



SQL (part 2)

➤ Recap.

➤ Database

➤ MySQL

➤ Import

➤ Import DB

➤ Insert

➤ Update

➤ Delete

สาขาวิชาวิศวกรรมการสื่อสารและสารสนเทศ

- 1/38 คณะเทคโนโลยีอุตสาหกรรม มหาวิทยาลัยราชภัฏเทพสตรี

1. Recap.

1.1 Database

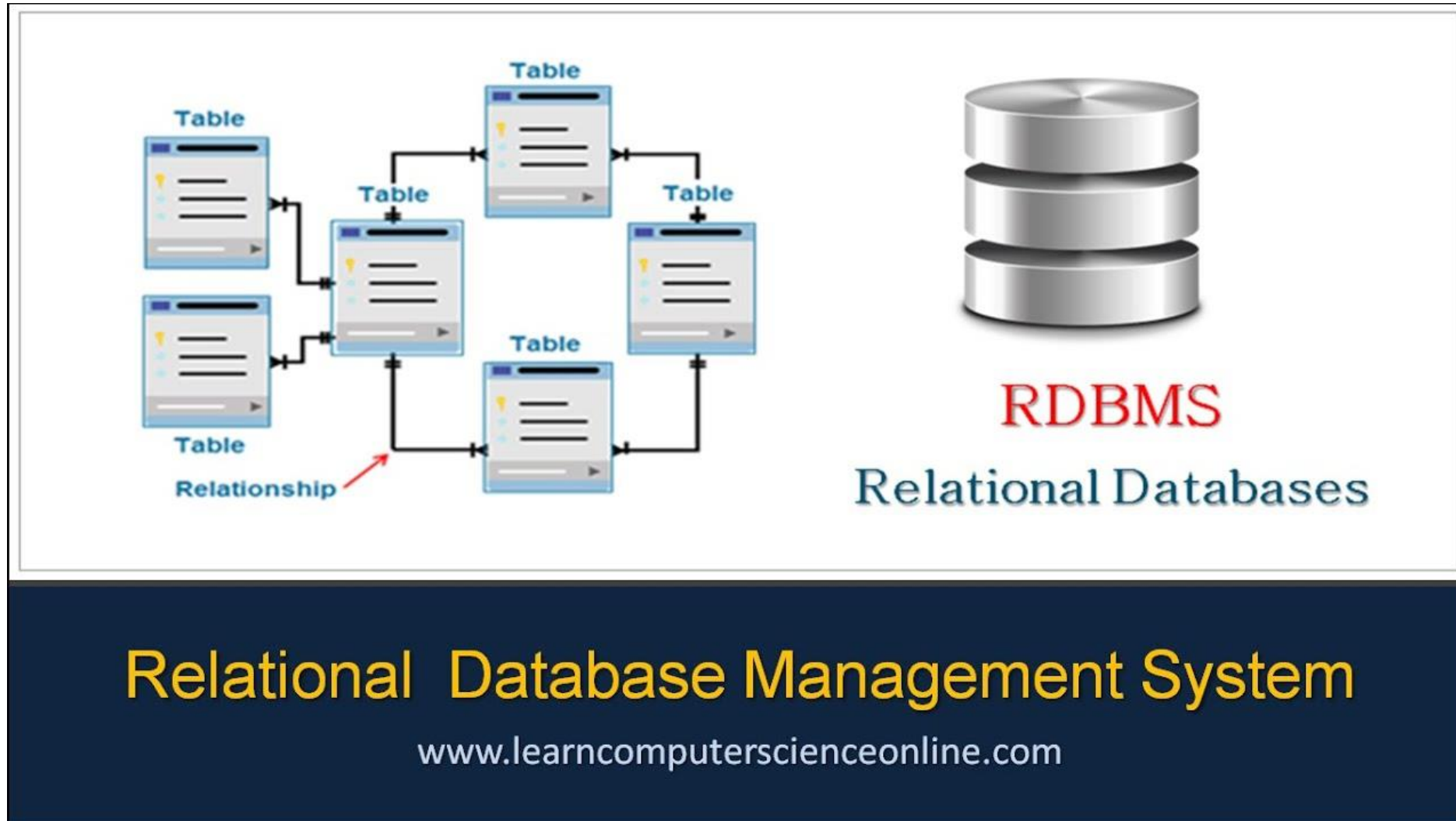
C : Create

R : Read

U : Update

D : Delete

1.1 Database



1.2 MySQL



Welcome to phpMyAdmin

Language

English ▼

Log in ⓘ

Username: data

Password:

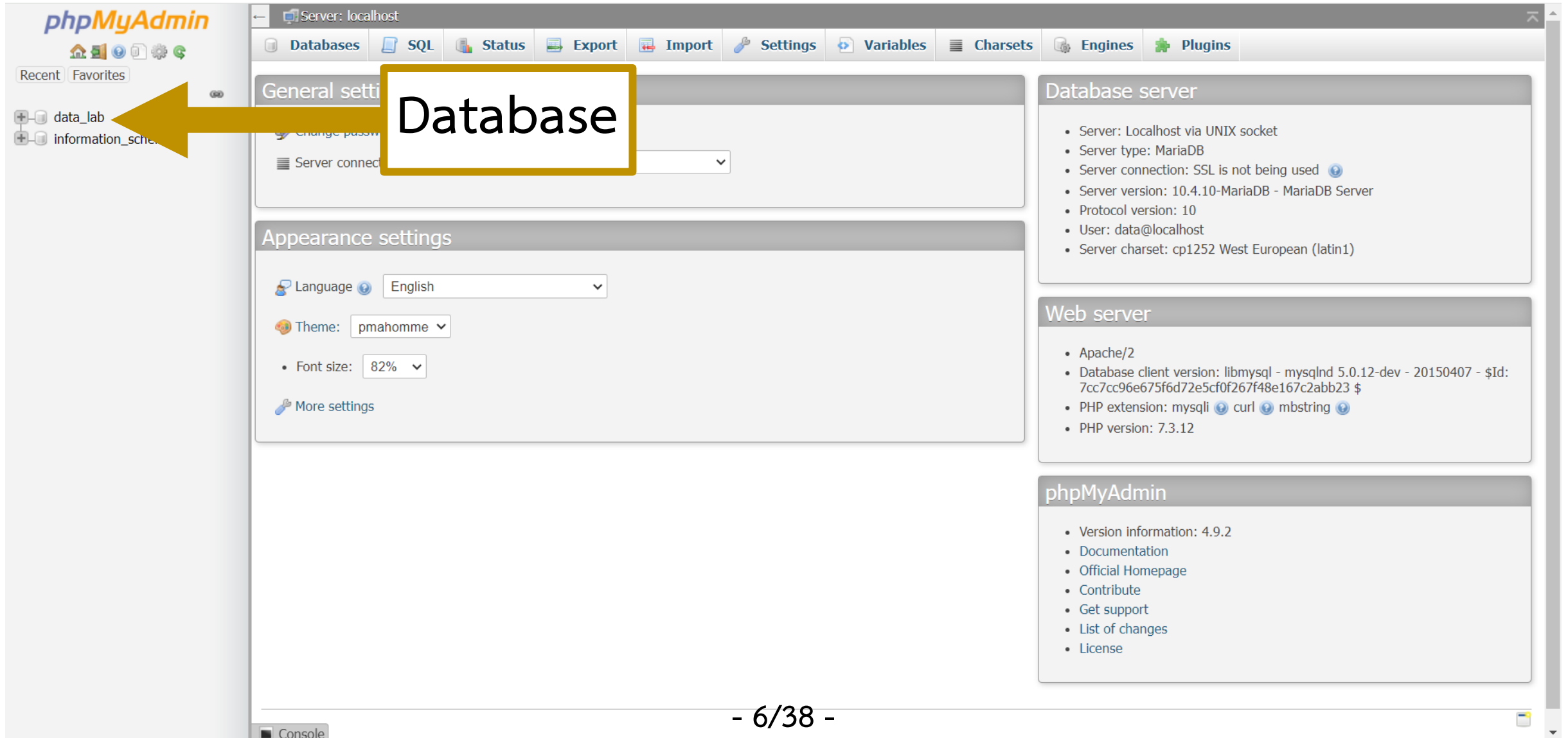
Go

Website: <https://theypsatri.com/phpMyAdmin>

Username: data

Password: Data@2024

1.2 MySQL



The screenshot shows the phpMyAdmin web interface. The top navigation bar includes tabs for Databases, SQL, Status, Export, Import, Settings, Variables,Charsets,Engines, and Plugins. The left sidebar shows a tree view of databases, with 'data_lab' and 'information_schema' listed. A yellow arrow points from a yellow box labeled 'Database' to the 'data_lab' database. The main content area is divided into three sections: 'General settings', 'Appearance settings', and 'Database server'. The 'General settings' section includes a 'Server connected' dropdown. The 'Appearance settings' section includes a 'Language' dropdown set to 'English', a 'Theme' dropdown set to 'pmahomme', and a 'Font size' dropdown set to '82%'. The 'Database server' section lists server details: Server: Localhost via UNIX socket, Server type: MariaDB, Server connection: SSL is not being used, Server version: 10.4.10-MariaDB - MariaDB Server, Protocol version: 10, User: data@localhost, and Server charset: cp1252 West European (latin1). The 'Web server' section lists: Apache/2, Database client version: libmysql - mysqlnd 5.0.12-dev - 20150407 - \$Id: 7cc7cc96e675f6d72e5cf0f267f48e167c2abb23 \$, PHP extension: mysqli, curl, mbstring, and PHP version: 7.3.12. The 'phpMyAdmin' section lists: Version information: 4.9.2, Documentation, Official Homepage, Contribute, Get support, List of changes, and License. A 'Console' tab is visible at the bottom left.

Database

Database server

- Server: Localhost via UNIX socket
- Server type: MariaDB
- Server connection: SSL is not being used
- Server version: 10.4.10-MariaDB - MariaDB Server
- Protocol version: 10
- User: data@localhost
- Server charset: cp1252 West European (latin1)

Web server

- Apache/2
- Database client version: libmysql - mysqlnd 5.0.12-dev - 20150407 - \$Id: 7cc7cc96e675f6d72e5cf0f267f48e167c2abb23 \$
- PHP extension: mysqli, curl, mbstring
- PHP version: 7.3.12

phpMyAdmin

- Version information: 4.9.2
- [Documentation](#)
- [Official Homepage](#)
- [Contribute](#)
- [Get support](#)
- [List of changes](#)
- [License](#)

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1.2 MySQL

The screenshot shows the phpMyAdmin interface for a MySQL database named 'data_lab'. The left sidebar displays a tree view of the database structure, including tables like 'customers', 'employees', 'offices', 'orderdetails', 'orders', 'payments', 'productlines', and 'products'. A yellow arrow points from the word 'Table' (highlighted in a yellow box) to the 'customers' table in this list.

The main panel shows a table listing for the 'data_lab' database. The table has columns: Table, Action, Rows, Type, Collation, Size, and Overhead. The tables listed are:

Table	Action	Rows	Type	Collation	Size	Overhead
customers	Search, Insert, Empty, Drop	122	MyISAM	utf8_unicode_ci	17.7 KiB	-
employees	Search, Insert, Empty, Drop	23	MyISAM	utf8_unicode_ci	3.7 KiB	-
offices	Search, Insert, Empty, Drop	7	MyISAM	utf8_unicode_ci	2.5 KiB	-
orderdetails	Search, Insert, Empty, Drop	2,996	MyISAM	utf8_unicode_ci	132.6 KiB	-
orders	Browse, Structure, Search, Insert, Empty, Drop	326	MyISAM	utf8_unicode_ci	24.3 KiB	-
payments	Browse, Structure, Search, Insert, Empty, Drop	273	MyISAM	utf8_unicode_ci	15.5 KiB	-
productlines	Browse, Structure, Search, Insert, Empty, Drop	7	MyISAM	utf8_unicode_ci	5.3 KiB	-
products	Browse, Structure, Search, Insert, Empty, Drop	110	MyISAM	utf8_unicode_ci	33.2 KiB	-
8 tables	Sum	3,864	InnoDB	latin1_swedish_ci	235.0 KiB	0 B

Below the table list, there are options to 'Check all' and 'With selected:'. At the bottom, there is a 'Create table' section with fields for 'Name:' and 'Number of columns: 4', and a 'Go' button.

