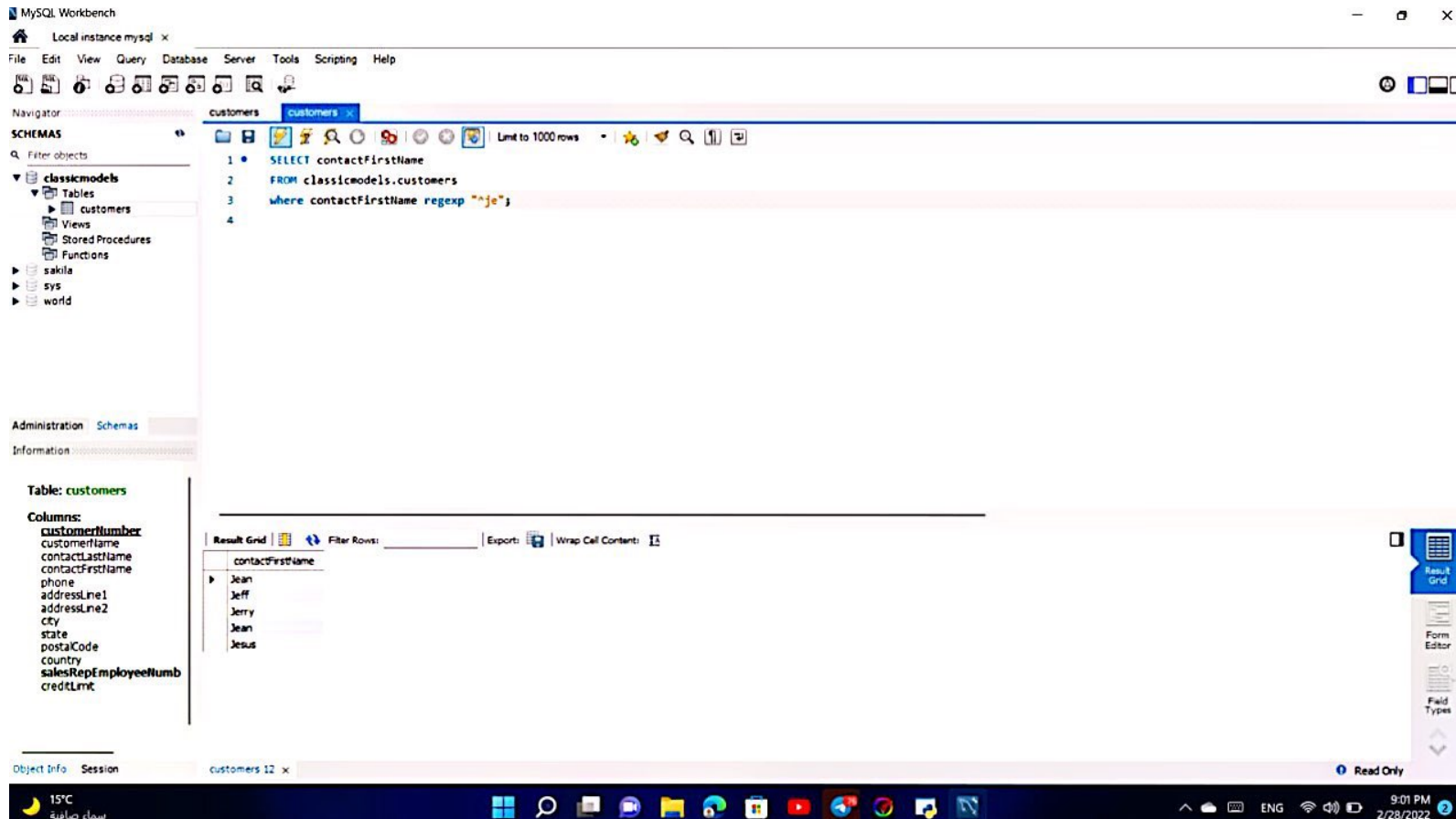
**Result Grid**

customerNumber	customerName	contactLastName	contactFirstName	phone	addressLine1	addressLine2	city	state	postalCode	country	salesRepEmployeeNumber	creditLimit
124	Mini Gifts Distributors Ltd.	Nelson	Susan	4155551450	5677 Strong St.		San Rafael	CA	97562	USA	1165	210500.00
298	Vida Sport, Ltd	Holz	Mihael	0897-034555	Grenzacherweg 237		Genève		1203	Switzerland	1702	141300.00
151	Muscle Machine Inc	Young	Jeff	2125557413	4092 Furth Circle	Suite 400	NYC	NY	10022	USA	1286	138500.00

