Database Administration

Laboratory

Part 2. Operation on data in MySQL database

Most activities assisted by MySQL Workbench.

Please attach screenshots, issued statements, and produced files as parts of a project documentation.

1. Database synchronization

a) Synchronize database model from MySQL Workbench to empty database schema (change schema name in model to fit the database).
b) Export changes from database model to database schema containing tables.
c) Import changes from a database schema to the existing database model.
d) Synchronize changes in the model and database in both directions at once.
e) Create a new database model basing on existing database schema already containing tables.

2. Filling database tables with data – 2-3 rows in each table

a) Manipulate data by the means of insert/update/delete SQL statements. All insert statements should be put into the documentation. Please give just a few examples of update and delete statements.
b) Try to add/remove/update a record using the table view in MySQL Workbench. Put 1 screenshot of each activity into the documentation.

3. Generating DDL script

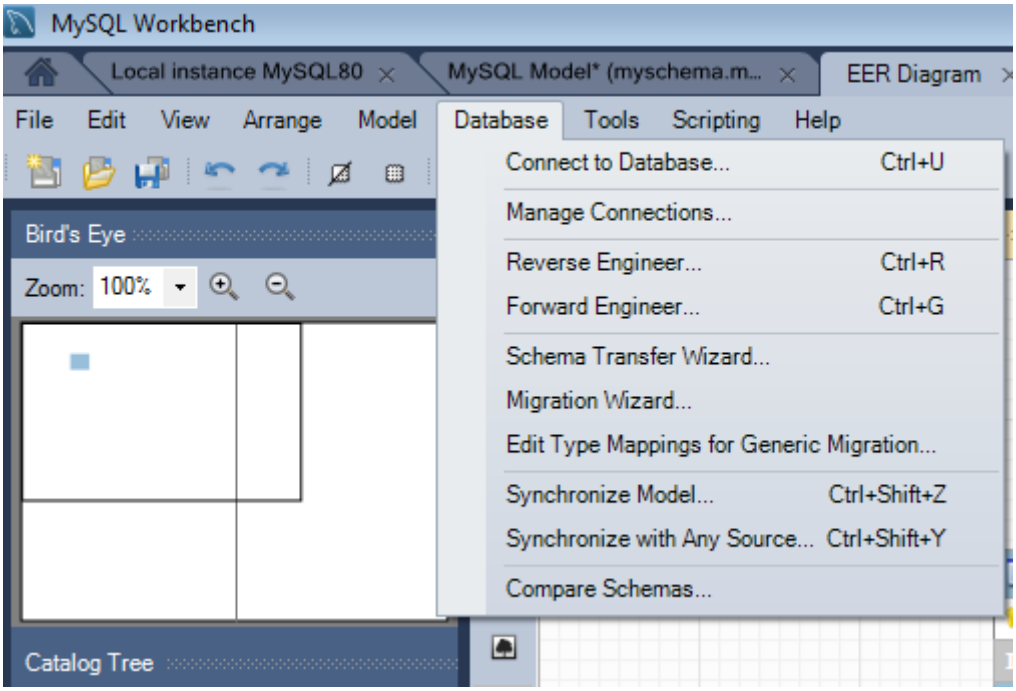
a) Generate DDL script based on a database model. Attach the script as part of documentation.
b) Generate DDL script based on a database schema. Attach the script as part of documentation.

4. Exporting and importing data as files

a) Export and import data (only data), to/from files, from chosen database tables. Use MySQL Workbench options.
b) Export data from a single table using *select into outfile* statement.
c) Export data returned by a SQL query joining many tables to a file using *select into outfile* statement.
d) Import data from a file to a single database table using *load data* statement.

