Database System Labs
- create db and import dataset

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OBJECTIVES

- Python env config
- Create a new user and Grant DBA privilege
- Create a new DB and import some schemas
- SIMPLE QUERY STATEMENT
- quiz

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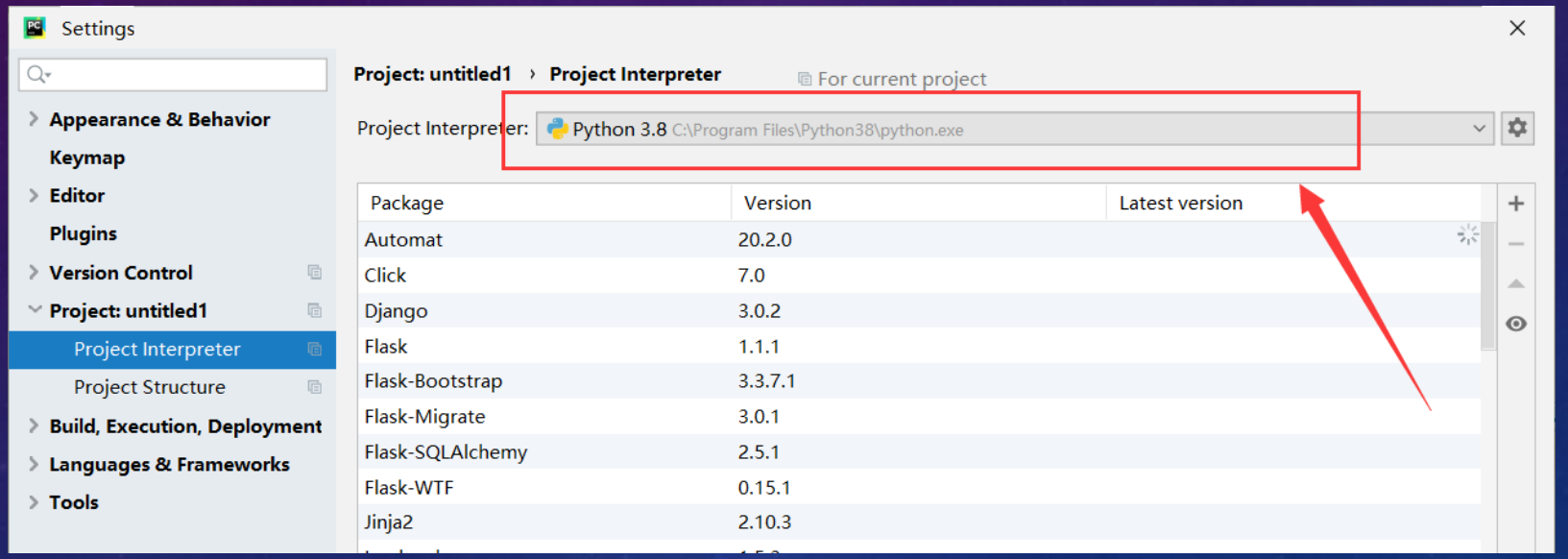
- Cmd中输入python能打出版本号即安装成功,否则需要配置环境变量

```
C:\Users\hp>python
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:37:50) [MSC v.1916
64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```



- Pycharm中File->Settings中选择好interpreter

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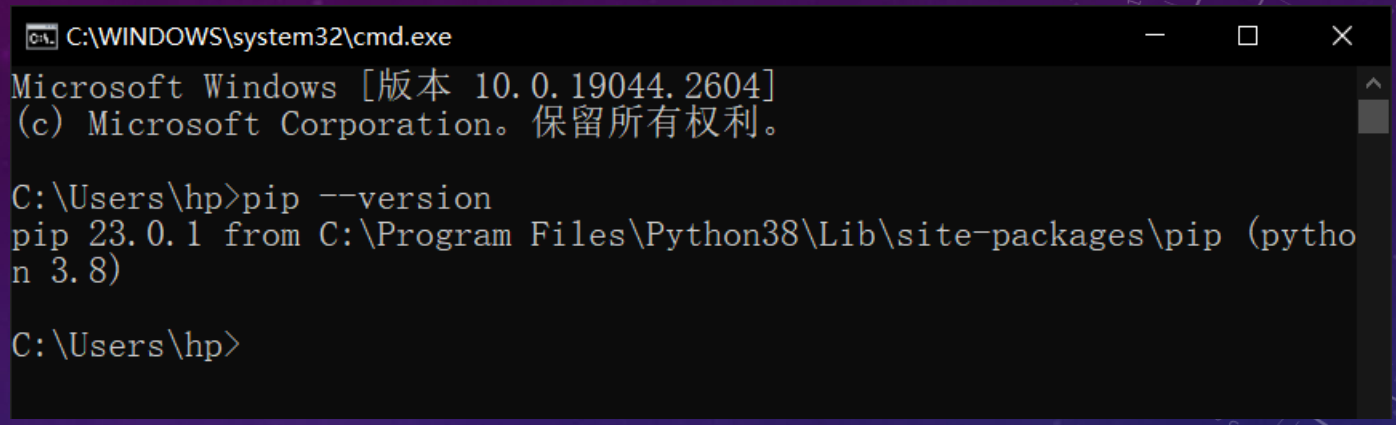
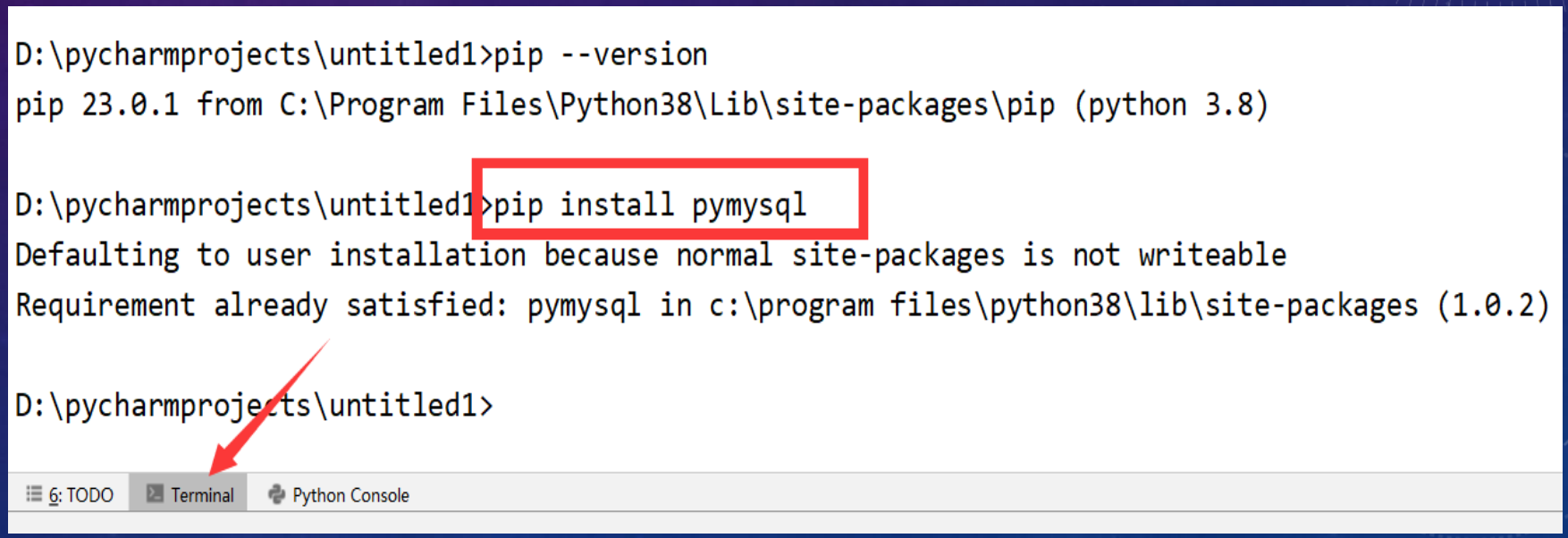
- 确保拥有pip(cmd里输入pip)



- 在terminal中使用pip安装pymysql



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CONNECTION

```
import pymysql
conn=pymysql.connect(host='localhost',user='root',password='123',database='sys',charset='utf8')
cursor=conn.cursor()
sql = 'select version()'
cursor.execute(sql)
retdat = cursor.fetchall()
for row in retdat:
    print(row[0])
cursor.close()
conn.close()
```

