

Tutorial – 5

Implement the following SQL Queries on Case study 1

- 1) Create all the necessary tables with all the required constraints
- 2) Insert appropriate data into the tables

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'myschema' database with tables 'citizen', 'country', 'covidcentre', 'testresult', and 'worldstatistics'. The 'SQL Editor' shows a query: `SELECT * FROM citizen;`. The 'Result Grid' displays the following data:

ssn	name	cname
1	rajesh	india
2	john	USA
3	zing	UK
NULL	NULL	NULL

The 'Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
7	18:05:30	TRUNCATE 'myschema'. 'citizen'	OK	0.000 sec
8	18:05:38	DROP TABLE 'myschema'. 'citizen'	0 row(s) affected	0.156 sec
9	18:06:27	CREATE TABLE citizen(ssn INT NOT NULL,name VARCHAR(25),cname VARCHA...	0 row(s) affected	1.594 sec
10	18:08:02	INSERT INTO citizen VALUES(1,'rajesh','india'),(2,'john','USA'),(3,'zing','UK')	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.375 sec
11	18:08:23	SELECT * FROM citizen LIMIT 0, 1000	3 row(s) returned	0.109 sec / 0.000 sec

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'myschema' database with tables 'citizen', 'country', 'covidcentre', 'testresult', and 'worldstatistics'. The 'SQL Editor' shows a query: `SELECT * FROM country;`. The 'Result Grid' displays the following data:

cid	cname	population
1	India	1000000
2	Germany	100000
3	United States	500000
NULL	NULL	NULL

The 'Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
28	19:40:15	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
29	19:40:34	UPDATE worldstatistics SET recovery=10000 WHERE cid=91	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
30	19:40:53	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
31	19:41:22	SELECT cname, population FROM country LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
32	19:42:03	SELECT * FROM country LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

KLEF x

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Navigator

SCHEMAS

Filter objects

acme

myschema

Tables

citizen

country

covidcentre

testresult

worldstatistics

Views

Stored Procedures

Functions

Administration Schemas

Information

Connection Details

KLEF

127.0.0.1

3306

us radhakrishna

us radhakrishna@localhost

us TLS_AES_256_GCM_SHA384

Server MySQL Community

Object Info Session

SQL File 4*

1 SELECT * FROM covidcentre;

Limit to 1000 rows

Result Grid

cid	centrecode	centrelocation
91	3085	mumbai
93	3084	dallas

Output

Action Output

#	Time	Action	Message	Duration / Fetch
20	19:33:21	desc covidcentre	3 row(s) returned	0.031 sec / 0.000 sec
21	19:33:40	SELECT * FROM covidcentre LIMIT 0, 1000	2 row(s) returned	0.015 sec / 0.000 sec
22	19:35:18	SELECT * FROM myschema.country LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
23	19:35:45	UPDATE country SET cname="United States" WHERE cid=3	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec
24	19:38:35	SELECT * FROM covidcentre LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

Form Editor

Apply Revert Context Help Snippets

Type here to search

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MySQL Workbench

KLEF x

File Edit View Query Database Server Tools Scripting Help

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Object Info Session

SQL File 4*

1 SELECT * FROM testresult;

Limit to 1000 rows

Result Grid

patientid	cid	result	date
30285	92	positive	2020-09-7
30291	93	negative	2020-08-6
30594	89	negative	2020-09-8
31245	91	positive	2020-08-9

Output

Action Output

#	Time	Action	Message	Duration / Fetch
60	20:06:46	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	2 row(s) returned	0.000 sec / 0.000 sec
61	20:07:10	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
62	20:07:29	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	1 row(s) returned	0.000 sec / 0.000 sec
63	20:08:02	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
64	20:10:01	SELECT * FROM testresult LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

Form Editor

Apply Revert Context Help Snippets

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ENG IN 20:10 09-09-2020

MySQL Workbench interface showing a query result for the `worldstatistics` table. The query is `SELECT * FROM worldstatistics;`. The result grid displays the following data:

cid	cname	infected	died	recovery
91	india	100000	20000	20000
92	United States	200000	40000	10000

The bottom panel shows the Action Output log with the following entries:

#	Time	Action	Message	Duration / Fetch
59	20:06:19	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	2 row(s) returned	0.000 sec / 0.000 sec
60	20:06:46	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	2 row(s) returned	0.000 sec / 0.000 sec
61	20:07:10	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
62	20:07:29	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	1 row(s) returned	0.000 sec / 0.000 sec
63	20:08:02	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

3) Display the population of each country

MySQL Workbench interface showing a query result for the `country` table. The query is `SELECT cname, population FROM country;`. The result grid displays the following data:

cname	population
India	1000000
Germany	100000
United States	500000

The bottom panel shows the Action Output log with the following entries:

#	Time	Action	Message	Duration / Fetch
27	19:40:01	UPDATE worldstatistics SET recovery=10000 WHERE cid=92	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
28	19:40:15	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
29	19:40:34	UPDATE worldstatistics SET recovery=10000 WHERE cid=91	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
30	19:40:53	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
31	19:41:22	SELECT cname, population FROM country LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

4) Show the highest number of confirmed corona virus cases in the world.

