IBM Bluemix Tutorial

Uploading and Running a MySQL Web-based Management in Bluemix v2.0

This laboratory exercise demonstrates how to upload and run phpMyAdmin.

phpMyAdmin is a free software tool written in PHP, intended to handle the administration of a MySQL database server over the Web (www.phpmyadmin.net/).

Prerequisite

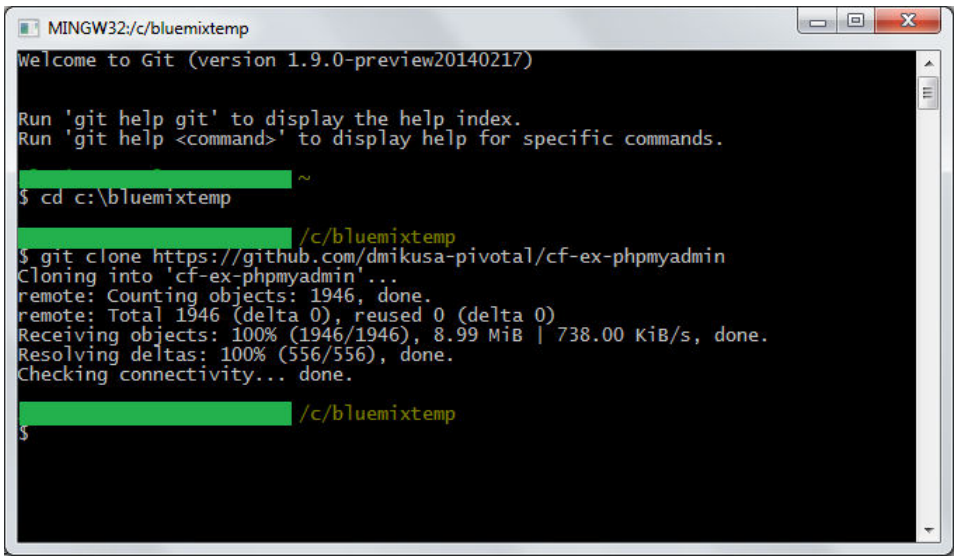
Item	Comment
Git	do the "Setting-up Laboratory Environment" (section: Installing Git) laboratory exercise to install Git
cf tool	do the "Setting-up Laboratory Environment" (section: Installing the cf tool) laboratory exercise to install the cf tool
Bluemix Account	do the "Creating a Bluemix Account" laboratory exercise if you do not have a Bluemix account

Procedure

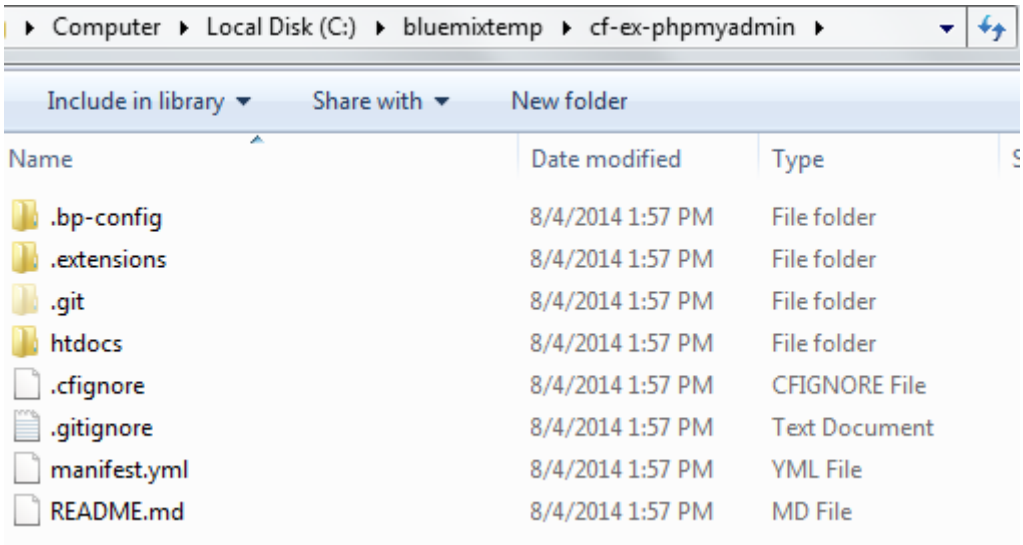
1. Make sure that the folder `c:\bluemixtemp` exists. If not, create this folder.