1.2 MySQL

Database: data_lab
Table: employees

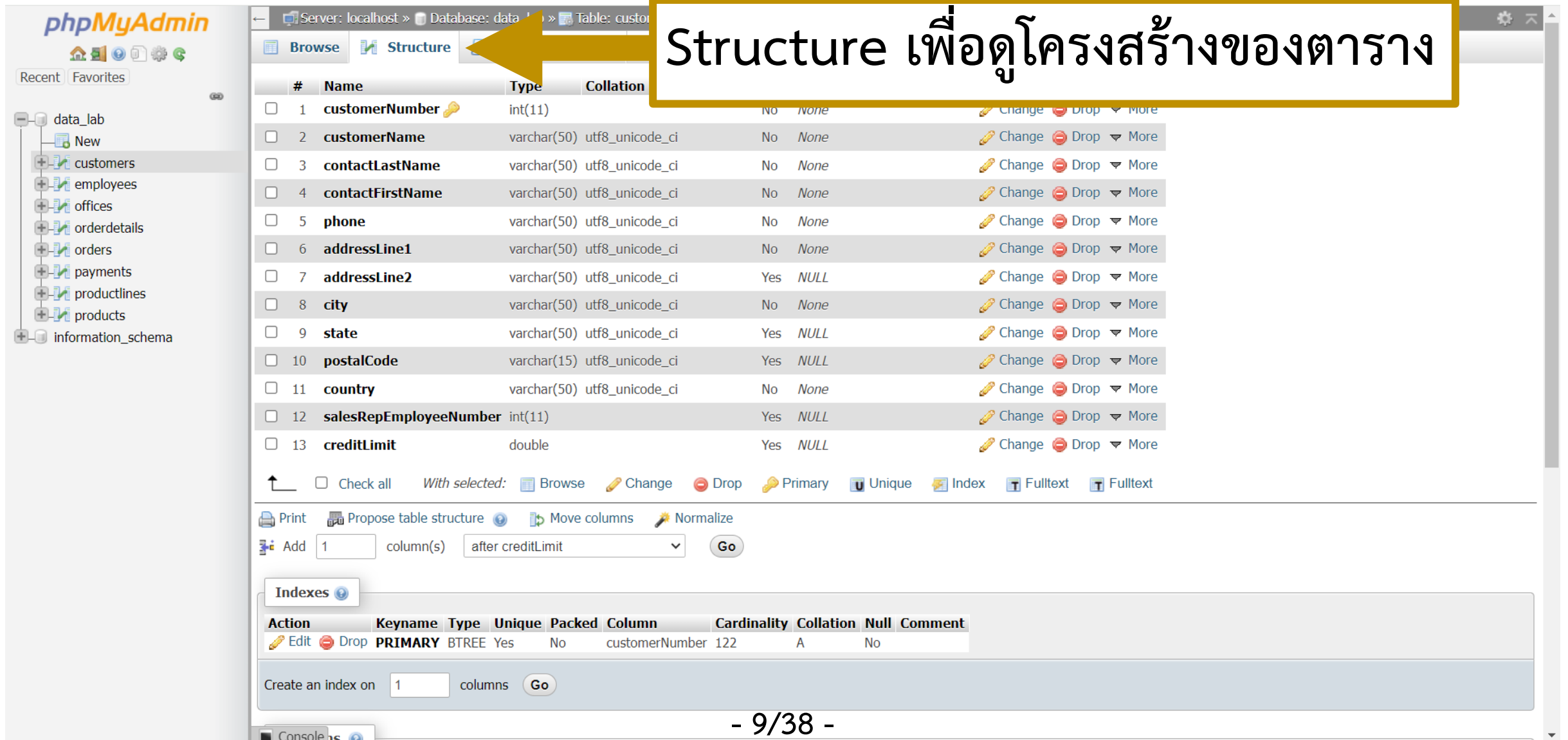
Browse เพื่อดูข้อมูลในตาราง

	employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
<input type="checkbox"/>	1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com	1	NULL	President
<input type="checkbox"/>		Mary		x4611	mpatterso@classicmodelcars.com	1	1002	VP Sales
<input type="checkbox"/>		Jeff		x9273	jfirrelli@classicmodelcars.com	1	1002	VP Marketing
<input type="checkbox"/>		William		x4871	wpatterson@classicmodelcars.com	6	1056	Sales Manager (APAC)
<input type="checkbox"/>		Gerard		x5408	gbondur@classicmodelcars.com	4	1056	Sales Manager (EMEA)
<input type="checkbox"/>		Anthony		x5428	abow@classicmodelcars.com	1	1056	Sales Manager (NA)
<input type="checkbox"/>	1143	Bow	Anthony	x5428	abow@classicmodelcars.com	1	1056	Sales Manager (NA)
<input type="checkbox"/>	1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
<input type="checkbox"/>	1166	Thompson	Leslie	x4065	lthompson@classicmodelcars.com	1	1143	Sales Rep
<input type="checkbox"/>	1188	Firrelli	Julie	x2173	jfirrelli@classicmodelcars.com	2	1143	Sales Rep
<input type="checkbox"/>	1216	Patterson	Steve	x4334	spatterson@classicmodelcars.com	2	1143	Sales Rep
<input type="checkbox"/>	1286	Tseng	Foon Yue	x2248	ftseng@classicmodelcars.com	3	1143	Sales Rep
<input type="checkbox"/>	1323	Vanauf	George	x4102	gvanauf@classicmodelcars.com	3	1143	Sales Rep
<input type="checkbox"/>	1337	Bondur	Loui	x6493	lbondur@classicmodelcars.com	4	1102	Sales Rep
<input type="checkbox"/>	1370	Hernandez	Gerard	x2028	ghernande@classicmodelcars.com	4	1102	Sales Rep
<input type="checkbox"/>	1401	Castillo	Pamela	x2759	pcastillo@classicmodelcars.com	4	1102	Sales Rep
<input type="checkbox"/>	1501	Bott	Larry	x2211	lbott@classicmodelcars.com	7	1102	Sales Rep
<input type="checkbox"/>	1504	Jones	Barry	x102	bjones@classicmodelcars.com	7	1102	Sales Rep

