

# LABSHEET 20

**Module**Website  
Development**Module Code**

IT3040FP

**Duration**

5 hours

**Title:**

Create Database

**Objective(s):**

At the end of the lesson, students will be able to create a database using a RDBMS.

**Tools, Equipment and Materials:**

- 1 Development computer
- 2 Code editor

**Instructions:****Part (A): Create Database**

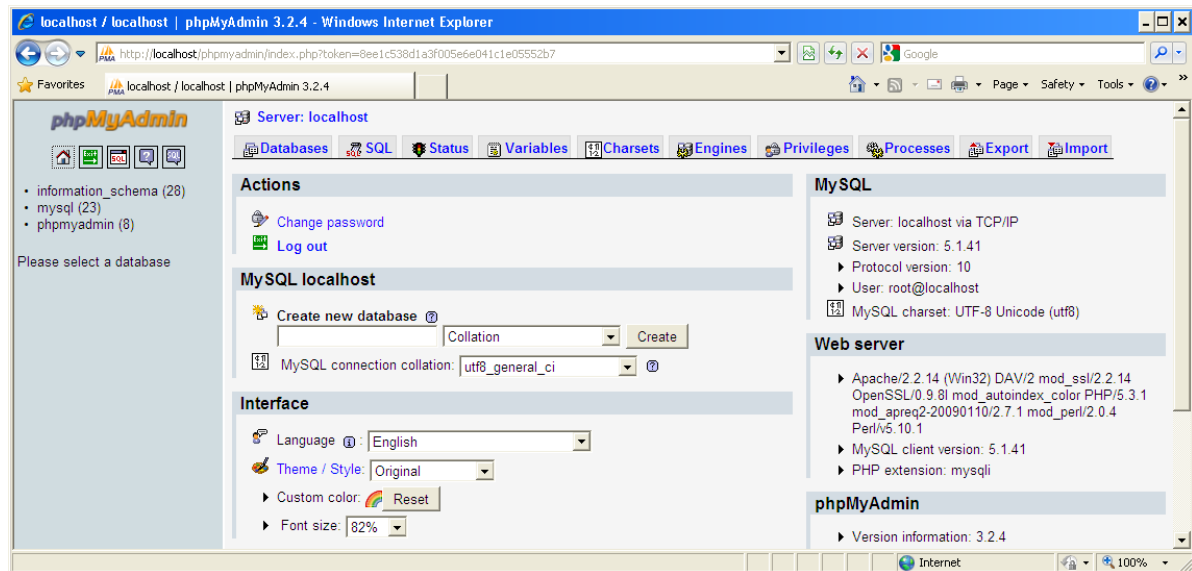
1. Your computer would have been installed with MySQL and the phpmyadmin application as the administrative tool for MySQL. Refer to <https://www.apachefriends.org/index.html> for the installation of XAMPP package:
2. Click the Admin button for MySQL. This loads the login page for phpMyAdmin as shown below. Type **root** as the username, type the root password, if any, and click Go.



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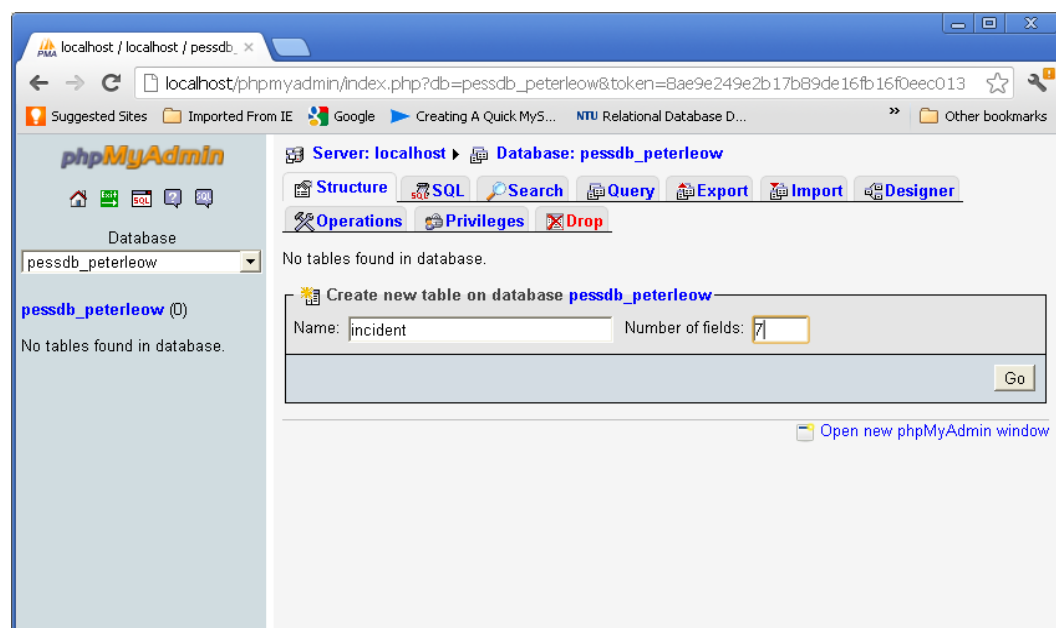
3. After successfully logging in , you should see a similar screen as shown below:



4. Create a database called **yourname\_pessdb**.

## Part (B): Create Tables

1. In the **yourname\_pessdb** database, create the a table called **incident** with 8 fields as shown:



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Server: localhost Database: pessdb\_peterleow Table: incident

Field	Type	Length/Values <sup>1</sup>	Default <sup>2</sup>	Collation	
incidentId	INT	11	None		
callerName	VARCHAR	30	None	latin1_swedish_ci	
phoneNumber	VARCHAR	10	None	latin1_swedish_ci	
incidentTypeId	VARCHAR	3	None	latin1_swedish_ci	
incidentLocation	VARCHAR	50	None	latin1_swedish_ci	
incidentDesc	VARCHAR	100	None	latin1_swedish_ci	
incidentStatusId	VARCHAR	1	None	latin1_swedish_ci	
timeCalled	TIMESTAMP		CURRENT_TIMESTAMP		on u

2. Set primary key and check the **AUTO\_INCREMENT** option for **incidentId**. You have created an **incident** table in the **yourname\_pessdb** database as shown:

Server: localhost Database: pessdb\_peterleow Table: incident

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

```
SELECT *
FROM 'incident'
LIMIT 0, 30
```

Profiling [ Edit ] [ Explain SQL ] [ Create PHP Code ] [ Refresh ]

	Field	Type	Collation	Attributes	Null	Default	Extra	Action
<input checked="" type="checkbox"/>	incidentId	int(11)			No	None	auto_increment	
<input type="checkbox"/>	callerName	varchar(30)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	phoneNumber	varchar(10)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	incidentTypeId	varchar(3)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	incidentLocation	varchar(50)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	incidentDesc	varchar(100)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	incidentStatusId	varchar(1)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	timeCalled	timestamp		on update CURRENT_TIMESTAMP	No	CURRENT_TIMESTAMP	on update CURRENT_TIMESTAMP	

Check All / Uncheck All With selected: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Print view Relation view Propose table structure

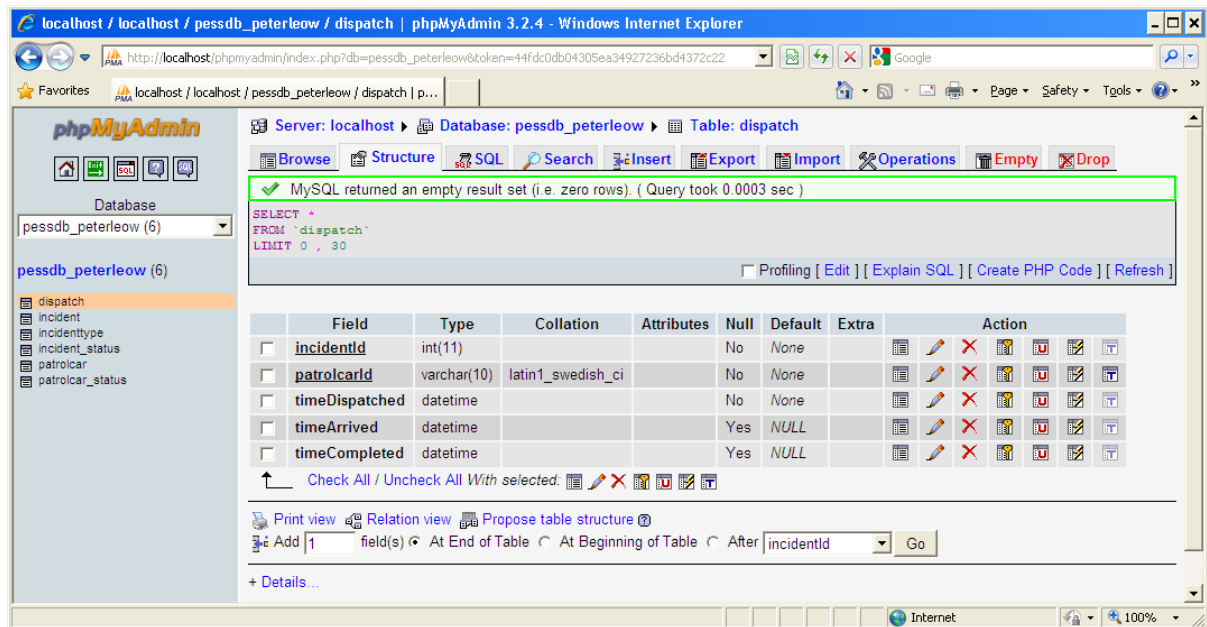
Add 1 field(s) At End of Table At Beginning of Table After incidentId Go