MySQL Workbench

KLEF x

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SCHEMAS

Filter objects

acme

myschema

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citizen

country

covidcentre

testresult

worldstatistics

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Object Info Session

SQL File 4*

Limit to 1000 rows

1 SELECT max(infected) FROM worldstatistics;

Result Grid

max(infected)

200000

Result 6 x

Read Only

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
29	19:40:34	UPDATE worldstatistics SET recovery=10000 WHERE cid=91	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
30	19:40:53	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
31	19:41:22	SELECT cname, population FROM country LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
32	19:42:03	SELECT * FROM country LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
33	19:43:17	SELECT max(infected) FROM worldstatistics LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

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ENG 19:43 IN 09-09-2020

TUTORIAL -5

(CONTINUATION)

1) Display the top 5 countries affected with corona virus.

The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `SELECT * FROM worldstatistics ORDER BY infected DESC LIMIT 5;`. The result grid displays the following data:

id	cname	infected	died	recovery
92	United States	200000	40000	10000
91	India	100000	20000	10000

The Action Output pane shows the execution of the query, indicating that 2 row(s) were returned.

2) Display the countries with death toll above 1000

The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `SELECT * FROM worldstatistics WHERE died>1000;`. The result grid displays the following data:

id	cname	infected	died	recovery
91	India	100000	20000	10000
92	United States	200000	40000	10000

The Action Output pane shows the execution of the query, indicating that 2 row(s) were returned. An error message is also visible: "Error Code: 1054. Unknown column 'death' in 'where clause'".

3) Display the record of all corona virus affected countries which starts with 'United'

MySQL Workbench

KLEF x

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Navigator

SCHEMAS

Filter objects

acme myschema

Tables

citizen country covidcentre testresult worldstatistics

Views Stored Procedures Functions

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Object Info Session

SQL File 4* x

Limit to 1000 rows

1 SELECT * FROM worldstatistics WHERE cname LIKE "United%";

Result Grid

cid	cname	infected	died	recovery
92	United States	200000	40000	10000

worldstatistics 12 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
34	19:43:55	SELECT * FROM worldstatistics ORDER BY infected DESC LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
35	19:44:10	SELECT * FROM worldstatistics ORDER BY infected DESC LIMIT 5	2 row(s) returned	0.000 sec / 0.000 sec
36	19:45:45	SELECT * FROM worldstatistics WHERE death>1000 LIMIT 0, 1000	Error Code: 1054. Unknown column 'death' in 'where clause'	0.000 sec
37	19:45:56	SELECT * FROM worldstatistics WHERE died>1000 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
38	19:46:41	SELECT * FROM worldstatistics WHERE cname LIKE "United%" LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

SQLAdditions

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4) Display the country with highest recovery rate.

MySQL Workbench

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Navigator

SCHEMAS

Filter objects

acme myschema

Tables

citizen country covidcentre testresult worldstatistics

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Connection Details

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Object Info Session

SQL File 4* x

Limit to 1000 rows

1 SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM worldstatistics);

Result Grid

cid	cname	infected	died	recovery
91	india	100000	20000	20000

testresult 22 worldstatistics 23 worldstatistics 26 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
58	20:06:00	SELECT * FROM worldstatistics WHERE recovered=(SELECT max(recovered) FROM ...	Error Code: 1054. Unknown column 'recovered' in 'where clause'	0.000 sec
59	20:06:19	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	2 row(s) returned	0.000 sec / 0.000 sec
60	20:06:46	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	2 row(s) returned	0.000 sec / 0.000 sec
61	20:07:10	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
62	20:07:29	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	1 row(s) returned	0.000 sec / 0.000 sec

SQLAdditions

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5) Discover the new cases in last 2 days

MySQL Workbench

KLEF x

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Navigator

SQL File 4* x

Limit to 1000 rows

1 SELECT * FROM testresult WHERE date>= current_date()-interval 2 day and date <= curdate();

Result Grid

patientid	cid	result	date
30285	92	positive	2020-09-7
30594	89	negative	2020-09-8

testresult 22 worldstatistics 23 testresult 29 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
61	20:07:10	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
62	20:07:29	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	1 row(s) returned	0.000 sec / 0.000 sec
63	20:08:02	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
64	20:10:01	SELECT * FROM testresult LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
65	20:11:29	SELECT * FROM testresult WHERE date>= current_date()-interval 2 day and date <=	2 row(s) returned	0.000 sec / 0.000 sec

Connection Details

KLEF
127.0.0.1
3306

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Server MySQL Community

Object Info Session

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6) Display the no. of dependents based on the present corona cases in each country in ascending order

MySQL Workbench

KLEF x

File Edit View Query Database Server Tools Scripting Help

Navigator

SQL File 4* x

Limit to 1000 rows

1 SELECT * FROM worldstatistics order by infected asc;

Result Grid

cid	cname	infected	died	recovery
91	india	100000	20000	20000
92	United States	200000	40000	10000

testresult 22 worldstatistics 23 worldstatistics 30 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
62	20:07:29	SELECT * FROM worldstatistics WHERE recovery=(SELECT max(recovery) FROM ...	1 row(s) returned	0.000 sec / 0.000 sec
63	20:08:02	SELECT * FROM worldstatistics LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
64	20:10:01	SELECT * FROM testresult LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
65	20:11:29	SELECT * FROM testresult WHERE date>= current_date()-interval 2 day and date <=	2 row(s) returned	0.000 sec / 0.000 sec
66	20:12:49	SELECT * FROM worldstatistics order by infected asc LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Connection Details

KLEF
127.0.0.1
3306

Us radhakrishna
Us radhakrishna@localhos
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Server MySQL Community

Object Info Session

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