

Faculty of Information and Communication Technology

ITCS210-Exercise

In this exercise, you need to create your own web service using PHP. The web service will allow user to search latitude and longitude of places. You search can search by the followings:

1. Place id
2. Place name

Firstly, we will navigate you to the steps of creating a database and table using phpmyadmin.

1. Start web server and MySQL server
2. Open phpmyadmin using a web browser with URL "<http://localhost/phpmyadmin/>"
3. On phpmyadmin, creating a new user on **user accounts** tab and add the information as displayed in the following screenshot (password: **rest**):

The screenshot shows the 'Add user' form in phpMyAdmin. The 'Login Information' section is active, showing fields for User name (restuser), Host name (localhost), Password (rest), and Re-type (rest). The 'Database for user account' section is also visible, with options to create a database and grant privileges. The 'Global privileges' section is partially visible at the bottom, showing checkboxes for Data, Structure, Administration, and Resource limits.

Login Information

User name: Use text field:

Host name: Use text field:

Password: Use text field: Strength:

Re-type:

Authentication Plugin:

Generate password:

Database for user account

☐ Create database with same name and grant all privileges.

☐ Grant all privileges on wildcard name (username_%).

Global privileges ☒ Check all

Note: MySQL privilege names are expressed in English.

☒ Data ☒ Structure ☒ Administration ☐ Resource limits

Then Click **Go**. Now, you should have a new user created.

4. Next, we are going to create a new database. Go to **Databases** tab. Adding the information as shown in the following image:

[Databases](#)
[SQL](#)
[Status](#)
[User accounts](#)

Databases

[Create database](#)

Then click **Create**. You will see the new database **restdb** created on the left panel.

- Next, we are going to create a table. Click on **restdb**. Then add a name of a new table as follow and click **Go**.

[Structure](#)
[SQL](#)
[Search](#)
[Query](#)
[Export](#)
[Import](#)
[Operations](#)
[Privileges](#)
[Routines](#)
[Events](#)
[Triggers](#)
[More](#)

No tables found in database.

[Create table](#)

Name: Number of columns:

Then entering the information as shown in the below image:

[Browse](#)
[Structure](#)
[SQL](#)
[Search](#)
[Insert](#)
[Export](#)
[Import](#)
[Privileges](#)
[Operations](#)
[Tracking](#)
[Triggers](#)

Table name: Add column(s)

[Structure](#)

| Name | Type | Length/Values | Default | Collation | Attributes | Null | Index | Comments |
|--|--------------------------------------|---------------------------------|-----------------------------------|-----------|------------|--------------------------|--------------------------------------|----------|
| <input type="text" value="id"/> | <input type="text" value="INT"/> | | <input type="text" value="None"/> | | | <input type="checkbox"/> | <input type="text" value="PRIMARY"/> | |
| <input type="text" value="placename"/> | <input type="text" value="VARCHAR"/> | <input type="text" value="50"/> | <input type="text" value="None"/> | | | <input type="checkbox"/> | <input type="text" value="---"/> | |
| <input type="text" value="placelat"/> | <input type="text" value="DOUBLE"/> | | <input type="text" value="None"/> | | | <input type="checkbox"/> | <input type="text" value="---"/> | |
| <input type="text" value="placelong"/> | <input type="text" value="DOUBLE"/> | | <input type="text" value="None"/> | | | <input type="checkbox"/> | <input type="text" value="---"/> | |

Table comments: Collation: Storage Engine:

PARTITION definition:

Partition by: ()

Partitions:

Console

Then click **Save**. Now, you will have the table **placelocation** with 4 attributes. Id is the primary key. Placename is the name of place. Placelat is the latitude of place. Placelong is the longitude of place.

6. Next, we are going to insert the data into the database. Click on the table **placelocation**. Then go to **SQL** tab. Enter the following SQL statement:

```
INSERT INTO `placelocation`(`id`, `placename`, `placelat`,  
`placelong`) VALUES  
(1,'Faculty of Information and Communication  
Technology',13.794438,100.324733),  
(2,'Faculty of Engineering',13.794438,100.324733),  
(3,'Institute of Nutrition',13.796116,100.322426),  
(4,'Mu Sports Complex',13.795647,100.321042),  
(5,'Mahidol Learning Center',13.793756,100.321165);
```

7. Now, we have a table with the data.

Secondly, you need to create a webservice to search the latitude and longitude of each place by place id. You need to create the following:

1. **Configuration.json** to store host, user, password, and database
2. **Api.php** to connect to database (The SQL that you need to use in your code is `SELECT * FROM placelocation AS p WHERE id = [id]`)
3. **Index.php** to act as the main service

Hint! Follow the slides presented in the class.

Thirdly, you need to create a client using **JQuery and html** to call the service created. After you can get the information from the web service, you need to create **a map with a marker of a particular place using Google Map API**.

Extra

You can try to map a nice URL to internal file and let the client call that URL.