5. Database dumps (data and definition of database objects)

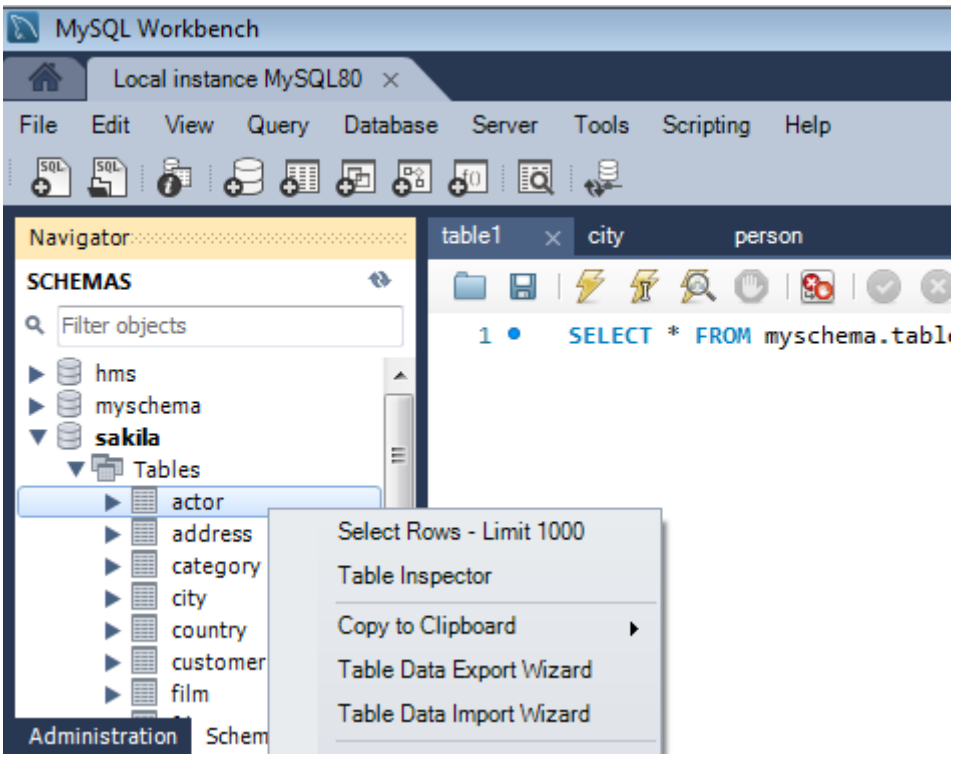
a) Make the whole database copy (dump) using MySQL Workbench options.
b) Make the whole database copy (dump) using mysqldump tool and operating system command line.
c) Restore a database basing on a database dump.



https://www.w3schools.com/sql/sql_insert.asp

https://www.w3schools.com/sql/sql_update.asp

https://www.w3schools.com/sql/sql_delete.asp


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
hms
myschema
sakila
Tables
actor
address
category
city
country
customer
film
Administration
Schem
table1
city
person
1 • SELECT * FROM myschema.tabl
Select Rows - Limit 1000
Table Inspector
Copy to Clipboard
Table Data Export Wizard
Table Data Import Wizard