```
Database version : 8.0.19

Process finished with exit code 0
```

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Create a new user
and
Grant DBA privilege

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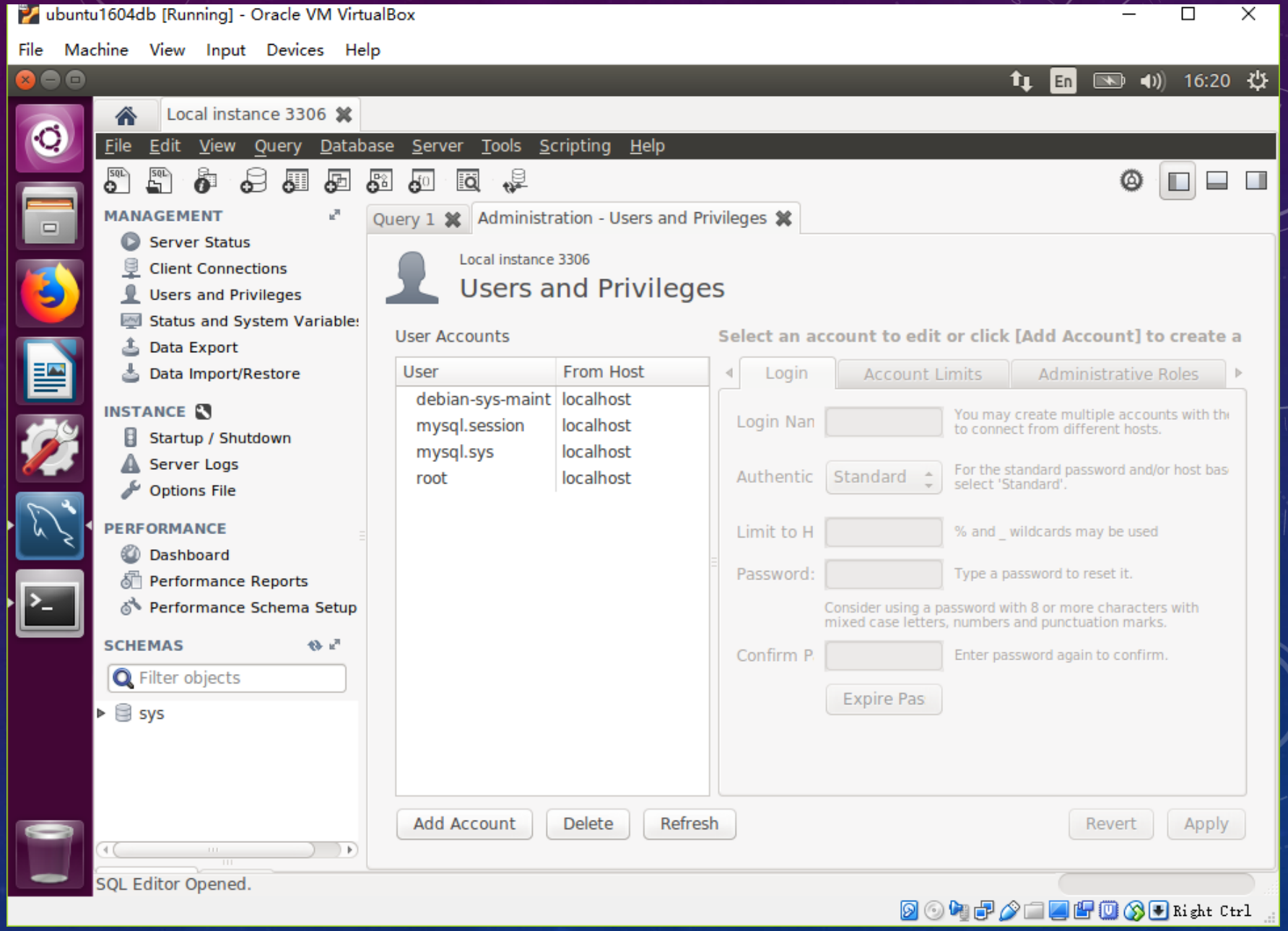
MYSQL: IMPORT DATA OF LABS

- Add DB User
  - myuser
    - mypwd



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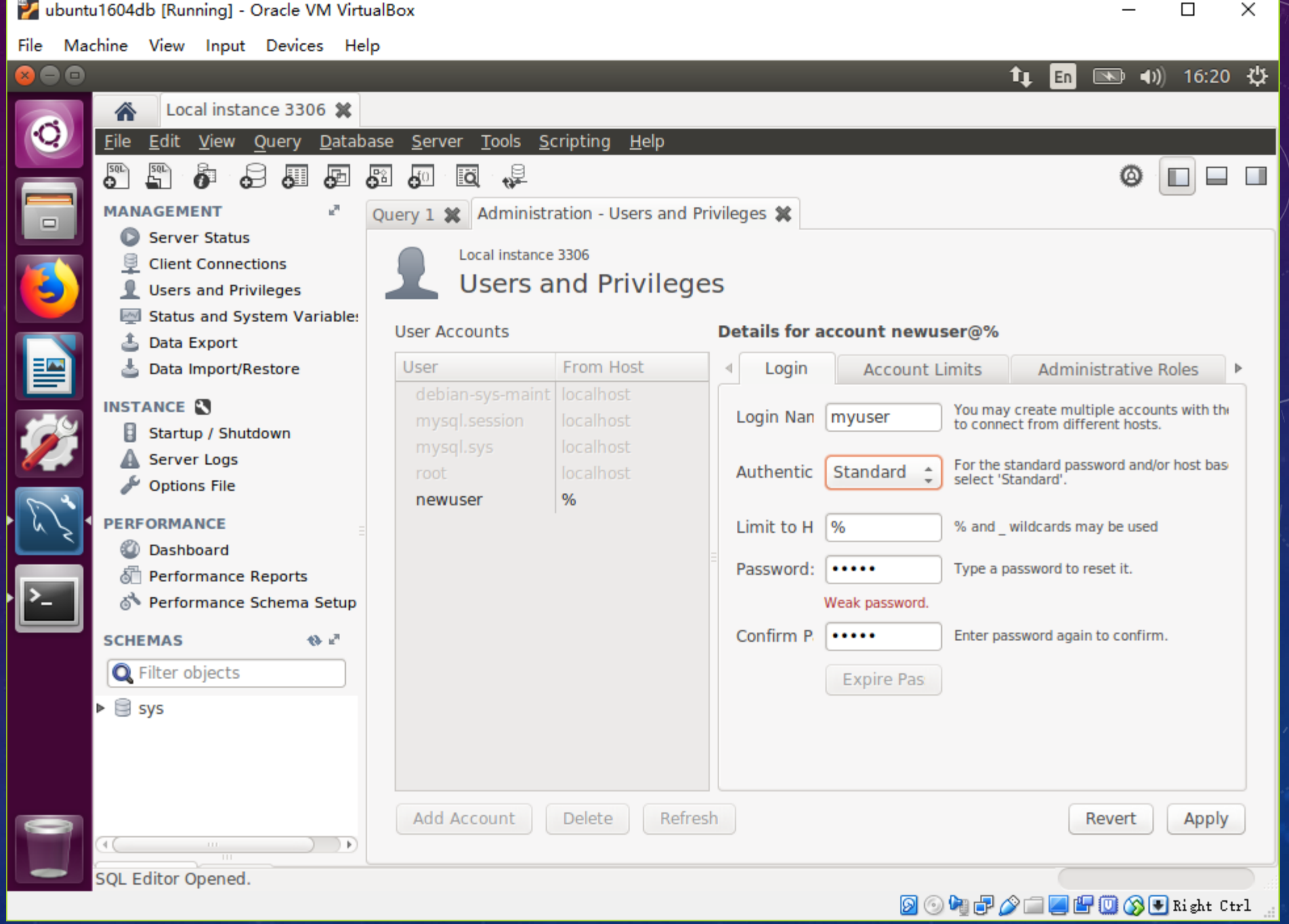

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MYSQL: IMPORT DATA OF LABS

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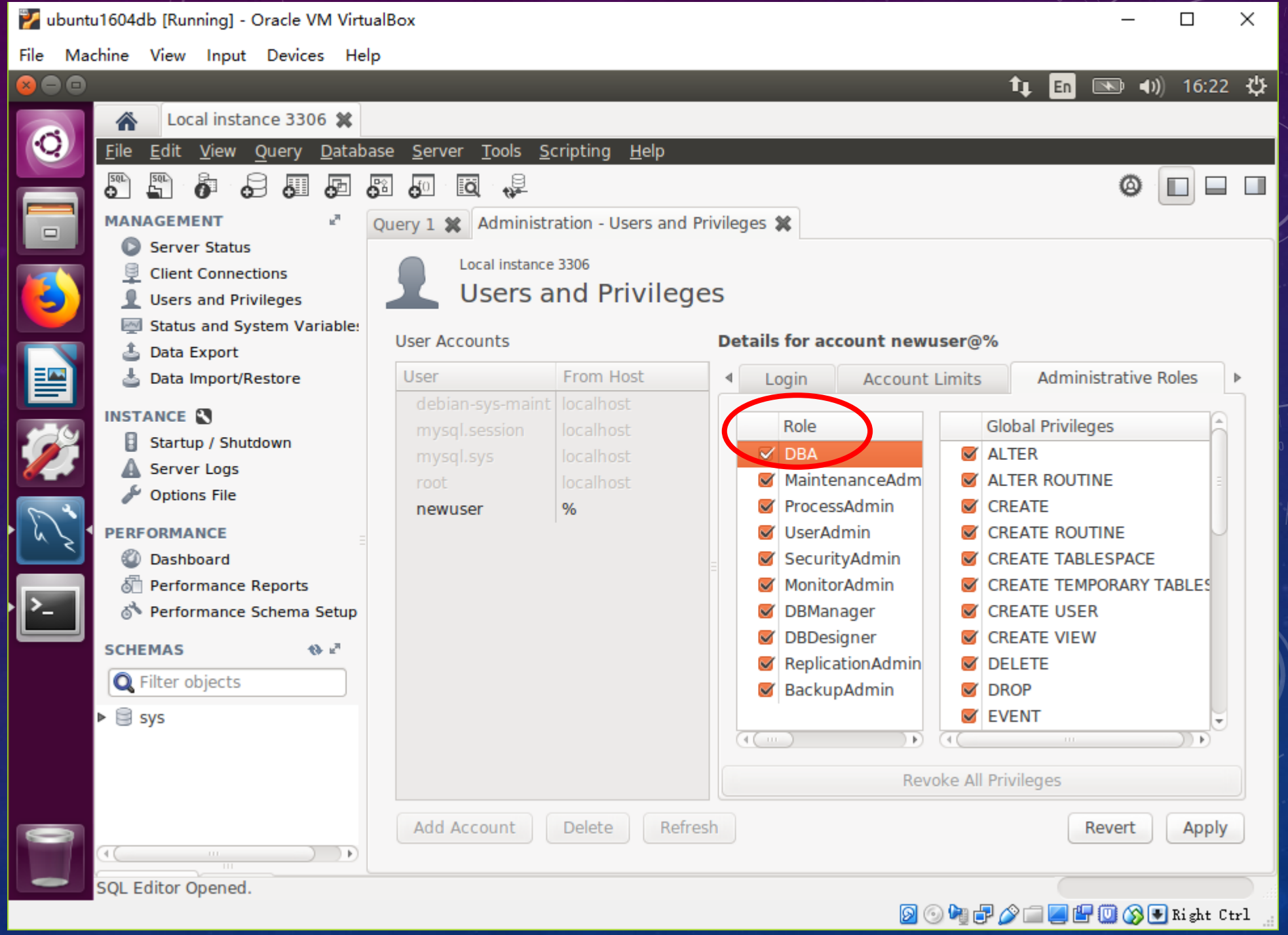

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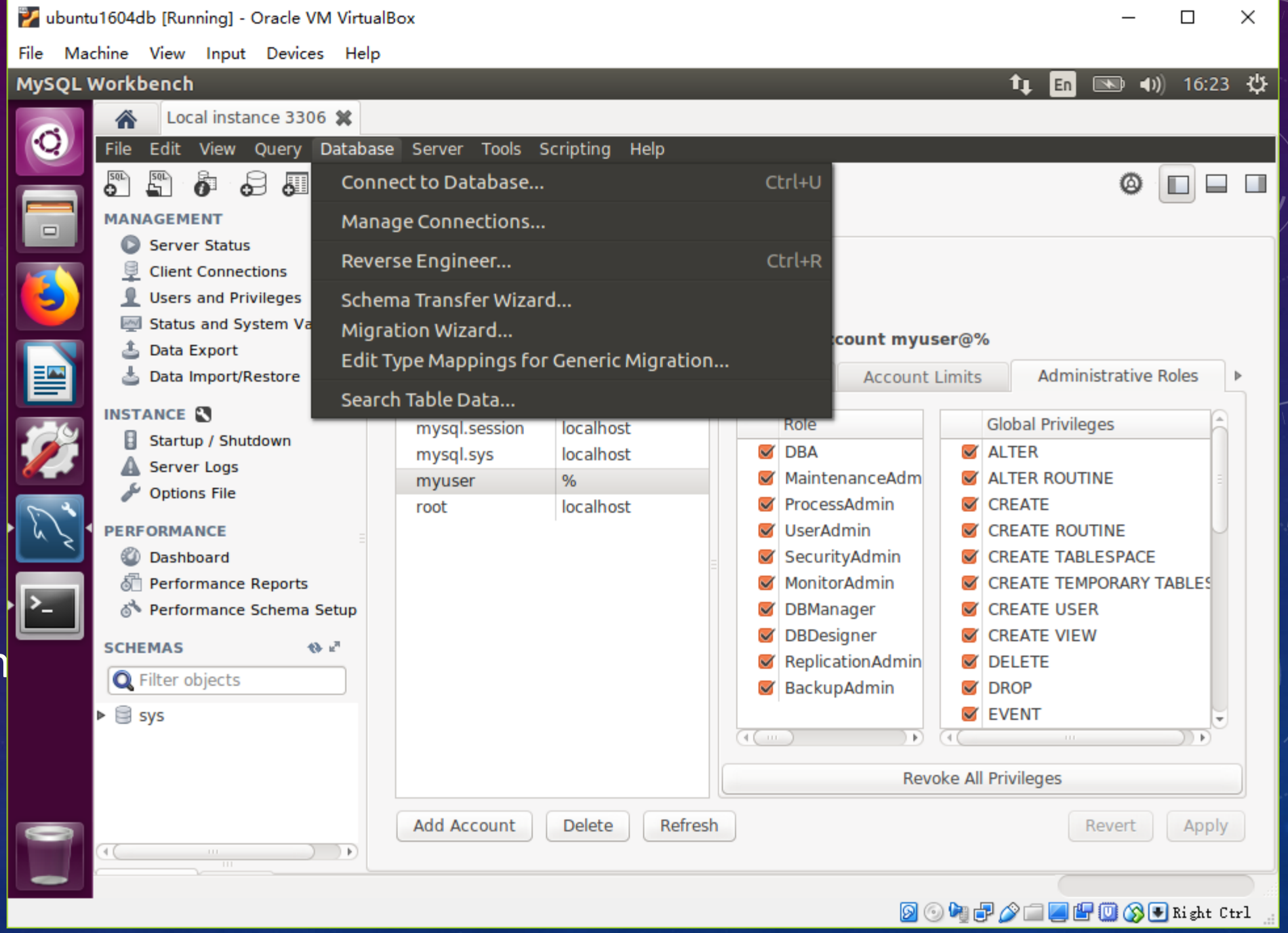
MYSQL: IMPORT DATA OF LABS

- New Connection



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MYSQL: IMPORT DATA OF LABS

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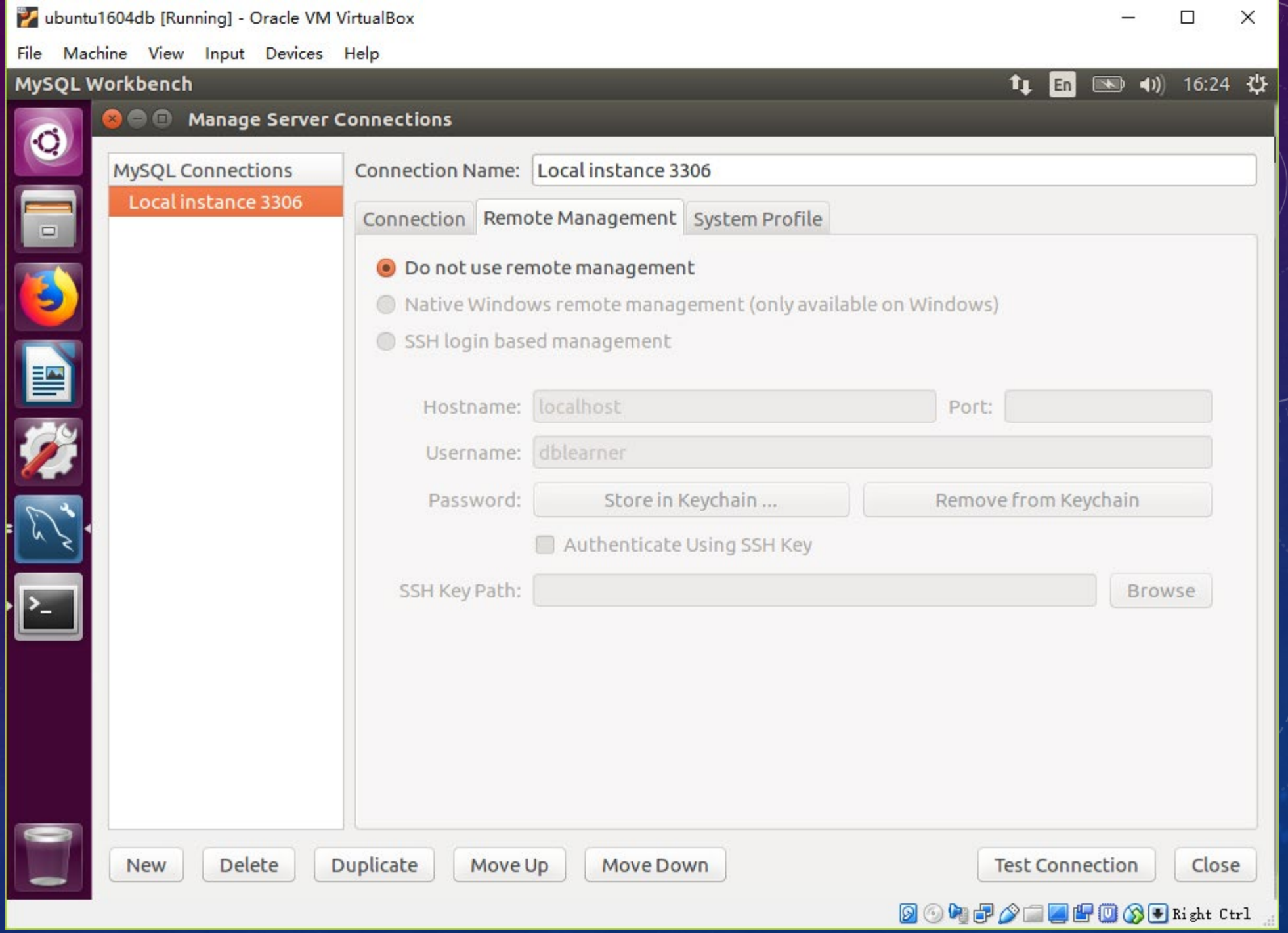

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MYSQL: IMPORT DATA OF LABS

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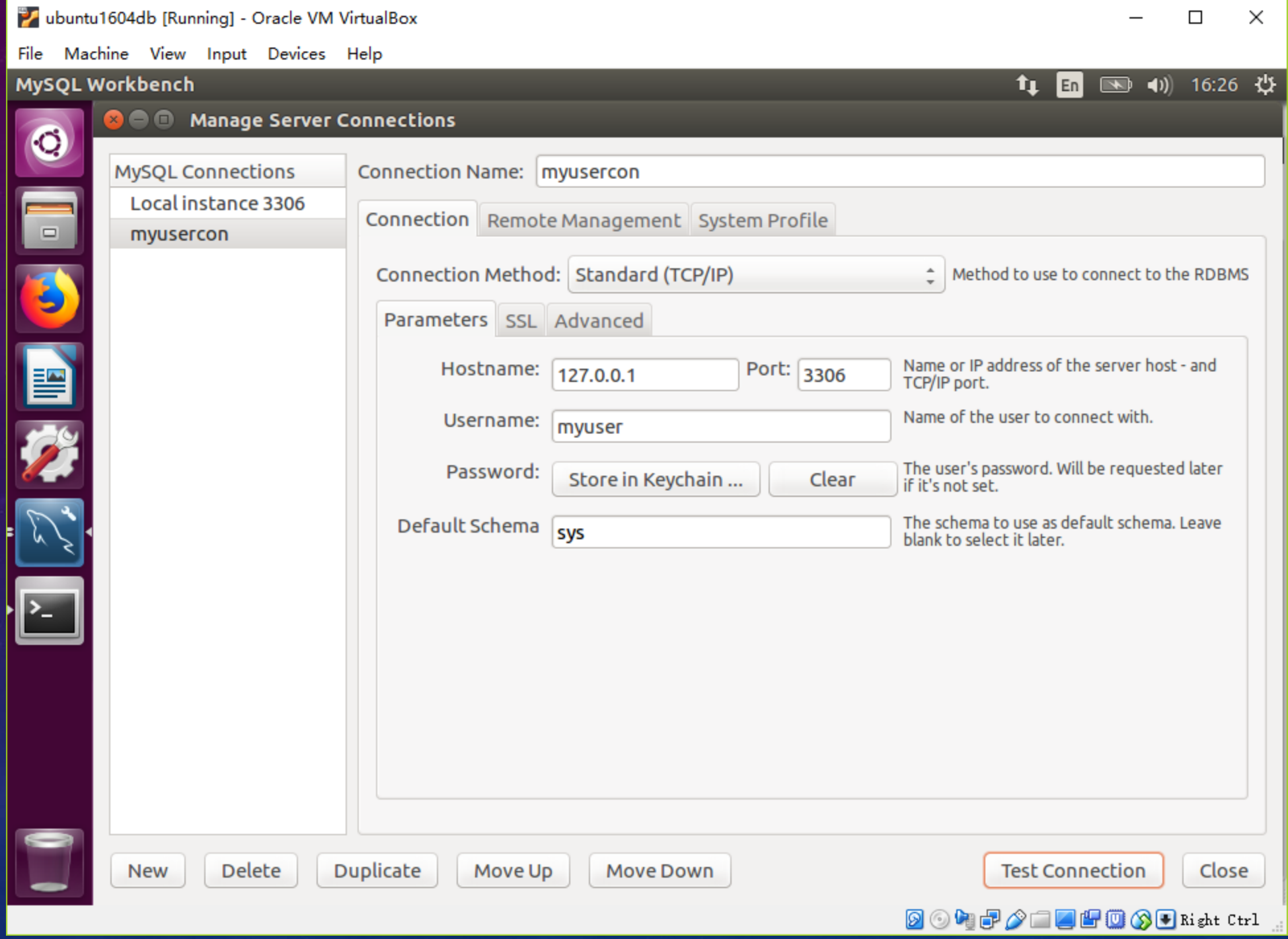

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MYSQL: IMPORT DATA OF LABS