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1.2 MySQL

Structure เพื่อดูโครงสร้างของตาราง



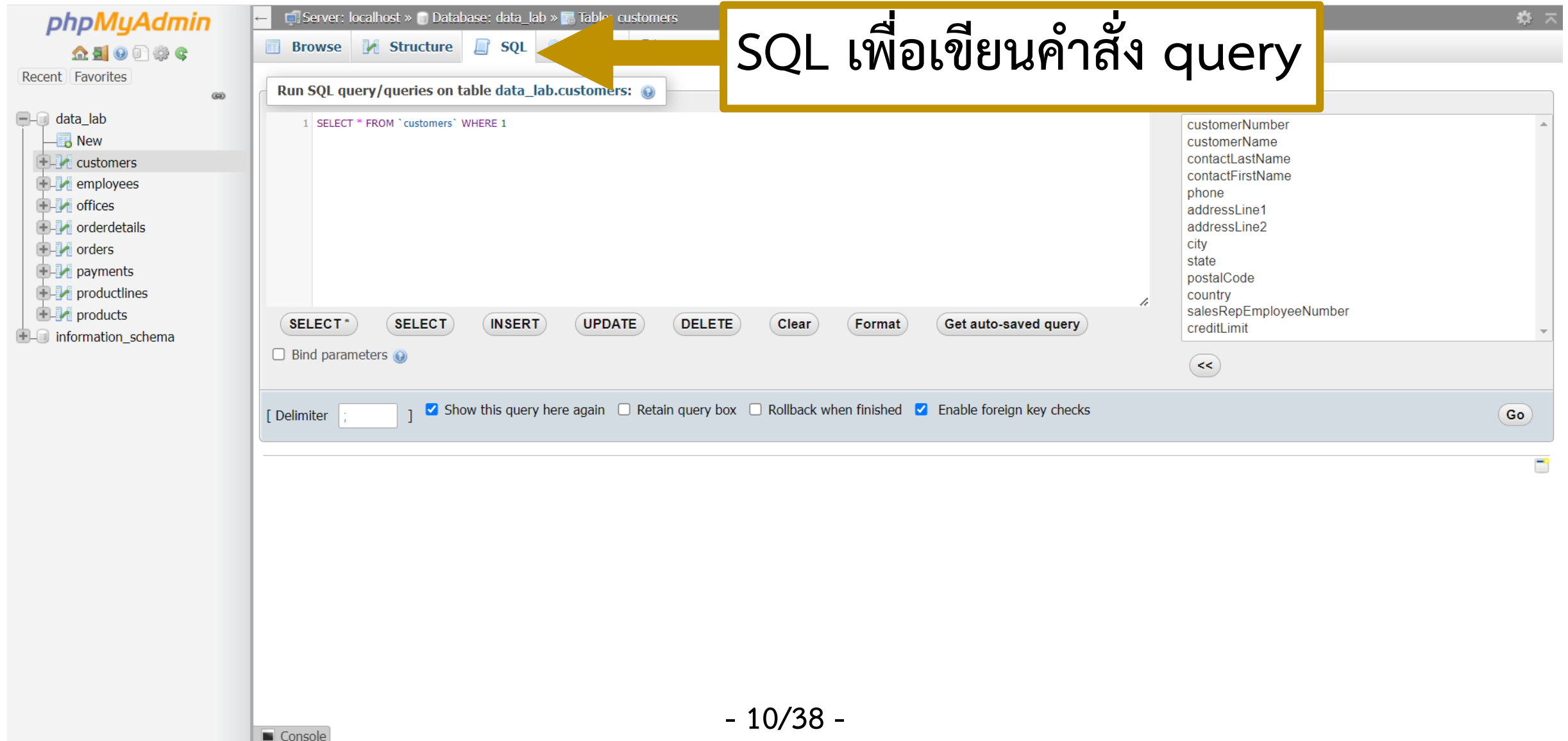
The screenshot shows the phpMyAdmin interface with the 'Structure' tab selected for the 'customers' table. A yellow arrow points from the Thai text 'Structure เพื่อดูโครงสร้างของตาราง' to the 'Structure' tab. The table structure is as follows:

#	Name	Type	Collation	Index	Nullable	Actions
1	customerNumber	int(11)		PRIMARY	No	Change Drop More
2	customerName	varchar(50)	utf8_unicode_ci		No	Change Drop More
3	contactLastName	varchar(50)	utf8_unicode_ci		No	Change Drop More
4	contactFirstName	varchar(50)	utf8_unicode_ci		No	Change Drop More
5	phone	varchar(50)	utf8_unicode_ci		No	Change Drop More
6	addressLine1	varchar(50)	utf8_unicode_ci		No	Change Drop More
7	addressLine2	varchar(50)	utf8_unicode_ci		Yes	Change Drop More
8	city	varchar(50)	utf8_unicode_ci		No	Change Drop More
9	state	varchar(50)	utf8_unicode_ci		Yes	Change Drop More
10	postalCode	varchar(15)	utf8_unicode_ci		Yes	Change Drop More
11	country	varchar(50)	utf8_unicode_ci		No	Change Drop More
12	salesRepEmployeeNumber	int(11)			Yes	Change Drop More
13	creditLimit	double			Yes	Change Drop More

Below the table structure, there are options to 'Check all', 'With selected:', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', 'Fulltext', and 'Fulltext'. There are also buttons for 'Print', 'Propose table structure', 'Move columns', and 'Normalize'. At the bottom, there is a section for 'Indexes' showing the primary index on 'customerNumber' and a form to 'Create an index on' 1 columns.

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1.2 MySQL



The screenshot shows the phpMyAdmin web interface. On the left is a sidebar with a tree view of databases and tables. The main area has tabs for 'Browse', 'Structure', and 'SQL'. The 'SQL' tab is active, and a yellow arrow points to it from a text box. The text box contains the Thai text 'SQL เพื่อเขียนคำสั่ง query' (SQL for writing queries). Below the tabs, there is a text area for writing SQL queries. The query entered is '1 SELECT * FROM `customers` WHERE 1'. Below the query area are buttons for 'SELECT *', 'SELECT', 'INSERT', 'UPDATE', 'DELETE', 'Clear', 'Format', and 'Get auto-saved query'. To the right of the query area is a list of column names for the 'customers' table: customerNumber, customerName, contactLastName, contactFirstName, phone, addressLine1, addressLine2, city, state, postalCode, country, salesRepEmployeeNumber, and creditLimit. At the bottom of the interface, there are checkboxes for 'Bind parameters', 'Show this query here again', 'Retain query box', 'Rollback when finished', and 'Enable foreign key checks', along with a 'Go' button.