Result Grid Filter Rows Edit Export/Import Wrap Cell Contents Fetch rows

Form Editor

Field Types



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customerNumber

customerName

contactLastName

contactFirstName

phone

addressLine1

addressLine2

city

state

postalCode

country

salesRepEmployeeNumber

creditLimit

customers

Limit to 1000 rows

```
1 SELECT contactFirstName
2 FROM classicmodels.customers
3 where contactFirstName regexp ".*je"
4 or contactFirstName regexp ".*J.";
5
```

Result Grid

Filter Rows:

Exports

Wrap Cell Content

contactFirstName
Jean
Jeff
Jerry
Leslie
Jean
Jesus
Leslie

Object Info Session

customers 14 x

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MySQL Workbench

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Columns:

customerNumber  
customerName  
contactLastName  
contactFirstName  
phone  
addressLine1  
addressLine2  
city  
state  
postalCode  
country  
salesRepEmployeeNumber  
creditLimit  
newCreditLimit

1 SELECT \*, creditLimit \* 2000 as new\_creditlimit

2

3 FROM classicmodels.customers

4 order by new\_creditlimit;

Result Grid

customerName	contactLastName	contactFirstName	phone	addressLine1	addressLine2	city	state	postalCode	country	salesRepEmployeeNumber	creditLimit	new_creditlimit
Anton Designs, Ltd.	Anton	Carmen	+34 913 728555	c/ Gobelos, 19-1 Urb. ...		Madrid	ES	28023	Spain		0.00	2000.00
Mt Vergrugen & Co.	Moos	Hanna	0621-08555	Forsterstr. 57		Mannheim	DE	68306	Germany		0.00	2000.00
Gremm Collectables, Co.	Semenov	Alexander	+7 812 293 0521	2 Pobedy Square		Saint Pete...	RU	196143	Russia		0.00	2000.00
Zaanen Stores, Inc.	Altagar, G M	Raanan	+ 972 9 959 8555	3 Hagan Blvd.		Herzlia	IL	47625	Israel		0.00	2000.00
Boards & Toys Co.	Young	Mary	3105552373	4097 Douglas Av.		Glendale	CA	92561	USA	1166	11000.00	13000.00
Atelier graphique	Schmitt	Carine	40.32.2555	54, rue Royale		Nantes	FR	44000	France	1370	21000.00	23000.00
Auto-Moto Classics Inc.	Taylor	Leslie	6175558428	16780 Pompton St.		Bridgwater	MA	58339	USA	1216	23000.00	25000.00
Royale Belge	Cartrain	Pascale	(071) 23 67 2555	Boulevard Tirou, 255		Charleroi	BE	B-6000	Belgium	1401	23500.00	25500.00
Frau da Collezione	Ricotti	Franco	+39 022515555	20093 Cologno Monzese	Alessandro ...	Milan	IT		Italy	1401	34800.00	36800.00
Microscale Inc.	Choi	Yu	2125551957	5290 North Pendale St...	Suite 200	NYC	NY	10022	USA	1286	39800.00	41800.00
Microscale Inc.	Yoshihiko	Yui	6175558428	8616 Cornerbrook Dr		Boston	MA	01107	USA	1716	41000.00	43000.00

Object Info Session Result 7 x Read Only

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contactFirstName

phone

addressLine1

addressLine2

city

state

postalCode

country

salesRepEmployeeNumber

creditLimit

Limit to 1000 rows

```

1 SELECT * FROM classicmodels.customers
2 where creditLimit >= 100000
3 and (customerNumber < 200 or country = "USA");