2. Open a Git Bash. Enter the following commands to go to the `c:\bluemixtemp` folder and download the phpMyAdmin web application.

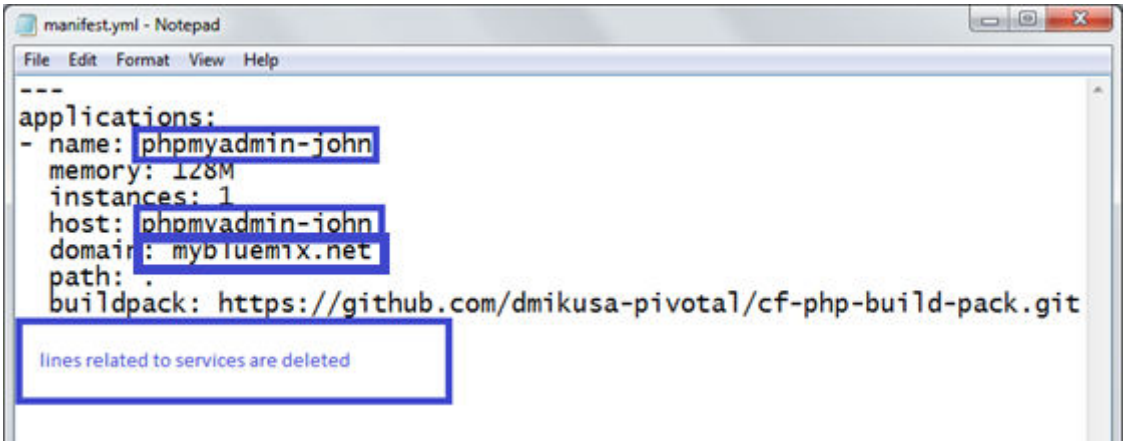
Git Bash
`GIT>cd c:\bluemixtemp` `GIT>git clone https://github.com/dmikusa-pivotal/cf-ex-phpmyadmin`



3. Open a Windows Explorer window. Go to the `c:\bluemixtemp\cf-ex-phpmyadmin` folder.

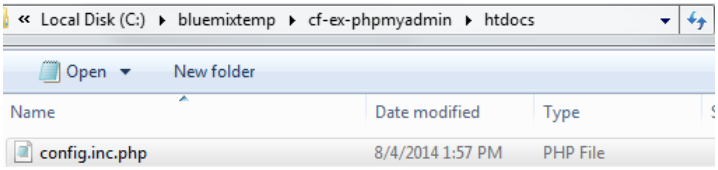


4. Open the `manifest.yml` file in Notepad. Change the following values:
    a. name: phpmyadmin-<your name>
    b. host: phpmyadmin-<your name>
    c. domain: mybluemix.net
    d. delete all lines related to services