SQL เพื่อเขียนคำสั่ง query

Run SQL query/queries on table data_lab.customers:

```
1 SELECT * FROM `customers` WHERE 1
```

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

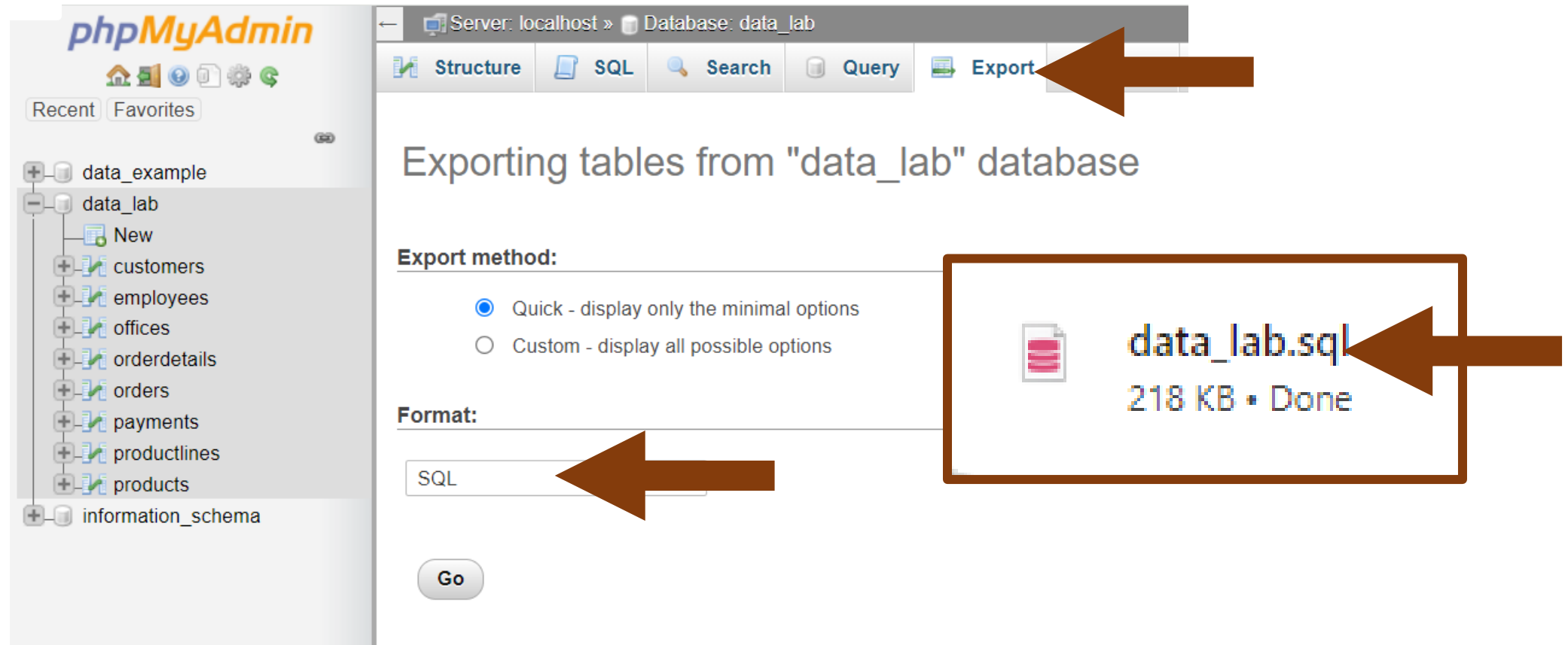
[Delimiter ;] ☒ Show this query here again ☐ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Console

2 . Import

2. Import

Export



The screenshot shows the phpMyAdmin interface for exporting data from the 'data_lab' database. The left sidebar displays a tree view of databases and tables, with 'data_lab' expanded to show tables like 'customers', 'employees', 'orders', etc. The main panel shows the 'Export' tab selected, with a title 'Exporting tables from "data_lab" database'. Below this, the 'Export method' section has two radio buttons: 'Quick - display only the minimal options' (selected) and 'Custom - display all possible options'. The 'Format' section has a dropdown menu set to 'SQL'. A 'Go' button is at the bottom. On the right, a box highlights the export result: 'data_lab.sql' (218 KB) with a status of 'Done'. A large brown arrow points to the 'Export' button in the top navigation bar, and another large brown arrow points to the 'data_lab.sql' file name in the result box.

phpMyAdmin

Server: localhost » Database: data_lab

Structure SQL Search Query Export

Exporting tables from "data_lab" database

Export method:

- ☒ Quick - display only the minimal options
- ☐ Custom - display all possible options

Format:

SQL

Go

data_lab.sql
218 KB • Done

2 . Import

Back-End (DirectAdmin)

DirectAdmin Login Page

Please enter your Username and Password

Username:	<input type="text" value="s44010305"/>
Password:	<input type="password" value="....."/>

Website: <http://theypsatri.com:2222>

Username: s + รหัสนักศึกษา

Password: Ss + รหัสนักศึกษา

2. Import

DirectAdmin

Home Webmail Password Help Files Logout

Your Account

Domain Setup
Change Password
Login History
DNS Management
Support Center
Installed Perl Modules
Create/Restore Backups

Site Summary Statistics / Logs
FTP Management
Subdomain Management
MySQL Management
Password Protected Directories
File Manager

