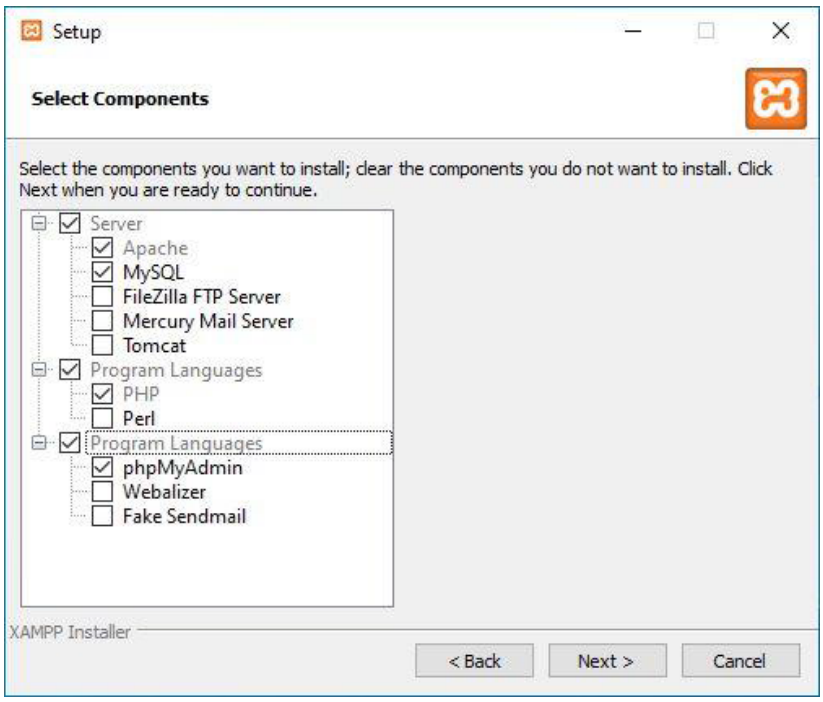
Lab 1: Preparation of the work environment for the MySQL database using XAMPP and HeidiSQL

1. The XAMPP distribution package (version 8.0.11) can be downloaded from the website:

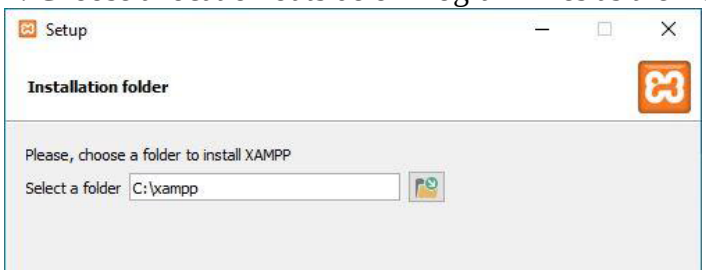
https://sourceforge.net/projects/xampp/files/XAMPP%20Windows/8.0.11/xampp-portable-windows-x64-8.0.11-0-VS16-installer.exe/download

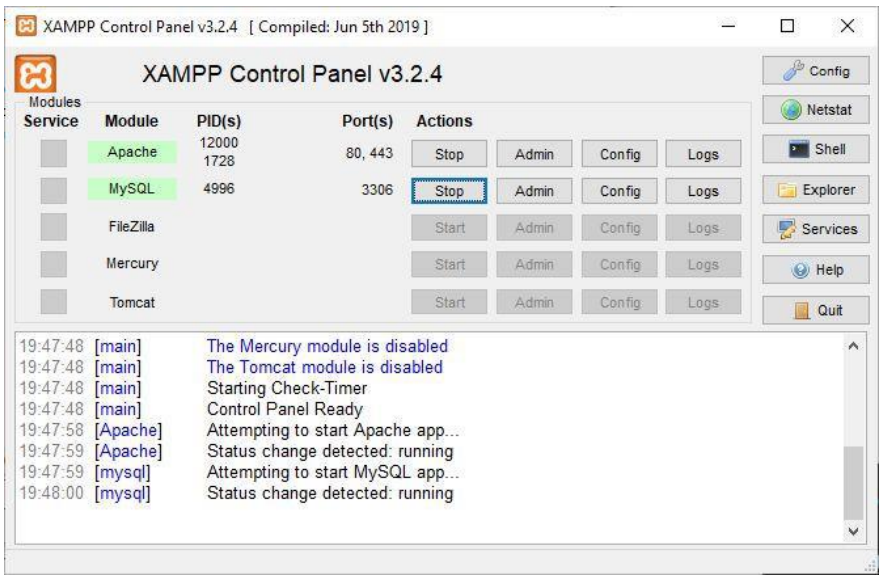
2. Install XAMPP (more information can be found here: https://www.apachefriends.org/faq_windows.html). (You can also use the portable version of the program XAMPP, https://sourceforge.net/projects/xampp/files/XAMPP%20Windows/8.0.11/xampp-portable-windows-x64-8.0.11-0-VS16.zip/download