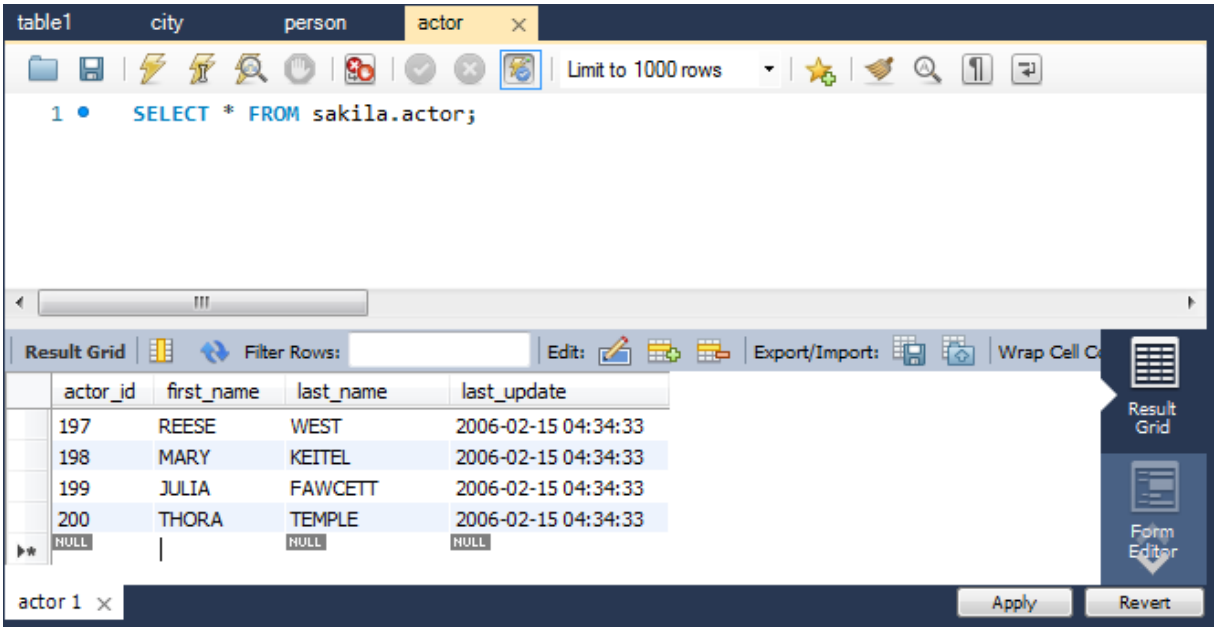
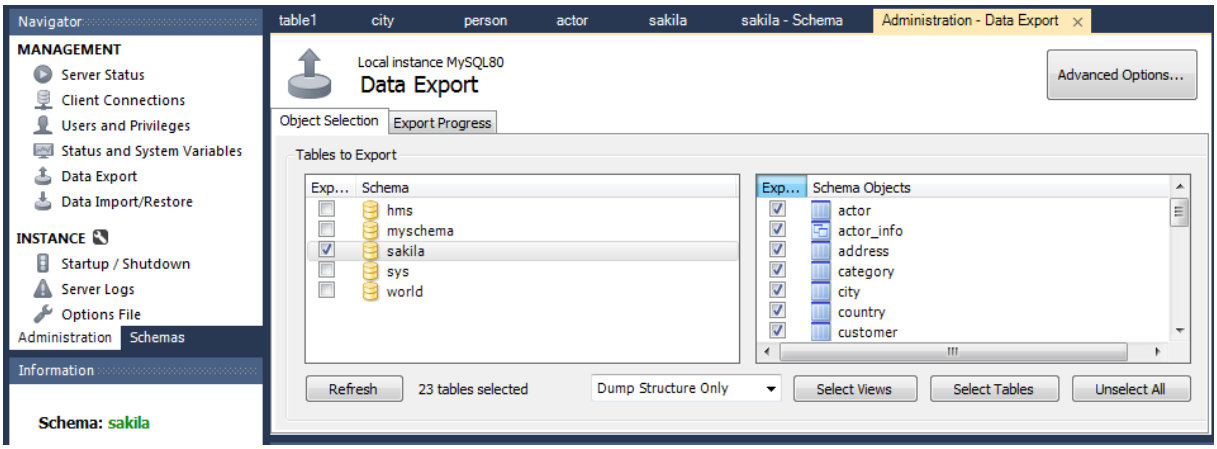


table1
city
person
actor
Limit to 1000 rows
1 • SELECT * FROM sakila.actor;
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell C
actor_id first_name last_name last_update
197 REESE WEST 2006-02-15 04:34:33
198 MARY KEITEL 2006-02-15 04:34:33
199 JULIA FAWCETT 2006-02-15 04:34:33
200 THORA TEMPLE 2006-02-15 04:34:33
NULL NULL NULL
Result Grid
Form Editor
actor 1
Apply
Revert



https://dev.mysql.com/doc/refman/8.0/en/select-into.html

https://dev.mysql.com/doc/refman/8.0/en/load-data.html

https://dev.mysql.com/doc/refman/8.0/en/using-mysqldump.html