E-Mail Management

E-Mail Accounts SPAM Filters

Current Domain
44010305.theypsatri.com

Message System

Your Account

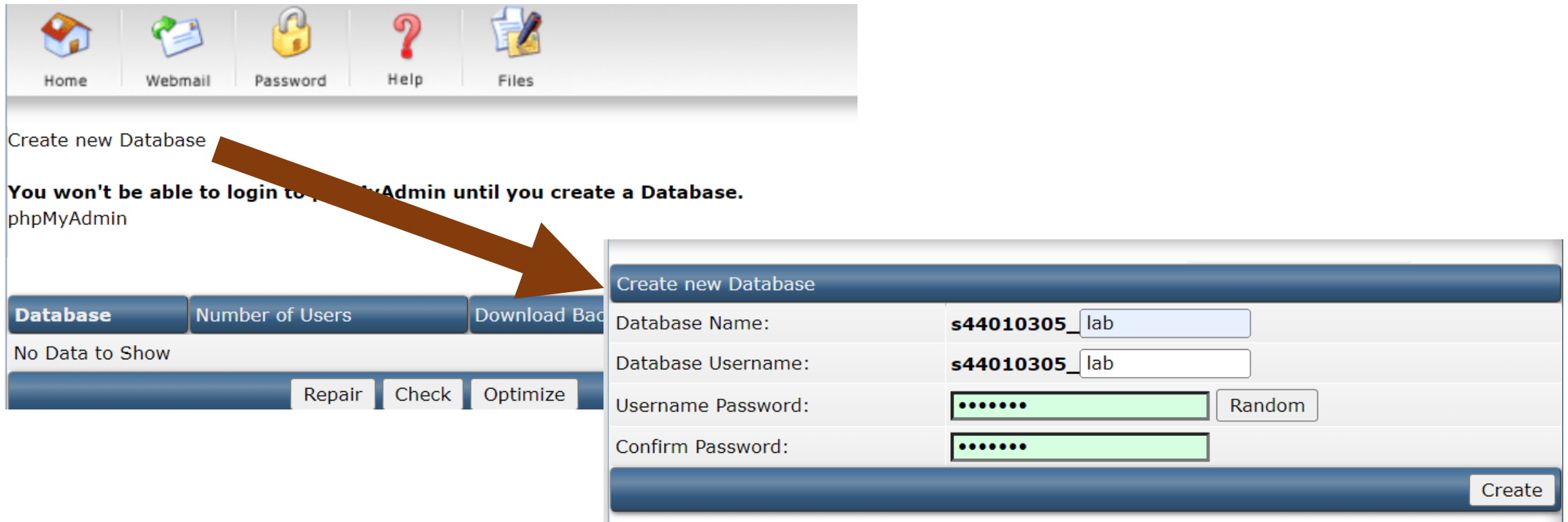
Bandwidth

Disk Space

	Used	Max
Disk Space (MB)	0.0	9000
Bandwidth (GB)	0.0000	8.7890
E-Mails	1	10
Ftp Accounts	1	1
Databases	0	5
Inodes	0	unlimited

2. Import

MySQL Management



Home Webmail Password Help Files

Create new Database

You won't be able to login to phpMyAdmin until you create a Database.

Database Number of Users Download Backup

No Data to Show

Repair Check Optimize

Create new Database

Database Name: s44010305_lab

Database Username: s44010305_lab

Username Password: Random

Confirm Password:

Create

2. Import

phpMyAdmin



Welcome to phpMyAdmin

Language

English

Log in ?

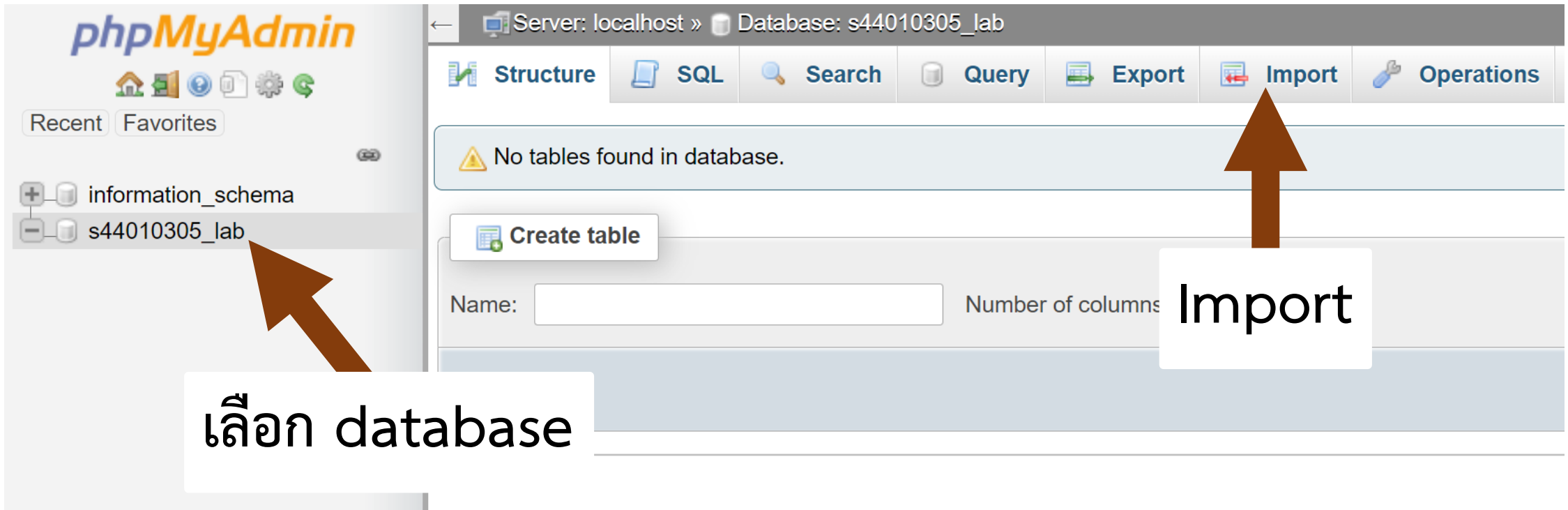
Username: s44010305

Password:

Go

2. Import

Import Database



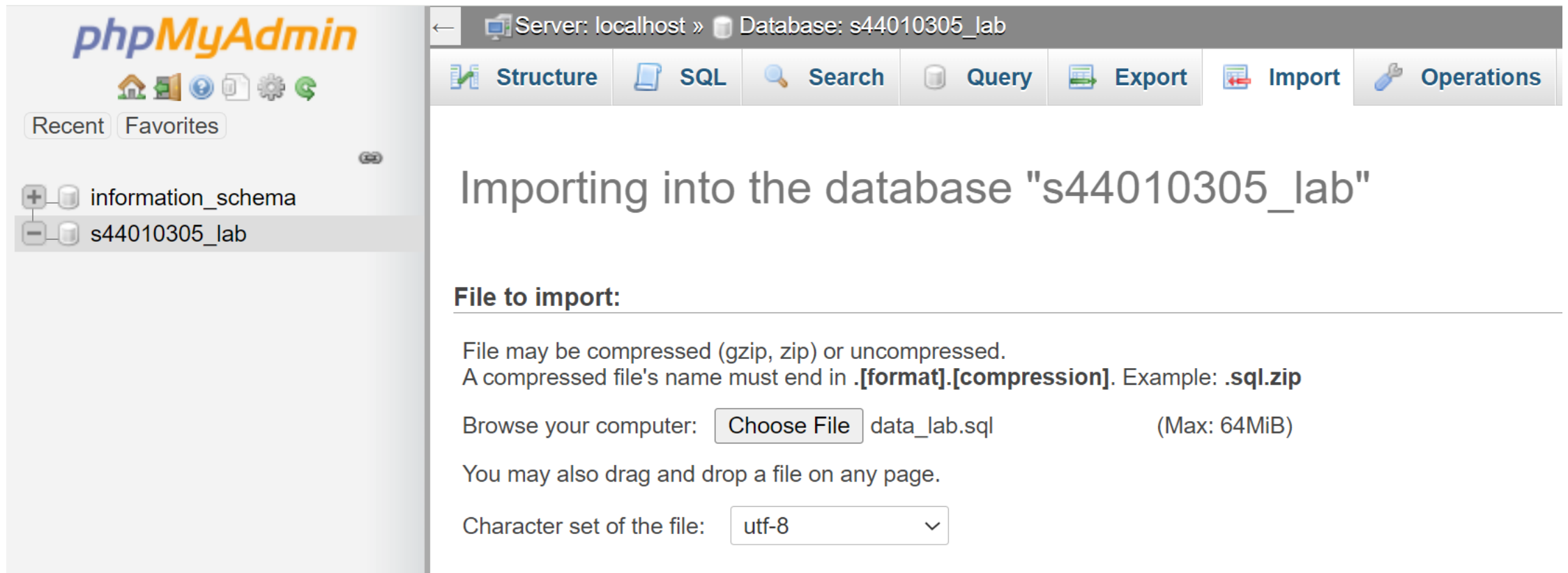
The screenshot shows the phpMyAdmin interface. On the left sidebar, the database 's44010305_lab' is selected under the 'information_schema' group. A brown arrow points from a white box containing the Thai text 'เลือก database' (select database) to this database name. The main panel shows the 'Database: s44010305_lab' header with tabs for Structure, SQL, Search, Query, Export, Import, and Operations. The 'Import' tab is highlighted with a brown arrow pointing from a white box containing the word 'Import'. Below the tabs, a message states 'No tables found in database.' and a 'Create table' button is visible. The 'Name:' and 'Number of columns' fields are also present.

เลือก database

Import

2. Import

Import Database



The screenshot shows the phpMyAdmin web interface. On the left sidebar, the 'information_schema' and 's44010305_lab' databases are listed. The main panel is titled 'Importing into the database "s44010305_lab"'. The 'Import' tab is selected in the top navigation bar. Below the title, the 'File to import:' section contains instructions: 'File may be compressed (gzip, zip) or uncompressed. A compressed file's name must end in **[format].[compression]**. Example: **.sql.zip**'. There is a 'Browse your computer:' label, a 'Choose File' button, and the text 'data_lab.sql (Max: 64MiB)'. Below this, it says 'You may also drag and drop a file on any page.' At the bottom, the 'Character set of the file:' is set to 'utf-8' via a dropdown menu.

2. Import

Import Database

The screenshot displays the phpMyAdmin web interface. On the left sidebar, the 'information_schema' and 's44010305_lab' databases are listed. The 's44010305_lab' database is expanded, showing a 'New' button and several tables: 'customers', 'employees', 'offices', 'orderdetails', 'orders', 'payments', 'productlines', and 'products'. The main panel shows the 'Import' tab selected. A green message box at the top of the main panel states: 'Import has been successfully finished, 38 queries executed. (data_lab.sql)'. Below this, three query results are shown, each with a green checkmark and the message: 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)'. The first query result includes a SQL dump header: '-- phpMyAdmin SQL Dump -- version 4.9.2 -- https://www.phpmyadmin.net/ -- -- Host: localhost -- Generation Time: Oct 14, 2024 at 11:18 AM -- Server version: 10.4.10-MariaDB -- PHP Version: 7.3.12 SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO"'. The second query result shows 'SET AUTOCOMMIT = 0'. The third query result shows 'START TRANSACTION'. At the bottom of the main panel, the page number '- 19/38 -' is displayed. The interface also includes a top navigation bar with tabs for 'Structure', 'SQL', 'Search', 'Query', 'Export', 'Import', 'Operations', and 'More'.

Server: localhost » Database: s44010305_lab

Structure SQL Search Query Export Import Operations More

Import has been successfully finished, 38 queries executed. (data_lab.sql)

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
-- phpMyAdmin SQL Dump -- version 4.9.2 -- https://www.phpmyadmin.net/ -- -- Host: localhost -- Generation Time: Oct 14, 2024 at 11:18 AM -- Server version: 10.4.10-MariaDB -- PHP Version: 7.3.12 SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO"
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0001 seconds.)

```
SET AUTOCOMMIT = 0
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
START TRANSACTION
```

- 19/38 - [Edit inline] [Edit] [Create PHP code]

3. Insert

3. Insert

ก่อน Insert ตาราง employees จะมี 23 rows

The screenshot shows the phpMyAdmin interface for a database named 's44010305_lab'. The 'employees' table is selected, and the 'Structure' tab is active. A green message bar at the top indicates 'Showing rows 0 - 22 (23 total, Query took 0.0025 seconds.)'. Below this, the SQL query 'SELECT * FROM `employees`' is displayed. The table structure is shown with columns: employeeNumber, lastName, firstName, extension, and email. The first four rows of data are visible, each with edit, copy, and delete options.