3. Choose components of instalation: Apache, MySQL, PHP, phpMyAdmin:

4. Choose a location outside of Program Files as the installation folder, such as C: \ xampp.

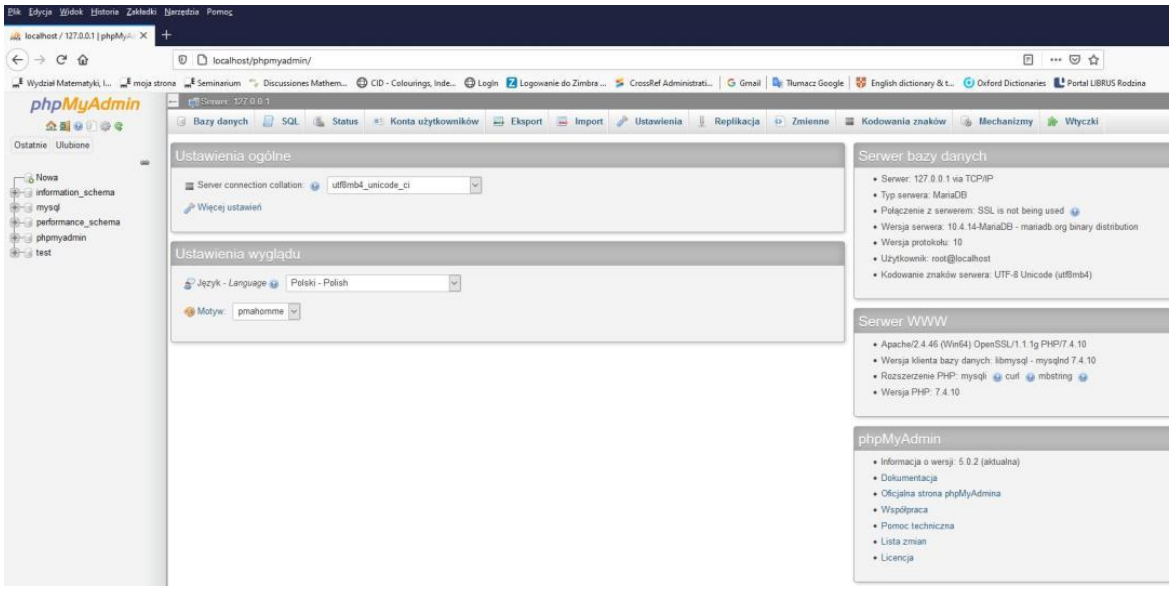




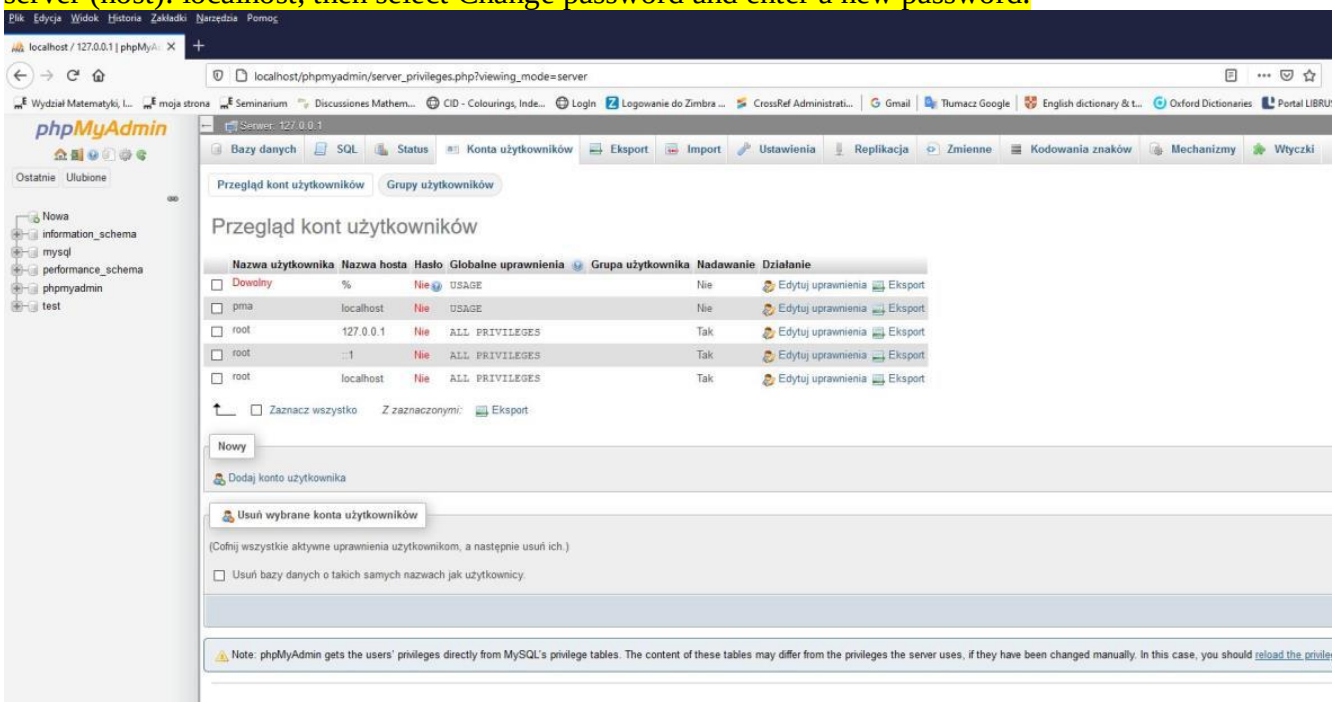
5. Run the program's control panel (XAMPP Control Panel) and check if MySQL and Apache start correctly.

6. Check if the XAMPP system handler starts correctly in the web browser (select the Admin action for the Apache module), the following page should open:

7. Start the PhpMyAdmin console (select either the Admin action for the MySQL module in the XAMPP control panel or the phpMyAdmin link in the previously opened browser window):



8. Using phpMyAdmin, set the password for the root user for MySQL (by default, the root user does not have any password set on the XAMPP system). Users and passwords can be checked by selecting the User Accounts tab. Set a password for the root user - click the Edit permissions link, for user: root, server (host): localhost, then select Change password and enter a new password.