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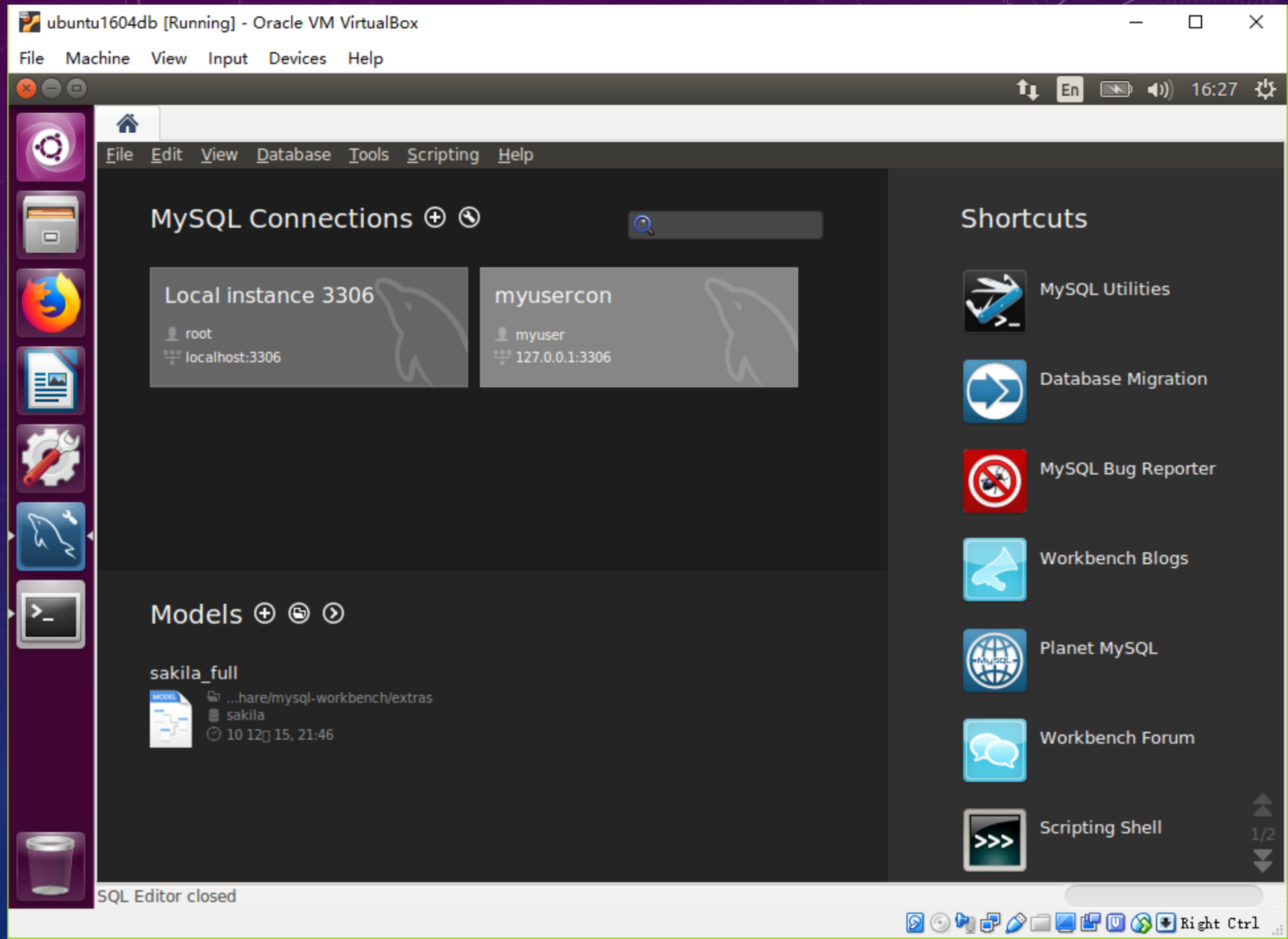

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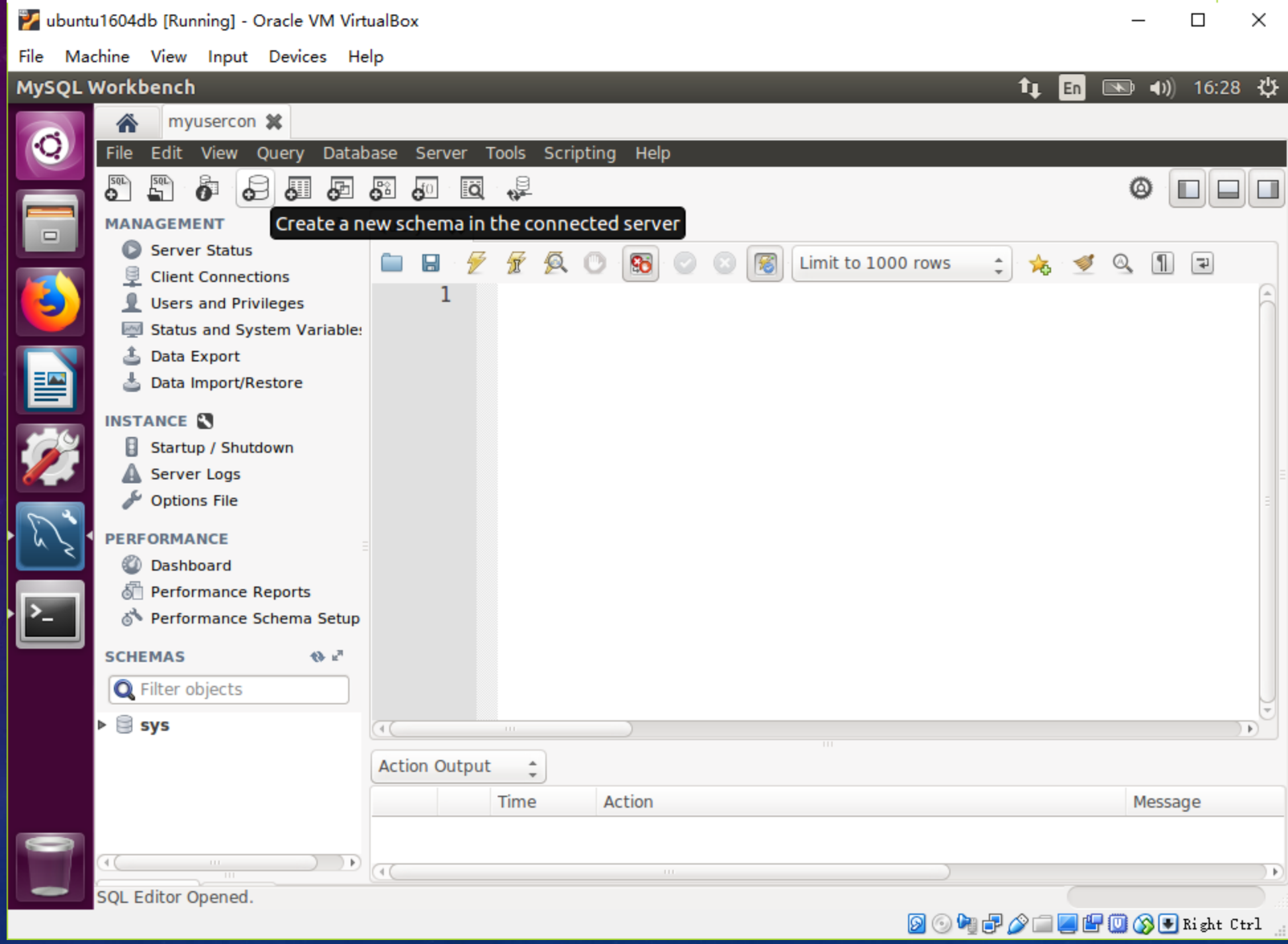
MYSQL: IMPORT DATA OF LABS

- New DB
  - dbsclab2018



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Create a new DB
and
import some schemas

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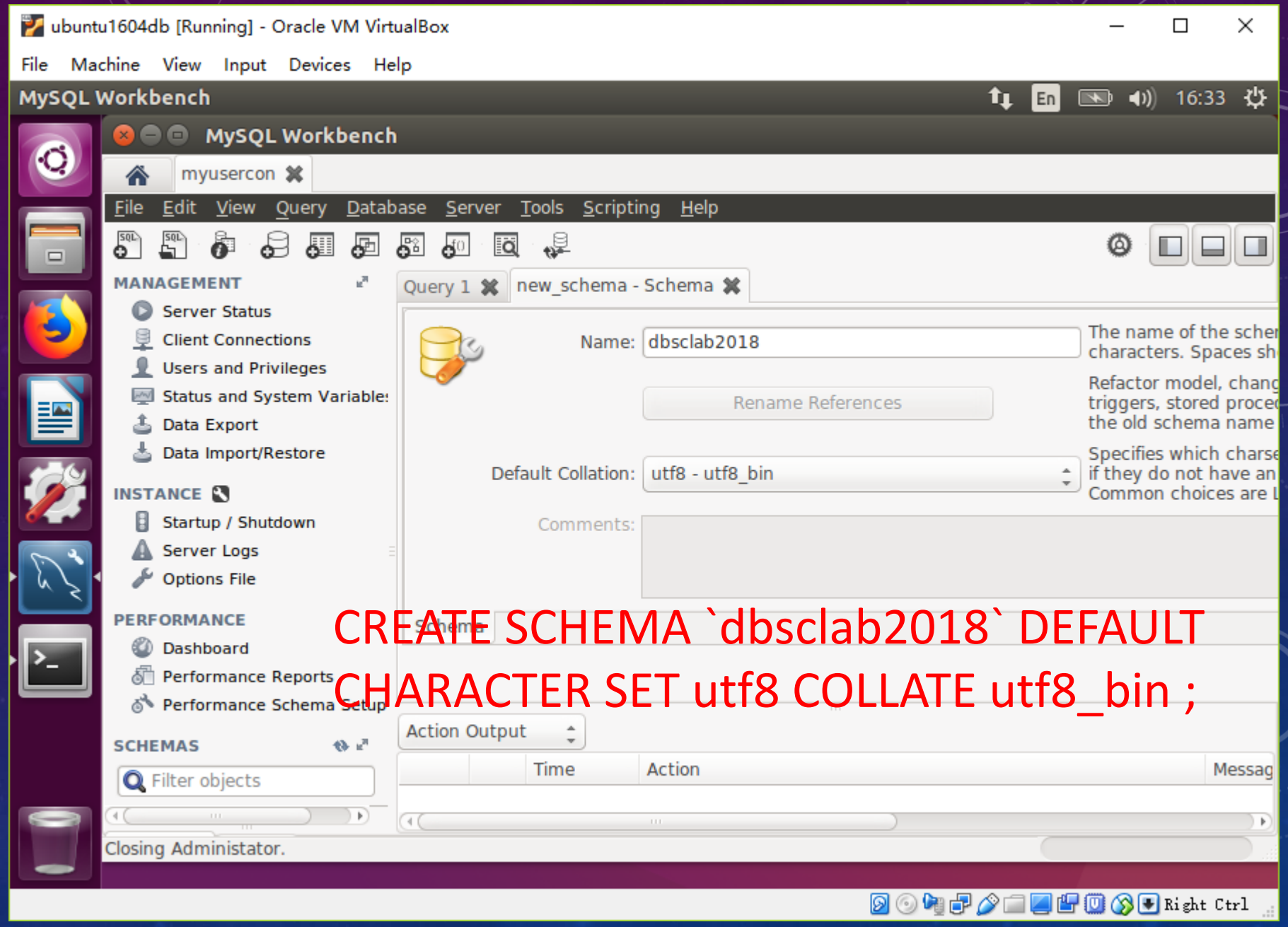
MYSQL: IMPORT DATA OF LABS

- New DB
  - dbsclab2018



CREATE SCHEMA `dbsclab2018` DEFAULT CHARACTER SET utf8 COLLATE utf8_bin ;

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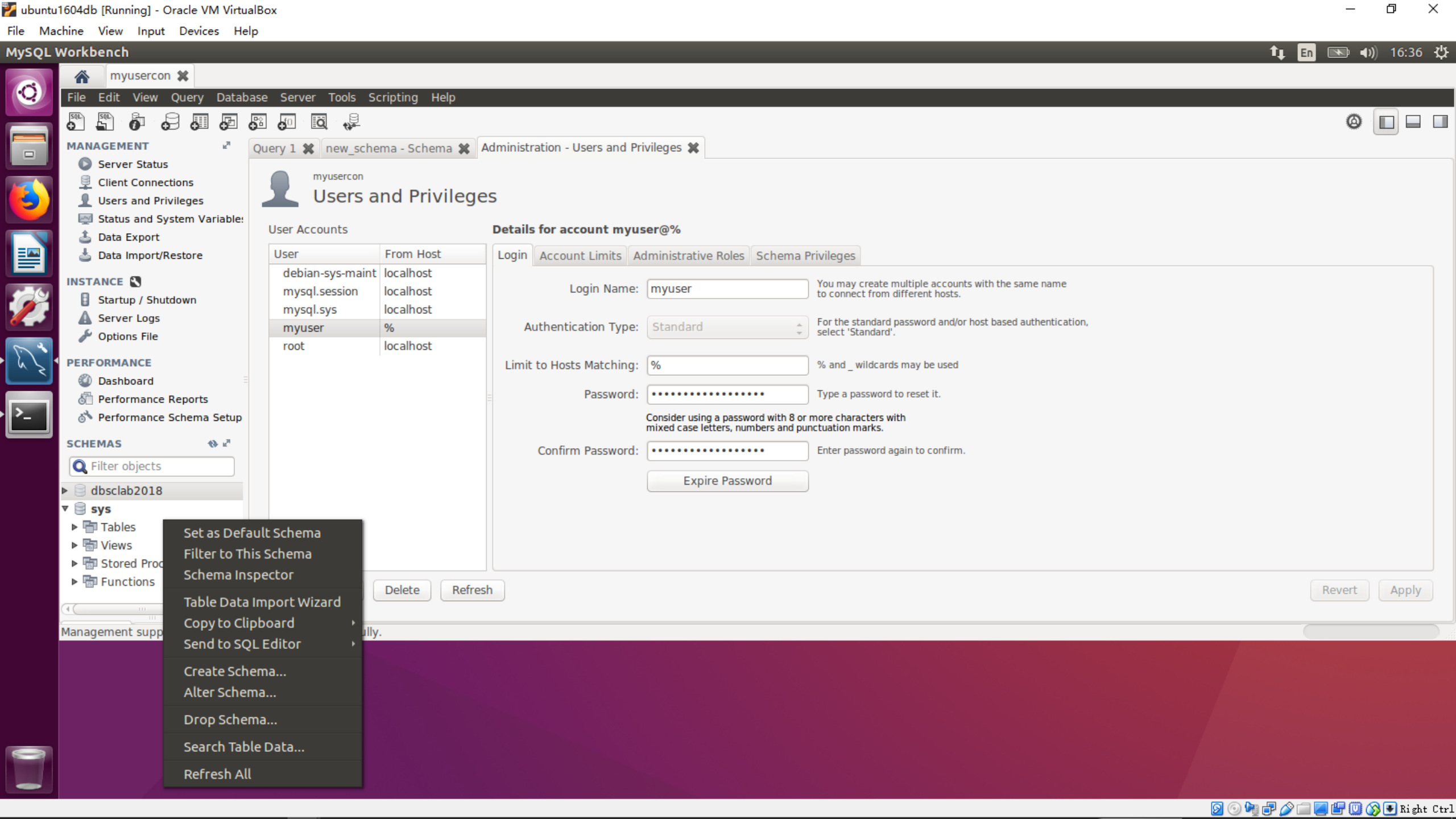
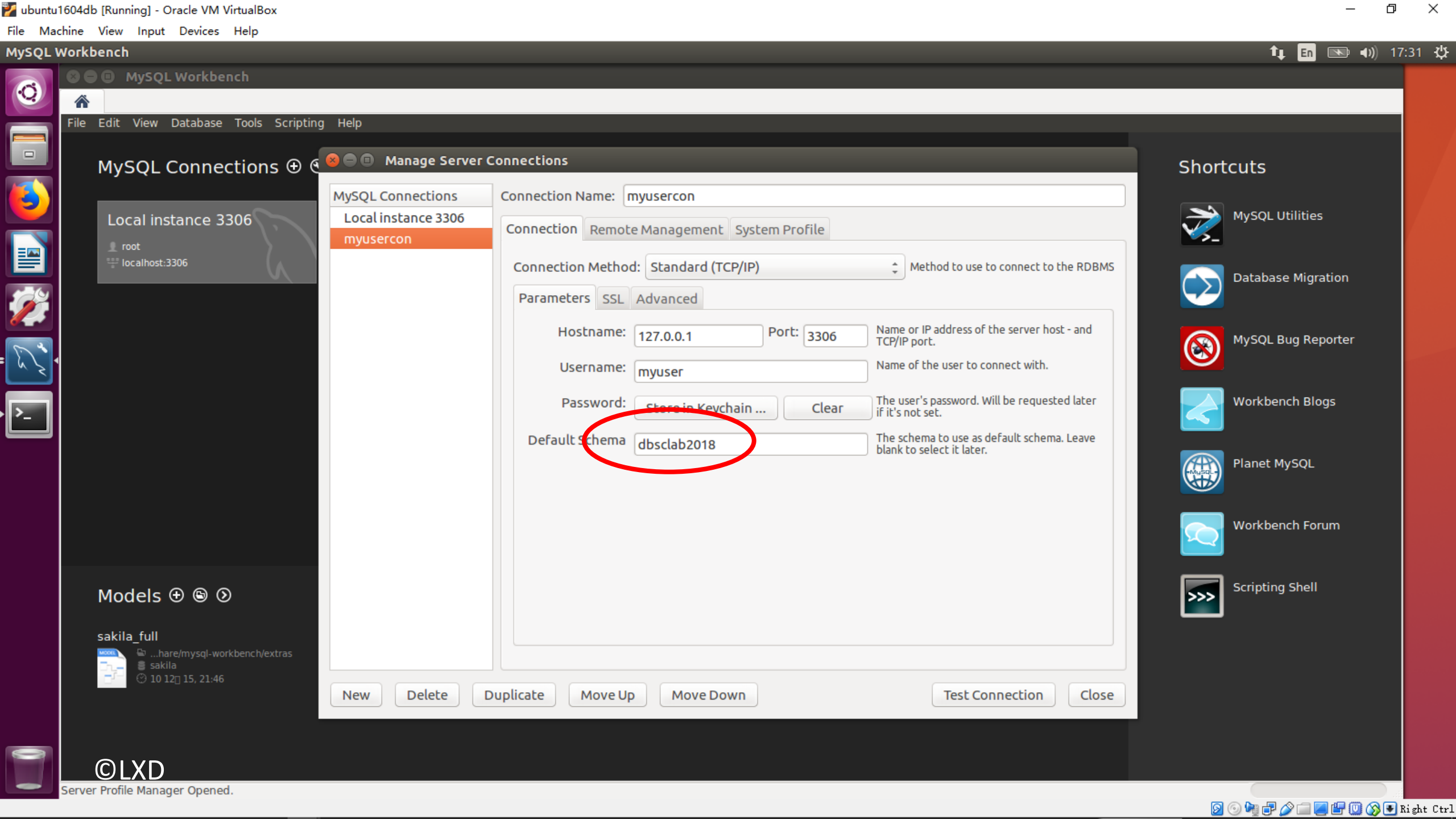

ubuntu1604db [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
MySQL Workbench
16:36
myusercon
File Edit View Query Database Server Tools Scripting Help
MANAGEMENT
Server Status
Client Connections
Users and Privileges
Status and System Variables
Data Export
Data Import/Restore
INSTANCE
Startup / Shutdown
Server Logs
Options File
PERFORMANCE
Dashboard
Performance Reports
Performance Schema Setup
SCHEMAS
Filter objects
dbsclab2018
sys
Tables
Views
Stored Proc
Functions
Query 1
new_schema - Schema
Administration - Users and Privileges