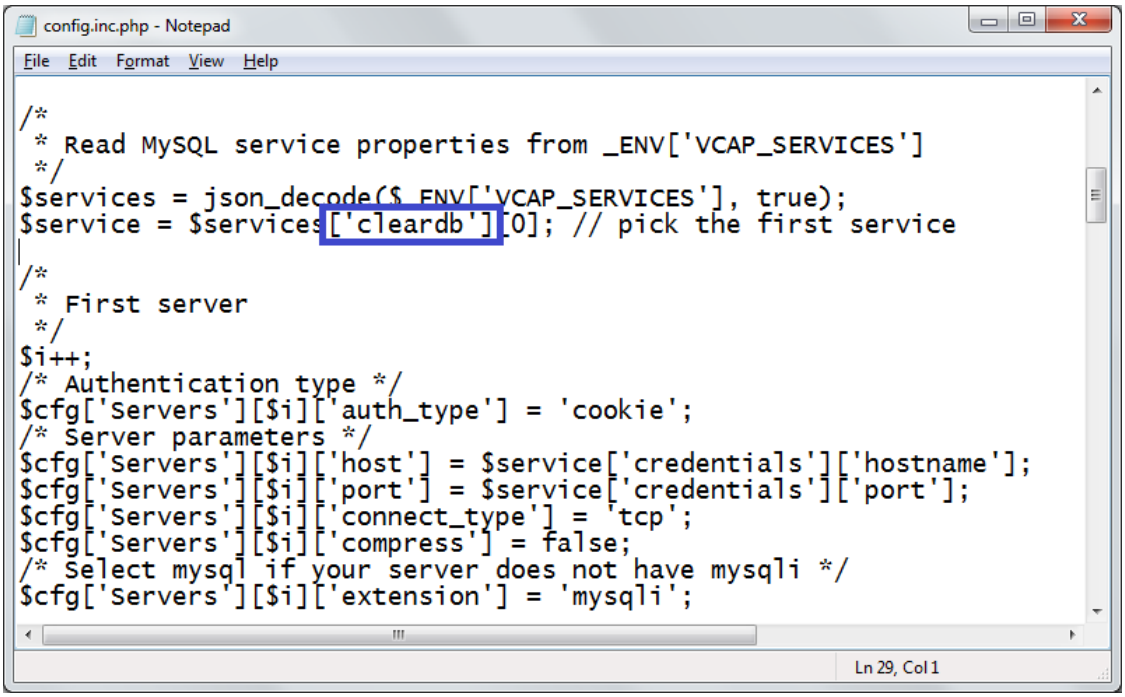


5. Close Notepad.

6. In Windows Explorer, go to the `c:\bluemixtemp\cf-ex-phpmyadmin\htdocs` folder.



7. Open the `config.inc.php` file in Notepad. Look for the word 'cleardb'.
    a. change the word 'cleardb' to 'mysql-5.5'
    b. make sure that the you type exactly 'mysql-5.5'

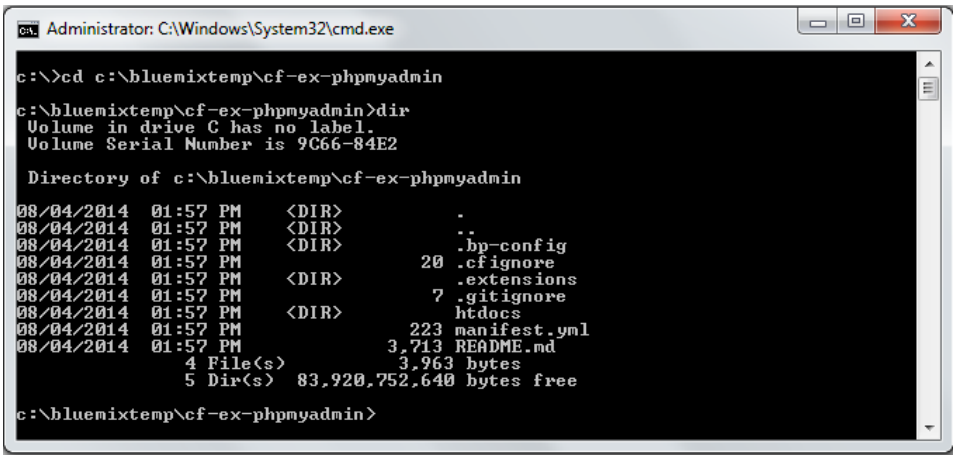


Note: The phpMyAdmin web application regularly gets updated. It is possible that the version you downloaded through git is relatively newer than the one used in this laboratory manual. This means that some of the files you downloaded (e.g., config.inc.php) have some differences from the sample screenshots provided in this manual.

8. Close Notepad.

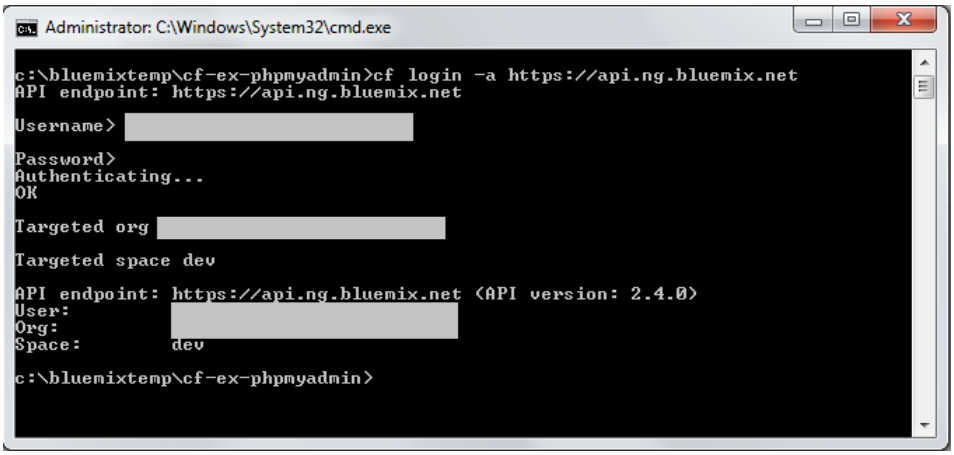
9. Open a Windows command prompt. Enter the following command to go to the directory of the downloaded phpMyAdmin web application.

