

MySQL

Practice – 1

Overview

This is the first of the many practices. Practices are intended to introduce all topics covered in the lesson. Besides this they consolidate your understanding of the different topics.

- *Learn to create a database.*
- *Identify and use existing database.*
- *Create tables with different constraints.*
- *Insert data into the table.*
- *Understand how to use MySQL in batch mode.*

Hands-on

1. Create a database by name “pubs”
2. Select the created database “pubs”
3. The database “pubs” is an abbreviation for Publishers database. This database has several tables. Initially you are asked to create the following tables:

Authors, Publishers, Titles and TitleAuthor

4. The structure of “authors” table is as follows:

au_id	varchar(11)	
au_lname	varchar(40)	NOT NULL,
au_fname	varchar(20)	NOT NULL,
phone	char(12)	NOT NULL
address	varchar(40),	
city	varchar(20),	
state	char(2),	
zip	char(5),	
contract	tinyint	NOT NULL

“au_id” is Author-ID and it is the Primary Key

“phone” column has a default attribute with the value as ‘Unknown’

Create the table “authors” as per the above given details.

5. Confirm that the table “authors” is created. Also check the structure for confirmation.
6. The structure of “publishers” table is as follows:

pub_id	char(4)	
pub_name	varchar(40)	NULL,
city	varchar(20)	NULL,
state	char(2)	NULL,
country	varchar(30)	NULL

“pub_id” is Publishers-ID and it is the Primary Key
“country” column has a default attribute with the value as ‘USA’

Create the table “publishers” as per the above given details.

7. Confirm that the table “publishers” is created. Also look into its structure.
8. The structure of “titles” table is as follows:

title_id	varchar(10)	
title	varchar(80)	NOT NULL,
type	char(12)	NOT NULL
pub_id	char(4)	NULL
price	decimal(10,4)	NULL,
advance	decimal(10,4)	NULL,
royalty	int	NULL,
ytd_sales	int	NULL,
notes	text	NULL,
pubdate	date	NULL

“title_id” column is the Primary Key column.
“type” column has a default attribute value as ‘UNDECIDED’
“pub_id” is a Foreign Key. It references the “pub_id” column of the “publishers” table

Create the table “titles” as per the above given details.

9. Confirm that the table is created. Also explain the structure.
10. The structure of “titleauthor” table is as follows:

au_id	varchar(11)	
title_id	varchar(10)	
au_ord	tinyint	NULL,
royaltyper	int	NULL,

“au_id” is a Foreign Key. It references the “au_id” column of the “authors” table.
“title_id” is also a Foreign Key. It references the “title_id” column of the “titles” Table.

Moreover, this table has a composite primary key as “au_id” and “title_id”

Create the table “titleauthor” for the above given details.

11. Confirm that the table is created. Also explain the structure.

12. Insert the following data in the form of rows in the “publishers” table

'0736'	'New Moon Books'	'Boston'	'MA'	'USA'
'0877'	'Binnet & Hardley'	'Washington'	'DC'	'USA'
'1389'	'Algodata Infosystems'	'Berkeley'	'CA'	'USA'
'9952'	'Scootney Books'	'New York'	'NY'	'USA'
'1622'	'Five Lakes Publishing'	'Chicago'	'IL'	'USA'
'1756'	'Ramona Publishers'	'Dallas'	'TX'	'USA'
'9901'	'GGG&G'	'M□nchen'	NULL	'Germany'
'9999'	'Lucerne Publishing'	'Paris'	NULL	'France'

13. Using the script files (provided to you) insert data in the “authors” and “titles” table

“insert_authors.sql” enables you to insert data in “authors” table

“insert_titles.sql” enables you to insert data in “titles” table

14. Insert the following data in the “titleauthor” table

'409-56-7008'	'BU1032'	1	60
'486-29-1786'	'PS7777'	1	100
'486-29-1786'	'PC9999'	1	100
'712-45-1867'	'MC2222'	1	100
'172-32-1176'	'PS3333'	1	100
'213-46-8915'	'BU1032'	2	40
'238-95-7766'	'PC1035'	1	100
'213-46-8915'	'BU2075'	1	100
'998-72-3567'	'PS2091'	1	50
'899-46-2035'	'PS2091'	2	50
'998-72-3567'	'PS2106'	1	100
'722-51-5454'	'MC3021'	1	75

'899-46-2035'	'MC3021'	2	25
'807-91-6654'	'TC3218'	1	100
'274-80-9391'	'BU7832'	1	100
'427-17-2319'	'PC8888'	1	50
'846-92-7186'	'PC8888'	2	50
'756-30-7391'	'PS1372'	1	75
'724-80-9391'	'PS1372'	2	25
'724-80-9391'	'BU1111'	1	60
'267-41-2394'	'BU1111'	2	40
'672-71-3249'	'TC7777'	1	40
'267-41-2394'	'TC7777'	2	30
'472-27-2349'	'TC7777'	3	30
'648-92-1872'	'TC4203'	1	100