myusercon
Users and Privileges
User Accounts
User
From Host
debian-sys-maint
localhost
mysql.session
localhost
mysql.sys
localhost
myuser
%
root
localhost
Details for account myuser@%
Login
Account Limits
Administrative Roles
Schema Privileges
Login Name:
myuser
You may create multiple accounts with the same name to connect from different hosts.
Authentication Type:
Standard
For the standard password and/or host based authentication, select 'Standard'.
Limit to Hosts Matching:
%
% and _ wildcards may be used
Password:
Type a password to reset it.
Consider using a password with 8 or more characters with mixed case letters, numbers and punctuation marks.
Confirm Password:
Enter password again to confirm.
Expire Password
Delete
Refresh
Revert
Apply
Set as Default Schema
Filter to This Schema
Schema Inspector
Table Data Import Wizard
Copy to Clipboard
Send to SQL Editor
Create Schema...
Alter Schema...
Drop Schema...
Search Table Data...
Refresh All
Right Ctrl


ubuntu1604db [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
MySQL Workbench
17:31
MySQL Workbench
File Edit View Database Tools Scripting Help
MySQL Connections
Local instance 3306
root
localhost:3306
Manage Server Connections
MySQL Connections
Local instance 3306
myusercon
Connection Name: myusercon
Connection
Remote Management
System Profile
Connection Method: Standard (TCP/IP)
Method to use to connect to the RDBMS
Parameters
SSL
Advanced
Hostname: 127.0.0.1
Port: 3306
Name or IP address of the server host - and TCP/IP port.
Username: myuser
Name of the user to connect with.
Password:
Store in Keychain ...
Clear
The user's password. Will be requested later if it's not set.
Default Schema: dbsclab2018
The schema to use as default schema. Leave blank to select it later.
New
Delete
Duplicate
Move Up
Move Down
Test Connection
Close
Shortcuts
MySQL Utilities
Database Migration
MySQL Bug Reporter
Workbench Blogs
Planet MySQL
Workbench Forum
Scripting Shell
Models
sakila_full
...hare/mysql-workbench/extras
sakila
10 12 15, 21:46
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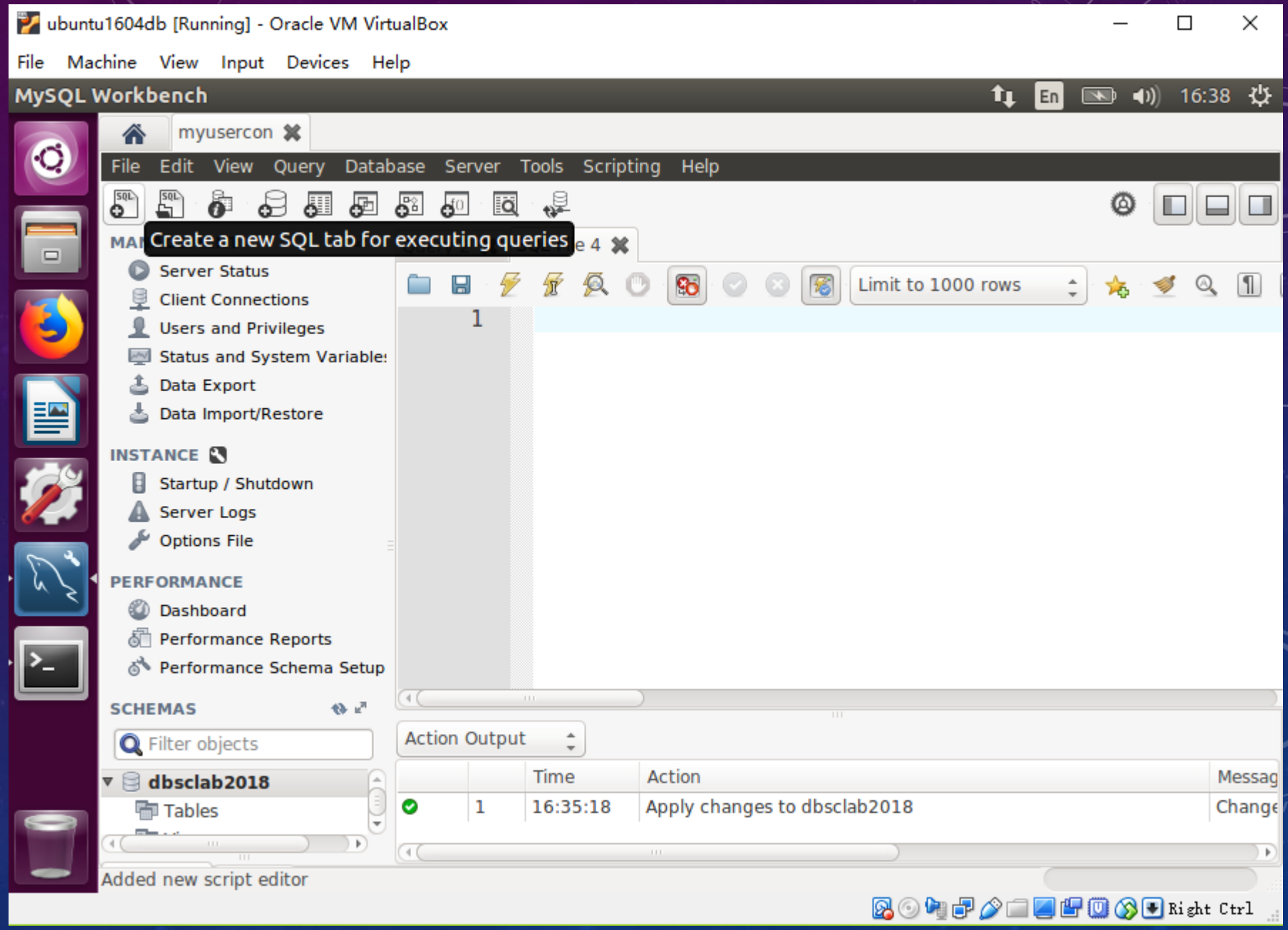
Server Profile Manager Opened.
Right Ctrl

MYSQL: IMPORT DATA OF LABS

- New DB
  - dbsclab2018



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```
create  table  stu(
id varchar(18), name varchar(18),  age int);

insert into stu
 values('123','xiaoming',18);

select * from stu;
```