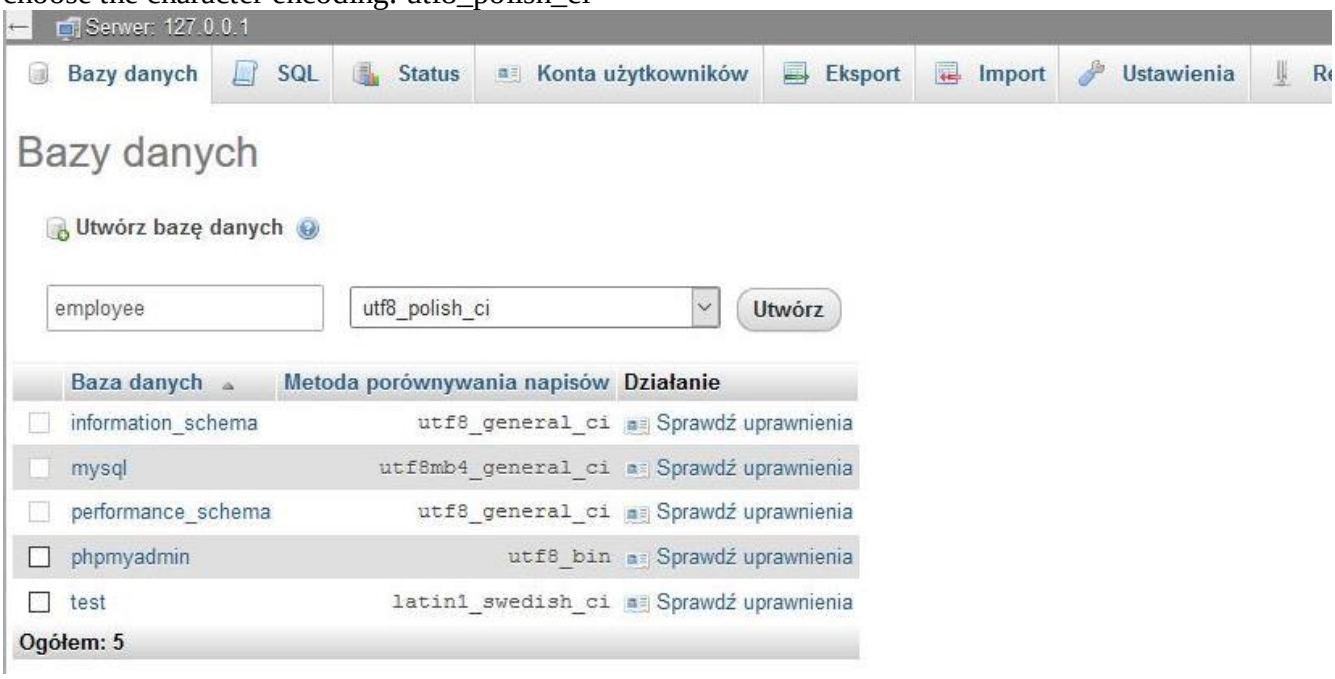


9. After entering the password, we will receive an error message (phpMyAdmin still "remembers" that the root user does not have a password):

10. Correct the entries in the config.inc.php configuration file for phpMyAdmin - in the XAMPP control panel, select Apache -> Config -> phpMyAdmin (config.inc.php). Change the entry in the line $ cfg ['Servers'] [$ i] ['auth_type'] = 'config'; from config to cookie. More information about the configuration parameters: http: //localhost/phpmyadmin/doc/html/config.html Now the MySQL