3. Continue to create another 5 tables as follows:

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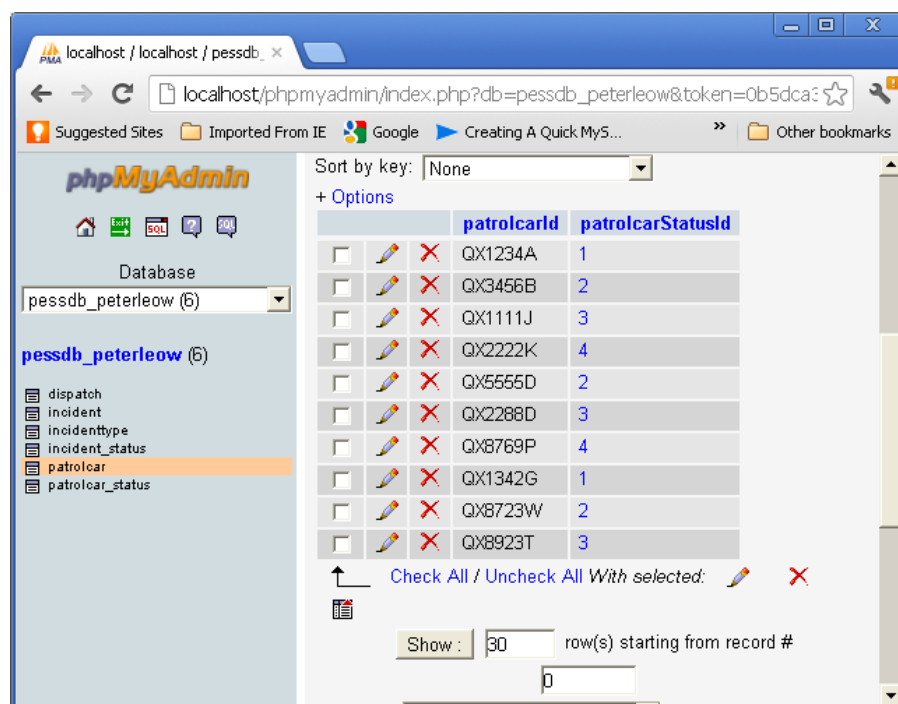
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## Part (C): Insert Data

4. Insert data for tables **patrolcar** (use data below) and **patrolcar\_status**. Should you enter **patrolcar** table before **patrolcar\_status** table?



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## Part (D): Create User Account

5. You must create a separate user account for your application to access the database with limited privileges.
6. Select the **yourname\_pessdb** database, Privileges > Add a new User as shown (use **yourname** for User name field and **password** for Password field:

The screenshot shows the phpMyAdmin interface for adding a new user. The browser address bar indicates the URL: localhost/phpmyadmin/index.php?db=pessdb\_peterleow&token=8ae9e249e2b17b89de16fb16f0eec013. The left sidebar shows a list of databases: information\_schema (28), mysql (23), pessdb\_peterleow (5), and phpmyadmin (8). The main content area is titled 'Login Information' and contains the following fields:

- User name: Use text field: peterleow
- Host: Any host
- Password: Use text field: [masked]
- Re-type: [masked]
- Generate Password: [Generate button]

Below the login information is the 'Database for user' section with the following options:

- ☐ None
- ☐ Create database with same name and grant all privileges
- ☐ Grant all privileges on wildcard name (username\\_%)
- ☒ Grant all privileges on database "pessdb\_peterleow"

The 'Global privileges (Check All / Uncheck All)' section is also visible, with a note: 'Note: MySQL privilege names are expressed in English'. It contains four columns of checkboxes for various privileges:

- Data:** SELECT, INSERT, UPDATE, DELETE, FILE
- Structure:** CREATE, ALTER, INDEX, DROP, CREATE TEMPORARY TABLES, SHOW VIEW, CREATE ROUTINE, ALTER ROUTINE, EXECUTE, CREATE VIEW, EVENT, TRIGGER
- Administration:** GRANT, SUPER, PROCESS, RELOAD, SHUTDOWN, SHOW DATABASES, LOCK TABLES, REFERENCES, REPLICATION CLIENT, REPLICATION SLAVE, CREATE USER
- Resource limits:** MAX QUERIES PER HOUR, MAX UPDATES PER HOUR, MAX CONNECTIONS PER HOUR, MAX USER\_CONNECTIONS

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The screenshot shows the phpMyAdmin interface. On the left, a sidebar lists databases: information\_schema (28), mysql (23), pessdb\_peterleow (5), and phpmyadmin (8). The main area displays a success message: "You have added a new user." followed by the SQL commands used to create the user and grant privileges. Below this, the "Edit Privileges: User 'peterleow'@%' - Databases pessdb\_peterleow" screen is shown. It includes a note about MySQL privilege names and three sections: Data (SELECT, INSERT, UPDATE, DELETE), Structure (CREATE, ALTER, INDEX, DROP, etc.), and Administration (GRANT, LOCK TABLES, REFERENCES). The "Data" section has all checkboxes selected.

localhost / localhost | phpMyAdmin

localhost/phpmyadmin/index.php?db=pessdb\_peterleow&token=8ae9e249e2b17b89de16fb16f0eec013

Suggested Sites Imported From IE Google Creating A Quick MySQL NTU Relational Database Design W/ Entity-relationship mo... Other bookmarks

phpMyAdmin

- information\_schema (28)
- mysql (23)
- pessdb\_peterleow (5)
- phpmyadmin (8)

Please select a database

Export Import Relational Database Design www3.ntu.edu.sg/home/ehchua/programming/sql/Relational\_Database\_Design.html

✓ You have added a new user.

```
CREATE USER 'peterleow'@'%' IDENTIFIED BY '****';
GRANT USAGE ON *.* TO 'peterleow'@'%' IDENTIFIED BY '****' WITH MAX_QUERIES_PER_HOUR 0 MAX_CONNECTIONS_PER_HOUR 0 MAX_UPDATES_PER_HOUR 0 MAX_USER_CONNECTIONS 0;
GRANT ALL PRIVILEGES ON `pessdb_peterleow`.* TO 'peterleow'@'%' ;
```

[ Edit ] [ Create PHP Code ]

Edit Privileges: User 'peterleow'@%' - Databases pessdb\_peterleow

Database-specific privileges (Check All / Uncheck All)

Note: MySQL privilege names are expressed in English

Data

- ☒ SELECT
- ☒ INSERT
- ☒ UPDATE
- ☒ DELETE

Structure

- ☐ CREATE
- ☐ ALTER
- ☐ INDEX
- ☐ DROP
- ☐ CREATE TEMPORARY TABLES
- ☐ SHOW VIEW
- ☐ CREATE ROUTINE
- ☐ ALTER ROUTINE
- ☐ EXECUTE
- ☐ CREATE VIEW
- ☐ EVENT
- ☐ TRIGGER

Administration

- ☐ GRANT
- ☐ LOCK TABLES
- ☐ REFERENCES

Go

The screenshot shows the phpMyAdmin interface with the "Privileges" tab selected. It displays a table of users having access to the "pessdb\_peterleow" database. The table has columns: User, Host, Type, Privileges, Grant, and Action. Two users are listed: "peterleow" with host "%" and type "wildcard: pessdb\_peterleow", and "root" with host "localhost" and type "global". The "root" user has "ALL PRIVILEGES" and "Grant" is "Yes".

localhost / localhost / pessdb\_

localhost/phpmyadmin/index.php?db=pessdb\_peterleow&token=0b5dca321649d093ad554777727777f

Suggested Sites Imported From IE Google Creating A Quick MySQL NTU Relational Database Design Other bookmarks

phpMyAdmin

Database

pessdb\_peterleow (6)

pessdb\_peterleow (6)

- dispatch
- incident
- incidenttype
- incident\_status
- patrolcar
- patrolcar\_status

Server: localhost Database: pessdb\_peterleow

Structure SQL Search Query Export Import Designer

Operations Privileges Drop

Users having access to "pessdb\_peterleow"

User	Host	Type	Privileges	Grant	Action
peterleow	%	wildcard: pessdb_peterleow	SELECT, INSERT, UPDATE, DELETE	No	
root	localhost	global	ALL PRIVILEGES	Yes	

Add a new User

Open new phpMyAdmin window

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## Part (E): Review

1. Why are the purposes of **incidenttype** table and **patrolcar\_status** table?
2. Why create separate user account for your application?

- END -