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MYSQL: IMPORT DATA OF LABS

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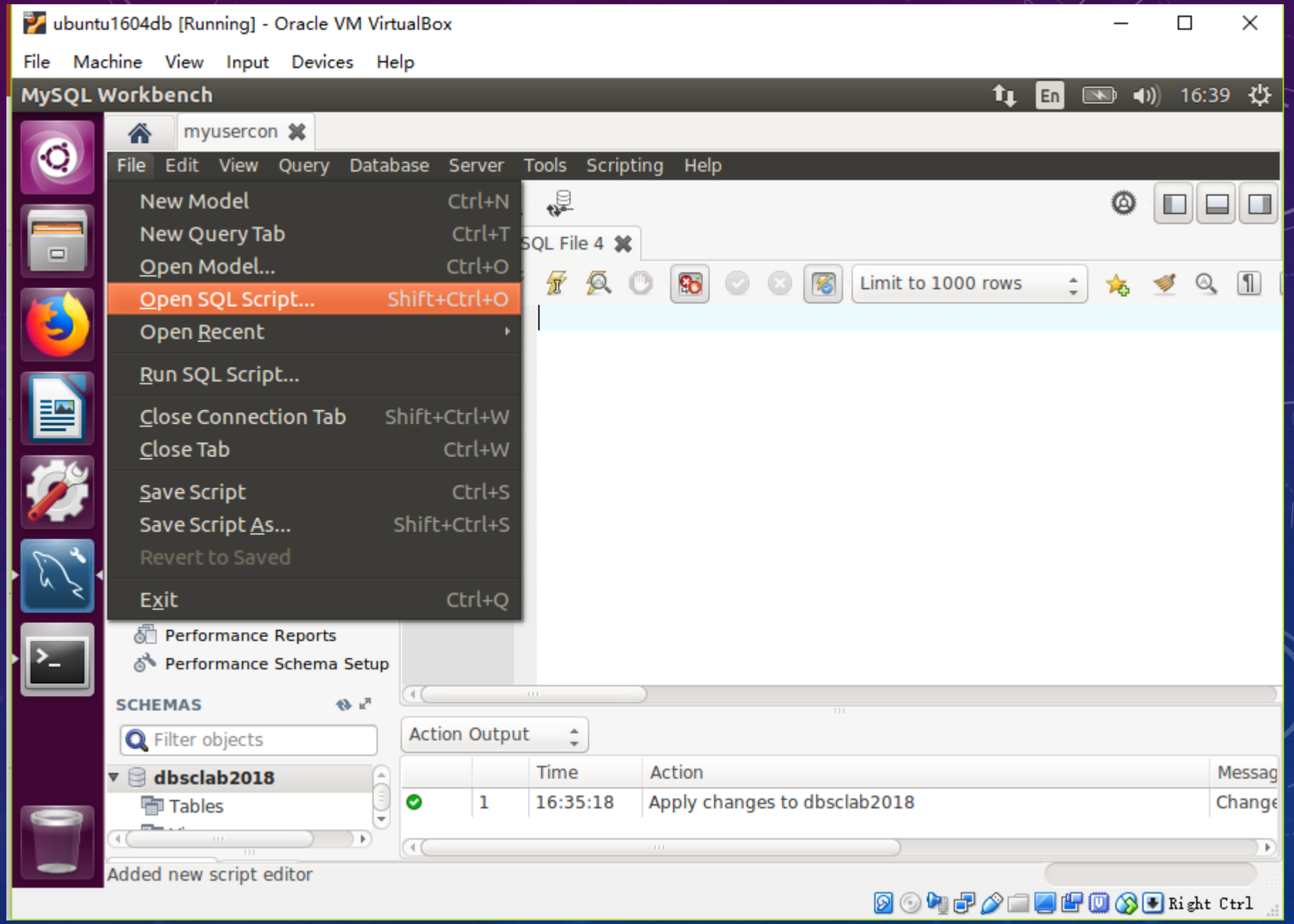

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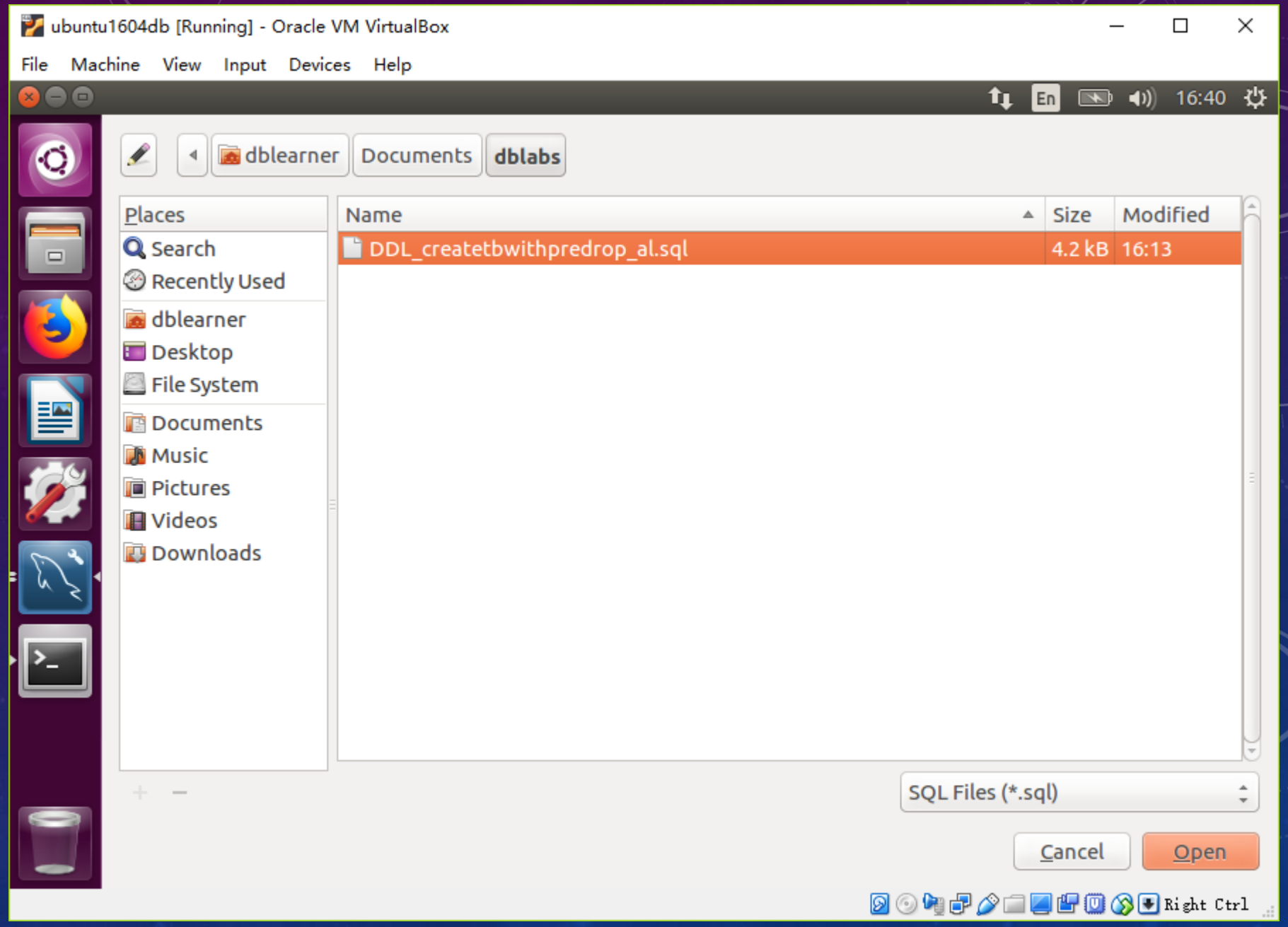