	employeeNumber	lastName	firstName	extension	email
<input type="checkbox"/> Edit Copy Delete	1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1056	Patterson	Mary	x4611	mpatterso@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1076	Firrelli	Jeff	x9273	jfirrelli@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1088	Patterson	William	x4871	wpatterson@classicmodelcars.com

3. Insert









INSERT INTO

employees

(employeeNumber, lastName, firstName)

VALUES

(44010305, 'Dangkham', 'Piyapong')

<input type="checkbox"/>	 Edit	 Copy	 Delete	1625	Kato	Yoshimi	x102	ykato@classicmodelcars.com
<input type="checkbox"/>	 Edit	 Copy	 Delete	1702	Gerard	Martin	x2312	mgerard@classicmodelcars.com
<input type="checkbox"/>	 Edit	 Copy	 Delete	44010305	Dangkham	Piyapong		



☐ Check all

With selected:



Edit



Copy



Delete



Export

3. Insert

หลัง Insert ตาราง employees จะมี 24 rows

The screenshot shows the phpMyAdmin interface for a database named 's44010305_lab'. The 'employees' table is selected, and the 'Structure' tab is active. A green message bar indicates 'Showing rows 0 - 23 (24 total, Query took 0.0005 seconds.)'. The SQL query 'SELECT * FROM `employees`' is shown. Below the query, there are options for 'Show all', 'Number of rows' (set to 25), 'Filter rows' (Search this table), and 'Sort by key' (None). The table data is displayed with columns: employeeNumber, lastName, firstName, extension, and email. The first four rows are visible, and a pagination bar at the bottom shows '- 24/38 -'.

	employeeNumber	lastName	firstName	extension	email
<input type="checkbox"/> Edit Copy Delete	1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1056	Patterson	Mary	x4611	mpatterso@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1076	Firrelli	Jeff	x9273	jfirrelli@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1088	Patterson	William	x4871	wpatterson@classicmodelcars.com

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3. Insert

ให้เพิ่ม employees อีก 1 คน มีรายละเอียดดังนี้

employeeNumber	555
firstName	Kylie
lastName	Minogue
officeCode	5
email	kylie@kylie.com










3 . Insert

ให้เพิ่มข้อมูล payments มีรายละเอียดดังนี้

customerNumber	495
checkNumber	GG155234
paymentDate	2024-05-14
amount	57890.75

4 . Update

4 . Update

<input type="checkbox"/>	 Edit	 Copy	 Delete	1625	Kato	Yoshimi	x102	ykato@classicmodelcars.com
<input type="checkbox"/>	 Edit	 Copy	 Delete	1702	Gerard	Martin	x2312	mgerard@classicmodelcars.com
<input type="checkbox"/>	 Edit	 Copy	 Delete	44010305	Dangkham	Piyapong		










employeeNumber 44010305

lastName Dangkham

firstName Piyapong --> Piya

4 . Update

UPDATE	employees
SET	firstName = 'Piya'
WHERE	employeeNumber = 44010305

<input type="checkbox"/>	 Edit	 Copy	 Delete	1625	Kato	Yoshimi	x102	ykato@classicmodelcars.com
<input type="checkbox"/>	 Edit	 Copy	 Delete	1702	Gerard	Martin	x2312	mgerard@classicmodelcars.com
<input type="checkbox"/>	 Edit	 Copy	 Delete	44010305	Dangkham	Piya		

4 . Update

ให้แก้ไขข้อมูล employees รหัส 555 ให้มีรายละเอียดดังนี้

firstName	Beyonce
-----------	---------

lastName	Knows
----------	-------

4 . Update

ให้แก้ไขข้อมูล employees ที่มี jobTitle เป็น Sales Rep ให้มี officeCode เป็น 7

5.Delete

5.Delete

ก่อน Insert ตาราง employees จะมี 24 rows

The screenshot shows the phpMyAdmin interface for a database named 's44010305_lab'. The 'employees' table is selected, and the 'Structure' tab is active. A green message bar indicates 'Showing rows 0 - 23 (24 total, Query took 0.0001 seconds.)'. Below this, a SQL query is shown: `SELECT * FROM `employees``. The table's structure is displayed with columns: `employeeNumber`, `lastName`, `firstName`, `extension`, and `email`. The table contains 24 rows, with the first four rows visible in the screenshot. Each row has a checkbox for selection and icons for Edit, Copy, and Delete.

	employeeNumber	lastName	firstName	extension	email
<input type="checkbox"/>	1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com
<input type="checkbox"/>	1056	Patterson	Mary	x4611	mpatterso@classicmodelcars.com
<input type="checkbox"/>	1076	Firrelli	Jeff	x9273	jfirrelli@classicmodelcars.com
<input type="checkbox"/>	1088	Patterson	William	x4871	wpatterson@classicmodelcars.com

5.Delete

DELETE FROM
WHERE

employees
employeeNumber = 44010305

The screenshot shows the phpMyAdmin interface. On the left is a sidebar with a tree view of databases and tables. The 's44010305_lab' database is selected, and the 'employees' table is highlighted. The main panel shows the 'Structure' tab for the 'employees' table. A green banner indicates 'Showing rows 0 - 22 (23 total, Query took 0.0003 seconds.)'. Below this is a SQL query editor with the text 'SELECT * FROM `employees`'. To the right of the editor are links for 'Profiling', 'Edit inline', 'Edit', 'Explain SQL', 'Create PHP code', and 'Refresh'. Below the editor are controls for 'Show all', 'Number of rows' (set to 25), 'Filter rows' (a search box), and 'Sort by key' (set to None). A '+ Options' section is visible. At the bottom, a table of data is shown with columns: 'employeeNumber', 'lastName', 'firstName', 'extension', and 'email'. The table contains three rows of data, with the last row partially visible and truncated.

	employeeNumber	lastName	firstName	extension	email
<input type="checkbox"/> Edit Copy Delete	1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1056	Patterson	Mary	x4611	mpatterso@classicmodelcars.com
<input type="checkbox"/> Edit Copy Delete	1076	Firrelli	Jeff	x9273	jfirrelli@classicmodelcars.com

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5.Delete

ให้ลบข้อมูล employees ที่อยู่ office หมายเลข 3

5.Delete

ให้ลบข้อมูล employees ที่มีนามสกุลเดียวกับพนักงานรหัส 1056