Windows Command Prompt
CMD>cd c:\bluemixtemp\cf-ex-phpmyadmin CMD>dir



10. Enter the following command to login to Bluemix. Enter your Bluemix username and password when prompted.

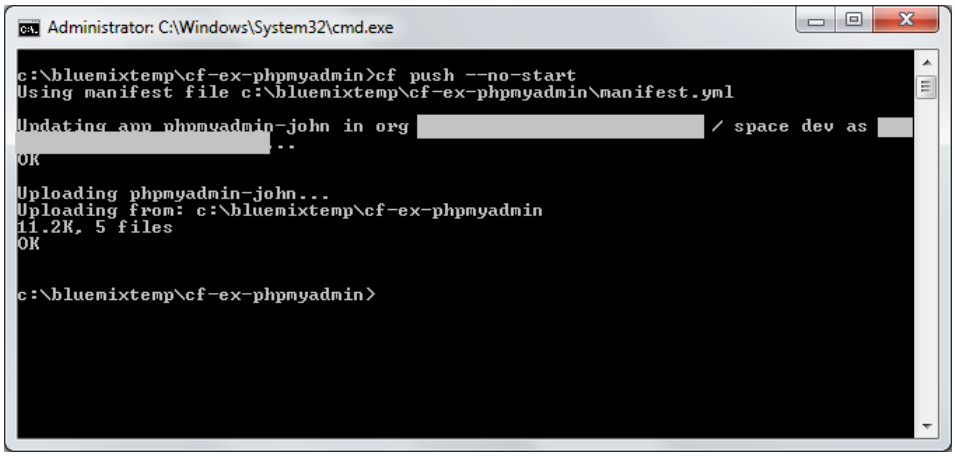
Windows Command Prompt
CMD>cf login -a https://api.ng.bluemix.net



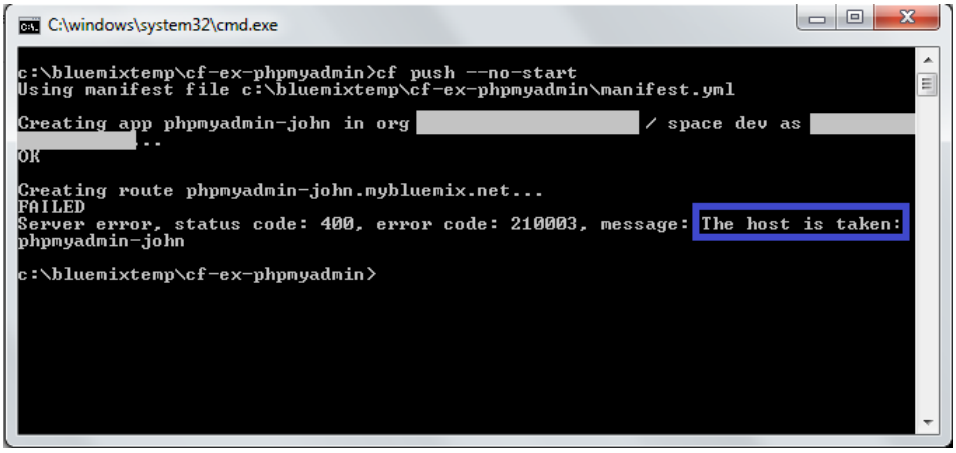
11. Enter the following command to upload the phpMyAdmin web application to Bluemix.

Windows Command Prompt
`CMD>cf push --no-start`

Note: All of the necessary information to push the application are found already in the `manifest.yml` file. This is the reason why the push command used in this step only has one parameter.

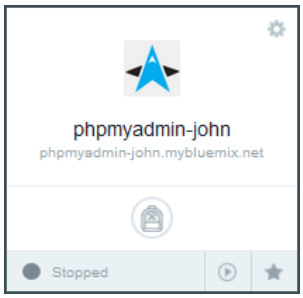


12. If you encounter the error "The host is taken", modify the `name` and `host` fields found in the `manifest.yml` file and try to upload the application again.