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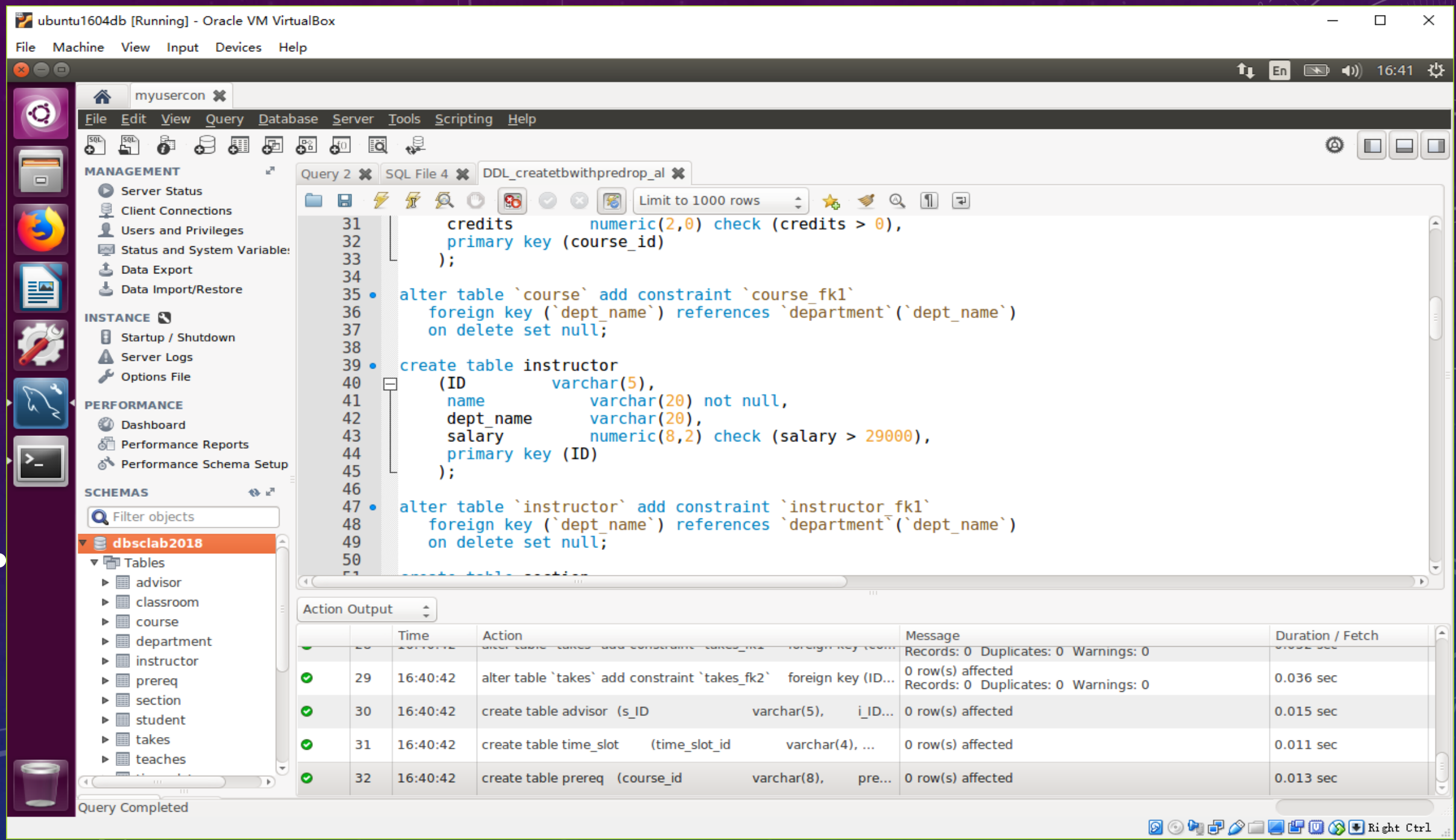
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myusercon
File Edit View Query Database Server Tools Scripting Help
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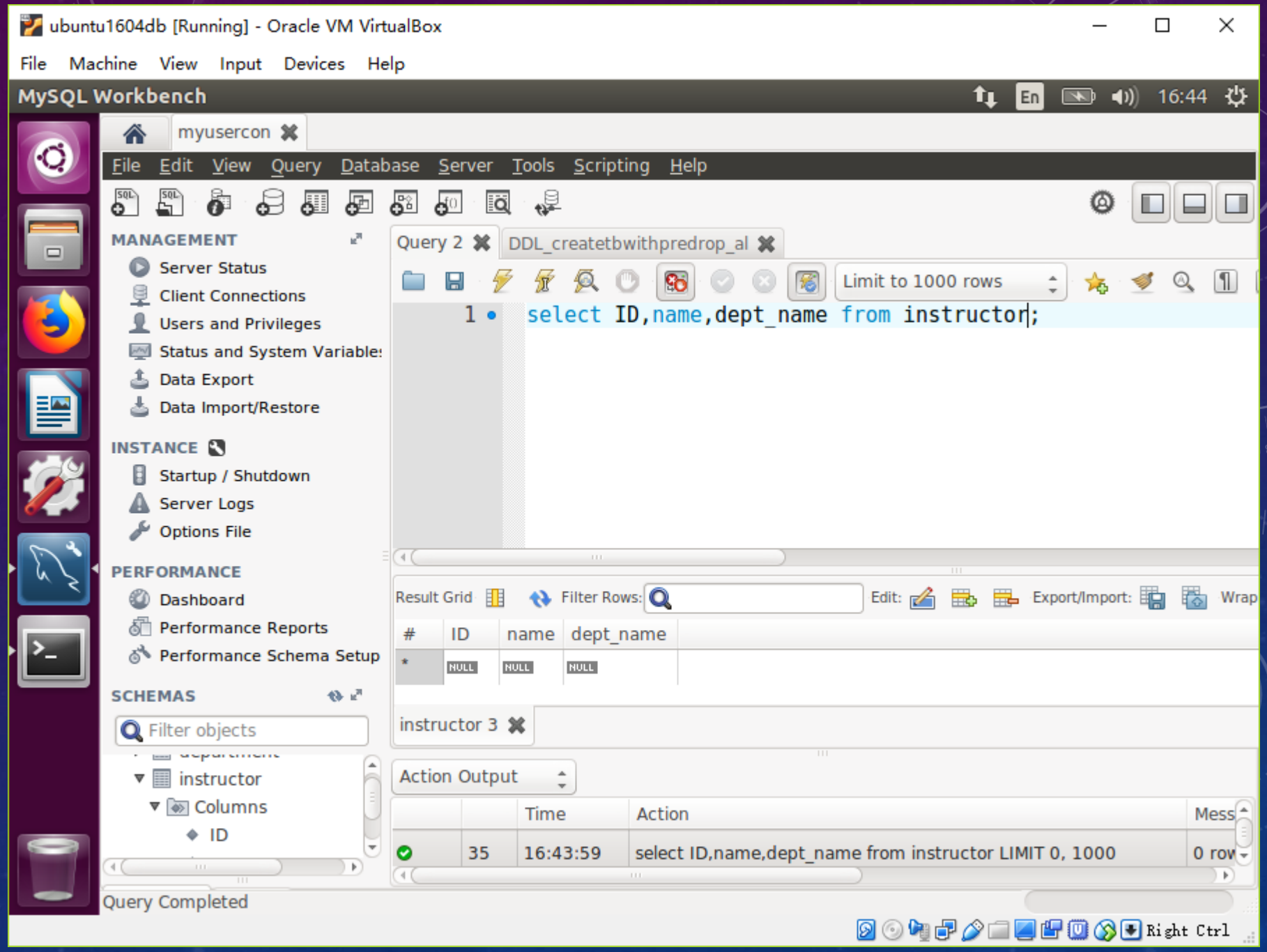
Server Logs
Options File
PERFORMANCE
Dashboard
Performance Reports
Performance Schema Setup
SCHEMAS
Filter objects
dbsclab2018
Tables
advisor
classroom
course
department
instructor
prereq
section
student
takes
teaches
Query 2
SQL File 4
DDL_createtbwithpredrop_al
Limit to 1000 rows
31 credits numeric(2,0) check (credits > 0),
32 primary key (course_id)
33);
34
35 alter table `course` add constraint `course_fk1`
36 foreign key (`dept_name`) references `department`(`dept_name`)
37 on delete set null;
38
39 create table instructor
40 (ID varchar(5),
41 name varchar(20) not null,
42 dept_name varchar(20),
43 salary numeric(8,2) check (salary > 29000),
44 primary key (ID)
45);
46
47 alter table `instructor` add constraint `instructor_fk1`
48 foreign key (`dept_name`) references `department`(`dept_name`)
49 on delete set null;
50
Action Output
Time Action Message Duration / Fetch
Records: 0 Duplicates: 0 Warnings: 0
29 16:40:42 alter table `takes` add constraint `takes_fk2` foreign key (ID... 0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0 0.036 sec
30 16:40:42 create table advisor (s_ID varchar(5), i_ID... 0 row(s) affected 0.015 sec
31 16:40:42 create table time_slot (time_slot_id varchar(4), ... 0 row(s) affected 0.011 sec
32 16:40:42 create table prereq (course_id varchar(8), pre... 0 row(s) affected 0.013 sec
Query Completed
Right Ctrl