server and the PhpMyAdmin panel are password protected and to run PhpMyAdmin we have to enter the password:

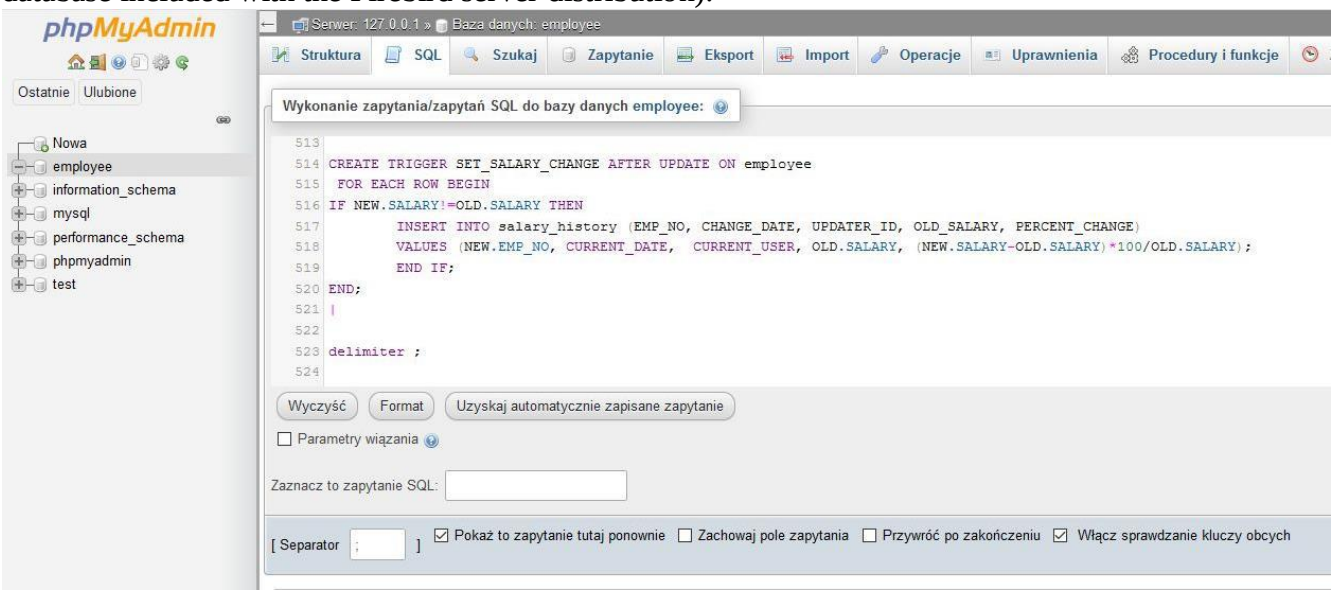
11. Stop MySQL server. Change its configuration. Choose in control panel MySQL->Config->my.ini. In the configuration file change the line
sql_mode=NO_ZERO_IN_DATE,NO_ZERO_DATE,NO_ENGINE_SUBSTITUTION
to this (this change influences the way of interpreting SQL queries with GROUP BYclause, more info: https://mariadb.com/kb/en/sql-mode/):
sql_mode=NO_ZERO_IN_DATE,NO_ZERO_DATE,NO_ENGINE_SUBSTITUTION,ONLY_FULL_GROUP_BY