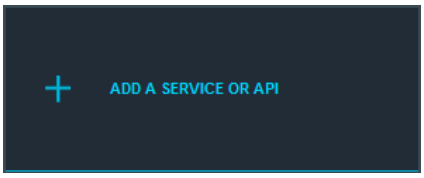


13. Go to the IBM Bluemix website and login using your Bluemix account (http://ibm.biz/bluemixph).

14. In the dashboard, click your newly uploaded application.

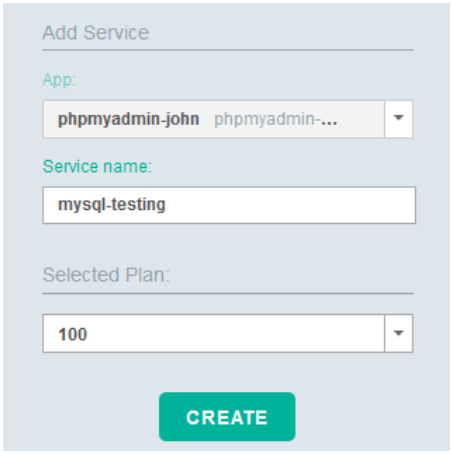


15. In the page showing the overview of your application click “ADD A SERVICE OR API”.



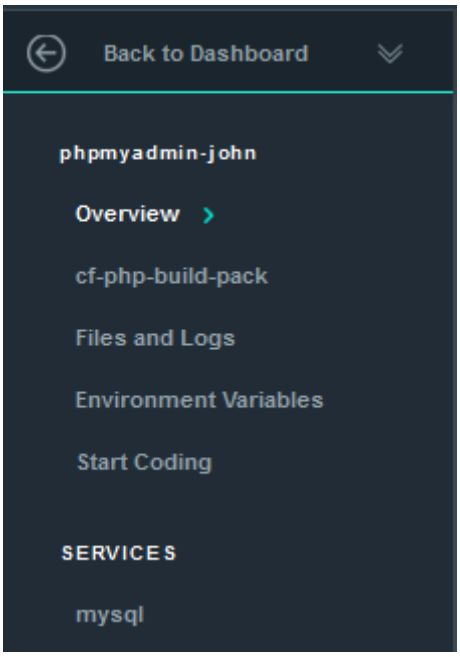
16. Under “Data Management”, click “mysql”.

17. In “Add Service” form, change the service name to “mysql-testing”. Click “CREATE”.



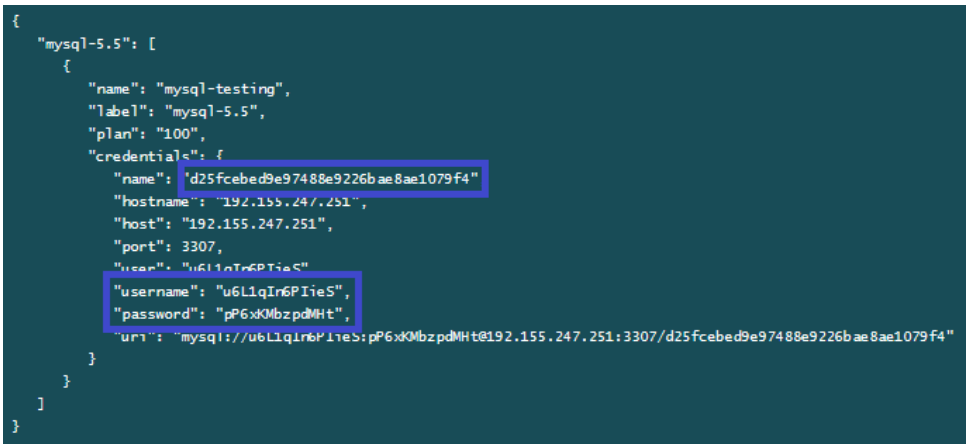
18. In the Dashboard, click the “START” button.