MYSQL: IMPORT DATA OF LABS

- New DB
  - dbsclab2018



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MYSQL: IMPORT DATA OF LABS

- New DB
  - dbsclab2018
  - Disable Safe Updates
  - Restart workbench

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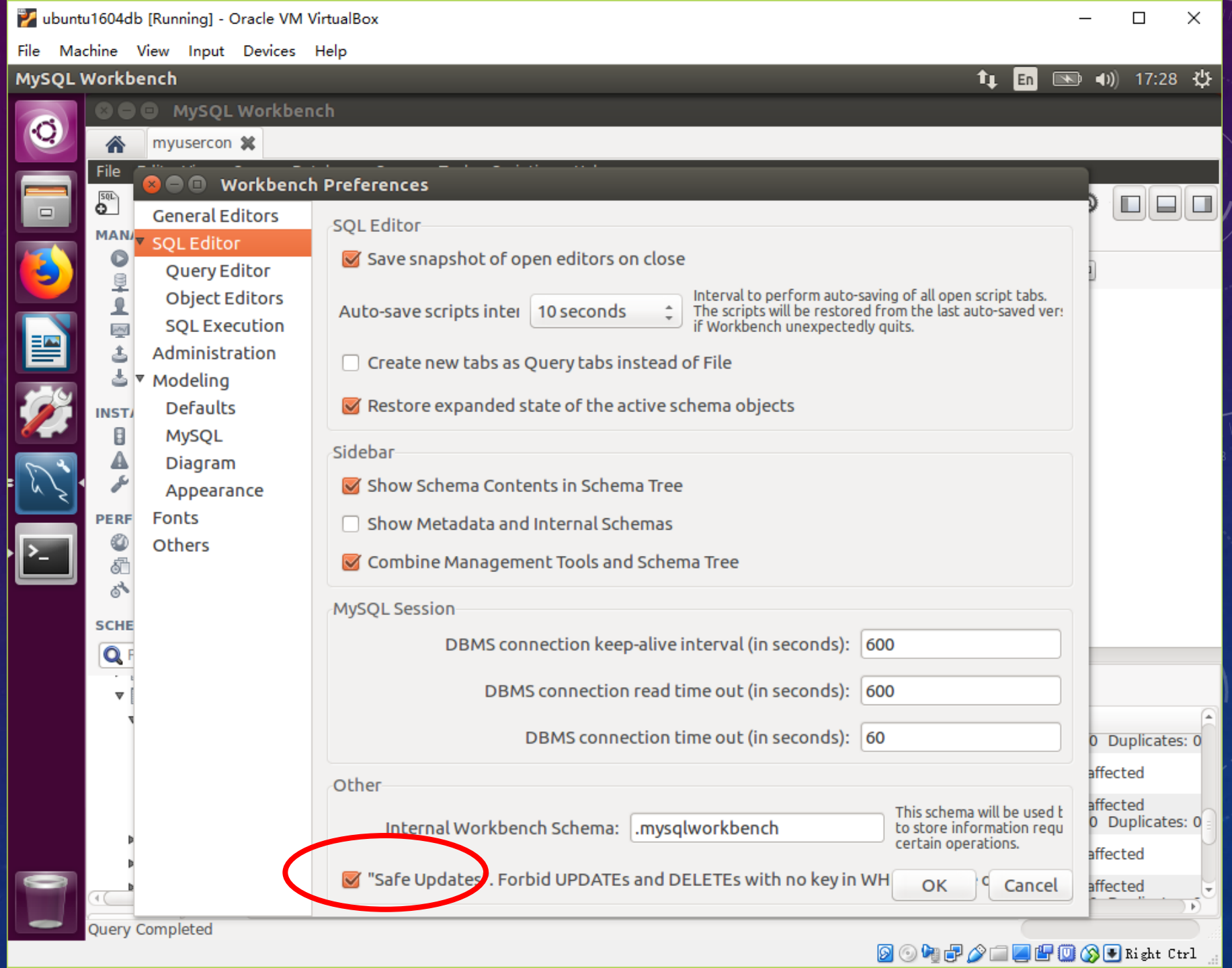
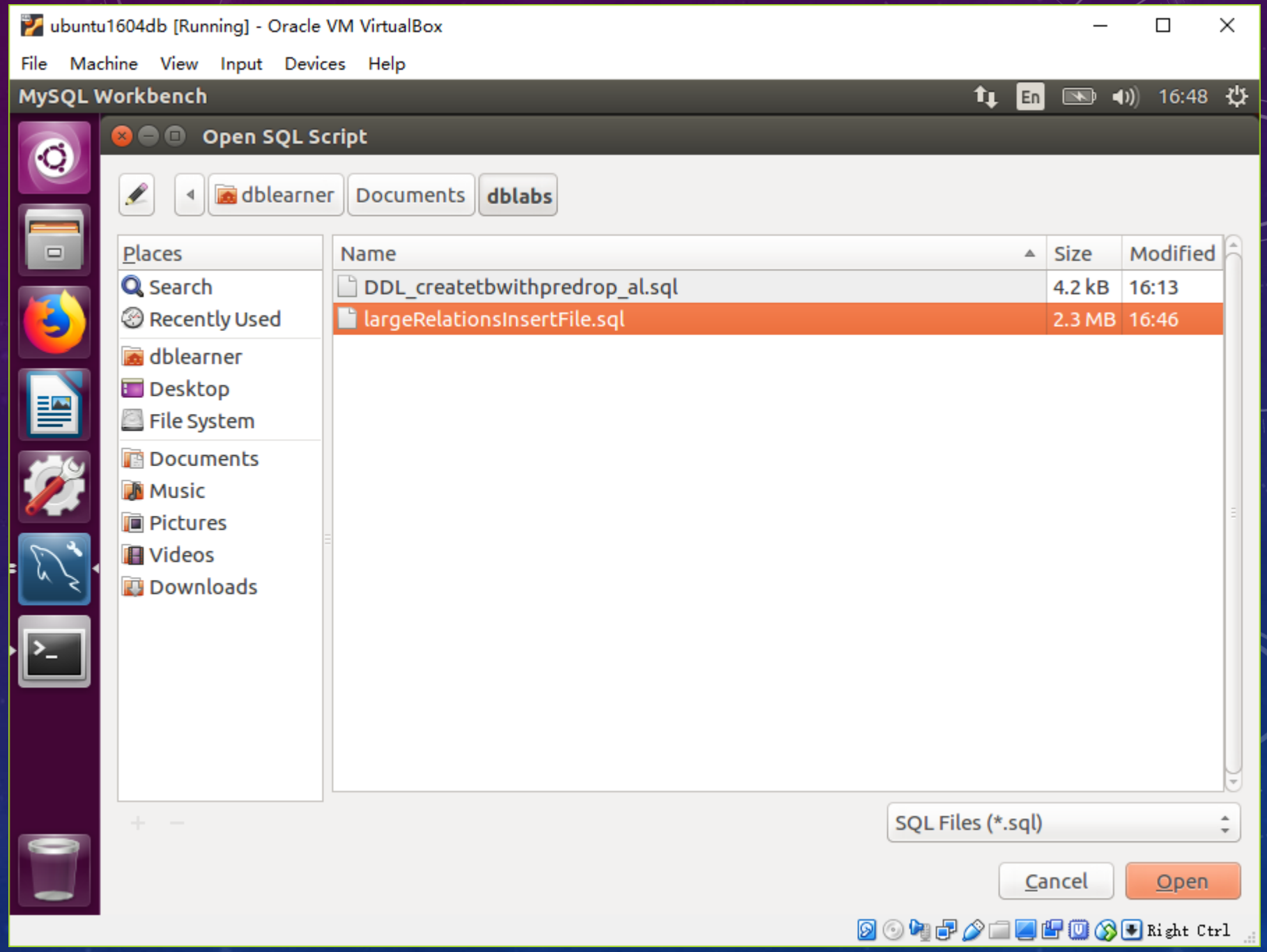


MYSQL: IMPORT DATA OF LABS

- New DB
  - Dbsclab2018
  - Batch import



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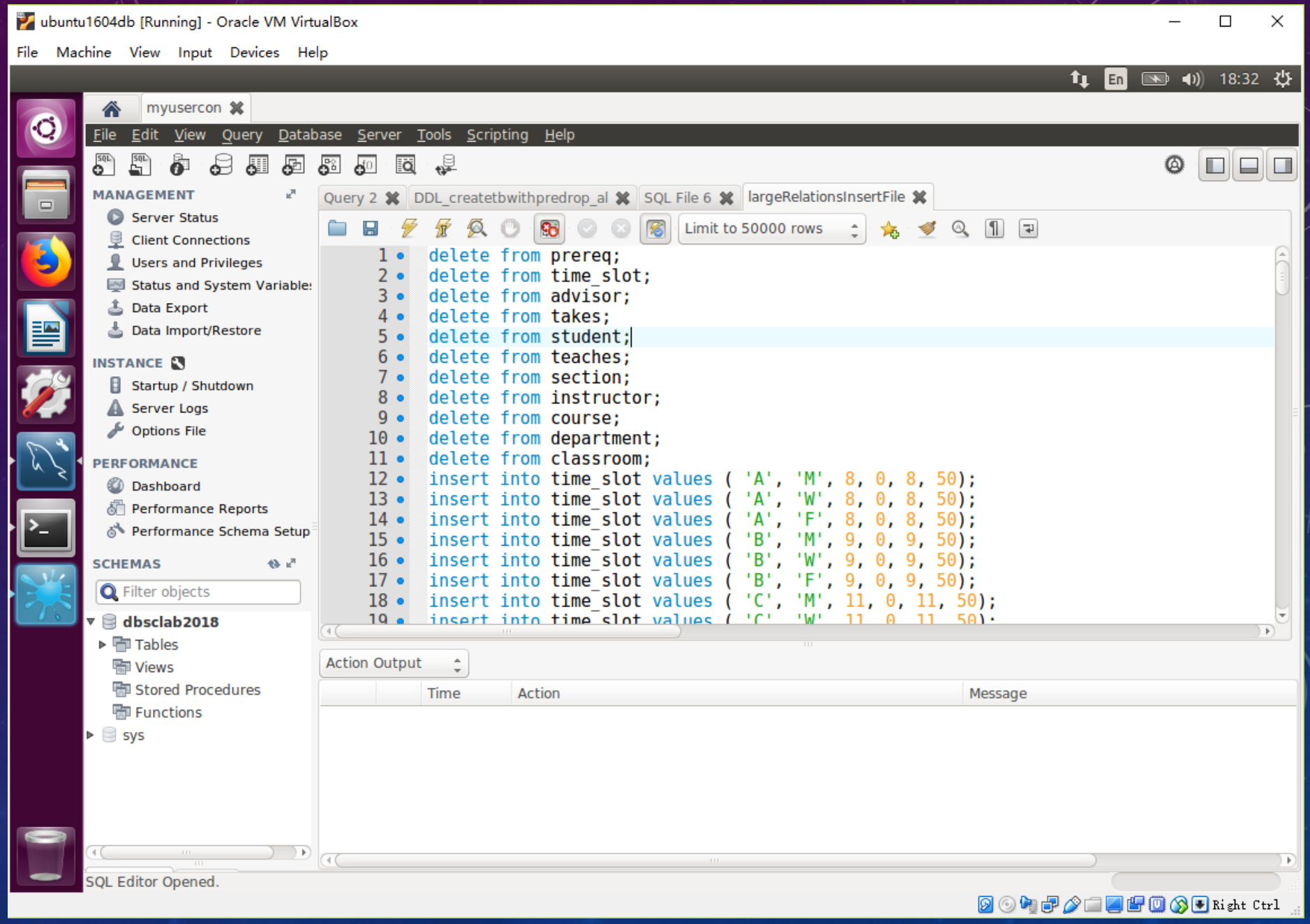
  - Batch import



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MYSQL: IMPORT DATA OF LABS

- New DB
  - Dbsclab2018
  - Batch import

```
$mysql -umyuser -p
show databases;
use dbsclab2018;
source   largeRelationsInsertFile.sql;
commit;
quit;
```

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SIMPLE QUERY STATEMENT

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SIMPLE QUERY STATEMENT

- SELECT * FROM department
- select dept_name, budget from department
- select * from student where dept_name='History'

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QUIZ 4

- 创建一个员工表，其包括员工工号、姓名、年龄、性别、联系方式、入职时间、工资，其中性别的值为“男”或“女”。

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THANKS!

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