```

Result Grid

customerNumber	customerName	contactLastName	contactFirstName	phone	addressLine1	addressLine2	city	state	postalCode	country	salesRepEmployeeNumber
148	Dragon Souvenirs, Ltd.	Natividad	Eric	465 221 7555	Bronz Sok.	Bronz Apt. 3/6 Tesvikye	Singapore		079903	Singapore	1621
151	Muscle Machine Inc.	Young	Jeff	2125557413	4092 Furth Circle	Suite 400	NYC	NY	10022	USA	1286
157	Diecast Classics Inc.	Leong	Kevin	2155551555	7586 Pompton St.		Allentown	PA	70267	USA	1216
187	AV Stores, Co.	Ashworth	Rachel	(171) 555-1555	Fauntleroy Circus		Manchester		EC2 9NT	UK	1501
239	Collectable Mini Designs ...	Thompson	Valerie	7605558146	361 Furth Circle		San Diego	CA	91217	USA	1166
286	Marta's Replicas Co.	Hernandez	Marta	6175558555	39323 Spinnaker Dr.		Cambridge	MA	51247	USA	1216
319	Mini Classics	Frick	Steve	9145554562	3758 North Pendale Street		White Plains	NY	24067	USA	1323
321	Corporate Gift Ideas Co.	Brown	Julie	6505551386	7734 Strong St.		San Franc...	CA	94217	USA	1165
363	Online Diecast Creations ...	Young	Dorothy	6035558647	2304 Long Airport Avenue		Nashua	NH	62005	USA	1216

Object Info Session customers 4 x

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## Repo (+13) Q3

- 1) Banking and securities
- 2) Communication, media and entertainment
- 3) Healthcare providers
- 4) education
- 5) Government
- 6) Insurance
- 7) Transportation.

\* Database used for storing, maintaining and accessing any sort of data they collect information on people, places or things. That information is gathered in one place so that it can be observed and analyzed. Database can be thought of as an organized collection of information.

\* Database Storage. The purpose of every database is to store information, text, images even media files all dynamic modern websites rely on one or more database for storing articles and other published content information about the users contact information connections to other websites, ads, etc.

\* There are five types of query in access they are  
1) Select queries 2) action queries 3) Parameter queries  
4) Crosstab queries 5) SQL queries



Rept 7 (1) Q34

DBMS vendors provided us with various types of tools

According to the power of these tools and our needs we have to select the suitable one

I prefer the one which contains sufficient tools with proper size.

## Report 1 Q2)

A database management system is a software tool that enables users to manage a database in the database. These actions can range from simply querying data to defining database schemas that fundamentally affect the database structure.

Furthermore DBMS allow users to interact with a database securely and concurrently without interfering with each user and while maintaining data integrity.

Some ~~other~~ operation of database

- ① Configuring authentication and authorization
- ② Providing data backups and snapshots
- ③ Performance tuning
- ④ Data recovery

## Components of database system

### ① Storage engine:

The core component of the DBMS that interacts with the file system at an OS level to store data.

### ② Query Language:

- Data Definition Language.
- Data Manipulation Language.
- Data Control Language.
- Transaction Control Language.

### ③ Query Processor

### ④ Optimization engine

### ⑤ Metadata Catalog

### ⑥ log manager

### ⑦ Reporting and monitoring Data tools

### ⑧ Data utilities



## Report (11) (Q 11)

What is meant by Term Data in the Computer science? Give some examples, Then state the relation between Data and Information?

**Data:** is a Collection of raw unorganised facts and details like Text, observations, figures, symbols and description of things.

In other word data does not carry any specific purpose and has no significance by itself. Moreover data is measured in terms of bit and bytes which are basic units of Information in the Context of Computer storage and processing.

**Information:** is the processed organized and structured data. It provides context for data and enables decision making. For example a single Customer sale at a restaurant is data. This becomes information when the business is able to identify the most popular dish.



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## Regex

Short For Regular Expressions, they depend on

The so called pattern and can be called regex or regexp. It's a method used in describing text to search and match within the text or sentences to make a comparison on them and then extract

them or verify their validity, for example if you want to delete all the spaces in a file you can do it by manually searching in the file and deleting all the spaces that you found or to build a script that contains a huge number of conditions, loops and checks character for whether it is a space or not. The last solution is by using Regex. You can do all of the above with one simple phrase that does not exceed one line. Using regular expressions saves you time and a huge effort especially in dealing with large text you can use this technique with many languages such as java, PHP, Python, C, JavaScript and others.