19. In the left pane, click “Environment Variables”.

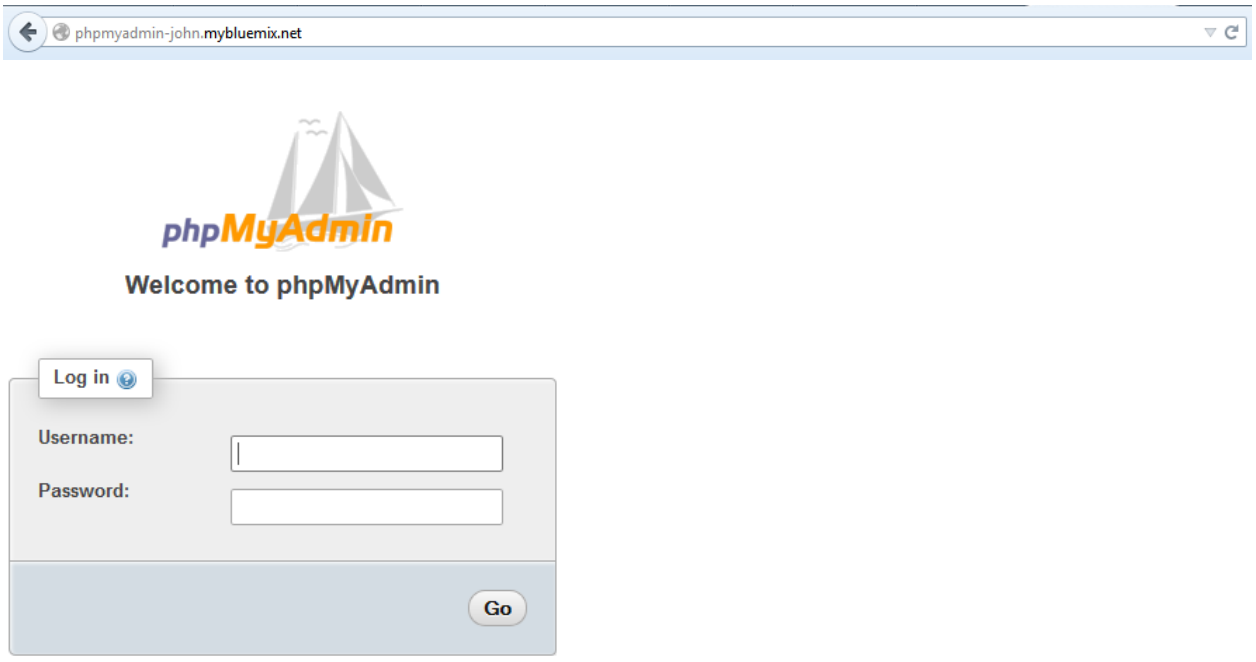


20. Under “Environment Variables”, take note of the username and password. This is needed when you login to the phpMyAdmin web application. In addition, take note of the database name.

    You may want to save the username, password, and database name in a text file so that you can easily access these values when needed.

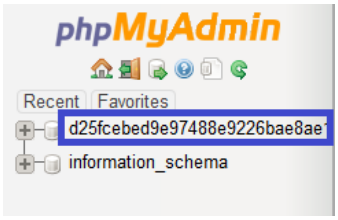


21. Open another browser tab and go to http://phpmyadmin-<your name>.mybluemix.net.



22. Use the username and password you took note from the “Environment Variables” to login to the phpMyAdmin application.

23. In the left pane of the phpMyAdmin application, click the name of the database that you took note in the “Environment Variables”. You will create a table in this database for testing purposes.

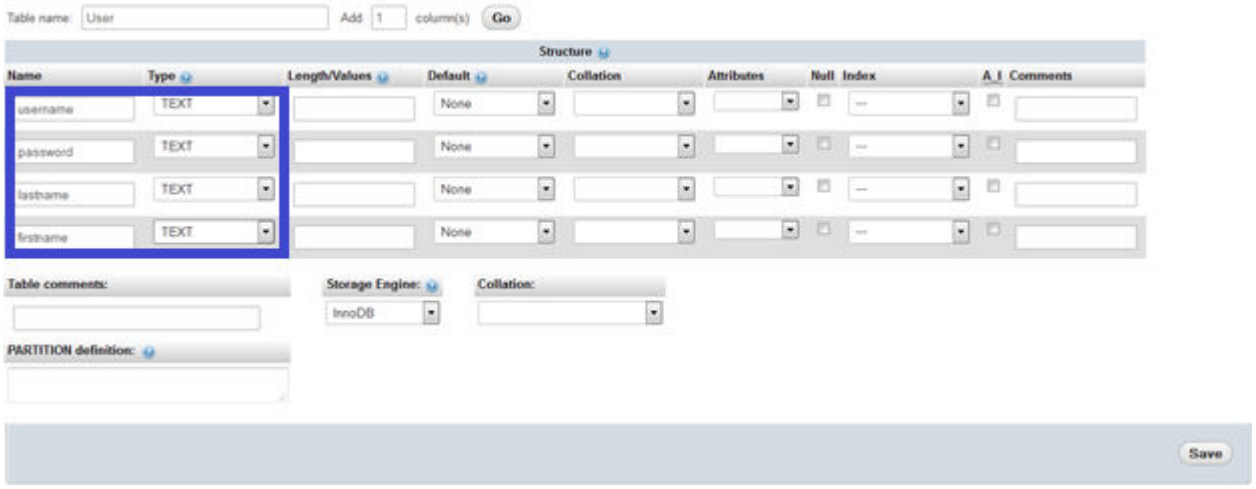


24. In the “Create table” form, type the following:
    a. Name: User
    b. Number of columns: 4

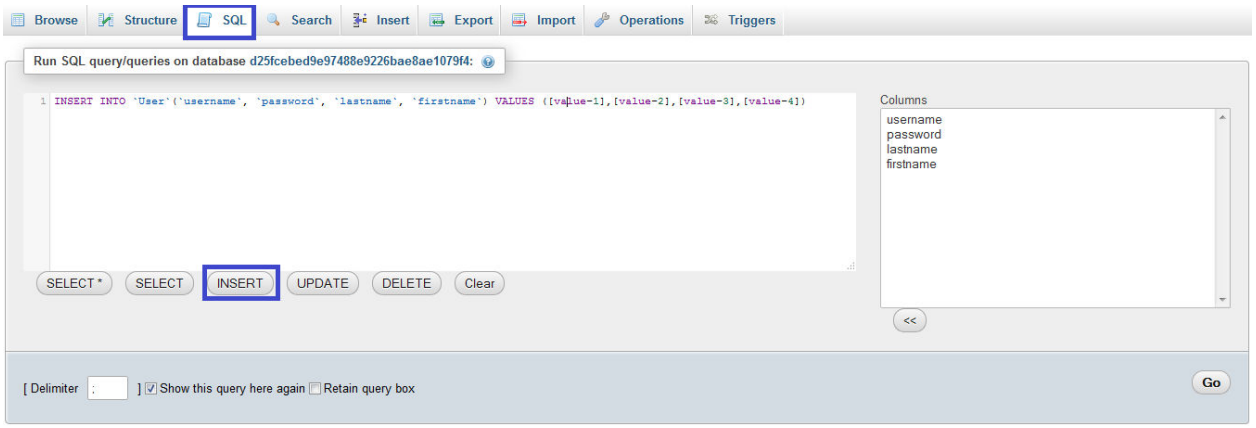
    Click “Go”.

25. Define the following column names and types:
    a. username / TEXT
    b. password / TEXT
    c. lastname / TEXT
    d. firstname / TEXT

    Click “Save”.



26. Click the “SQL” tab followed by the “INSERT” button.



27. Insert a row in the User table containing the following values:
    a. username: user1
    b. password: abc123
    c. lastname: Delacruz
    d. firstname: Juan

    You can do this by changing the contents of the query text area from:

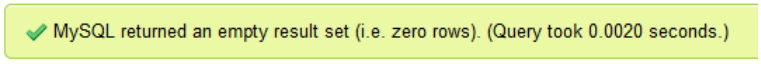
```
INSERT INTO `User`(`username`, `password`, `lastname`, `firstname`) VALUES ([value-1],[value-2],[value-3],[value-4])
```

    To:

```
INSERT INTO `User`(`username`, `password`, `lastname`, `firstname`) VALUES ('user1','abc123','Delacruz','Juan')
```

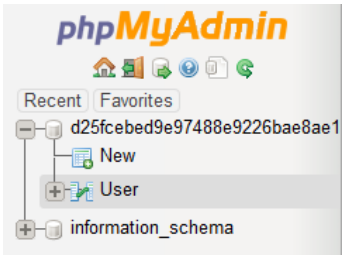
    Once the contents of the query text area is changed, click the “Go” button.

28. The row is inserted successfully if you see the following message:



29. Repeat the previous steps to insert a second row. The second row in the User table should contain the following:
    a. username: user2
    b. password: secret123
    c. lastname: Garcia
    d. firstname: Maria

30. In the left pane, click the User table.



31. Verify that the two rows are inserted successfully.

username	password	lastname	firstname
user1	abc123	Delacruz	Juan
user2	secret123	Garcia	Maria

32. The User table and its contents can be used for sample applications that you will create in other laboratory exercises.