12. Restart the MySQL server. Check the capabilities of the phpMyAdmin panel.
13. During the classes, we will work with sample employee database, containing data of a fictional company. We will create the employee base using an SQL script. The script that generates the employee base is included in the materials for classes (employee.sql file). In order to create a database, open phpMyAdmin, select the Databases option, then create the database with the name: employee, choose the character encoding: utf8_polish_ci

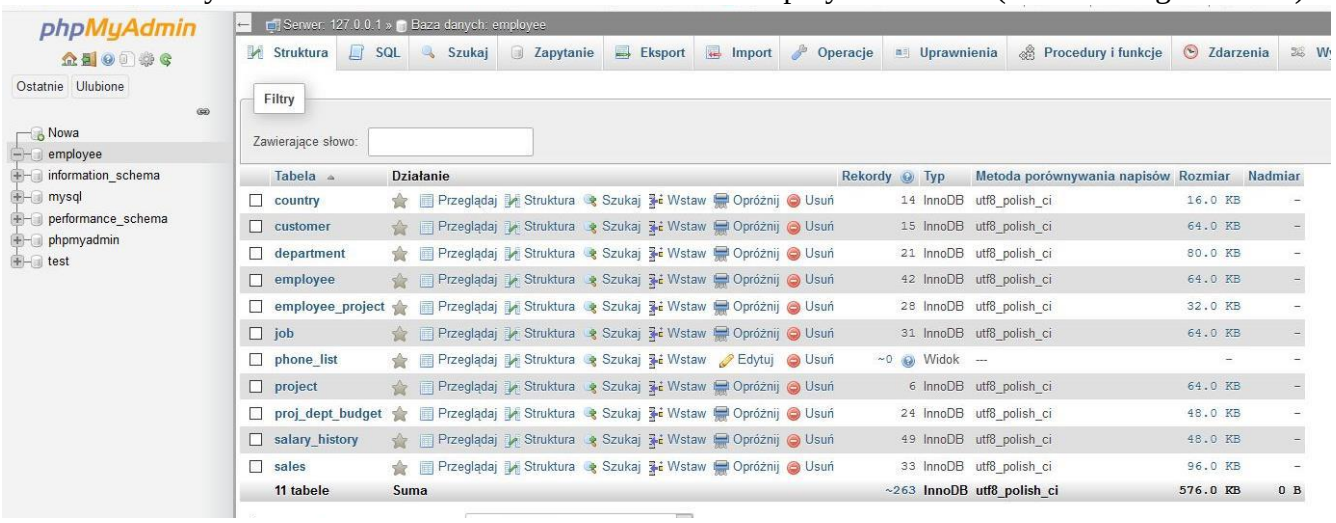


14. Select the employee database from the database tree on the left, go to the SQL tab and paste the script from the employee.sql file into the SQL editor, and then select Execute. The created employee

database should contain 11 tables. (note. The employee database was created on the basis of the sample database included with the Firebird server distribution).

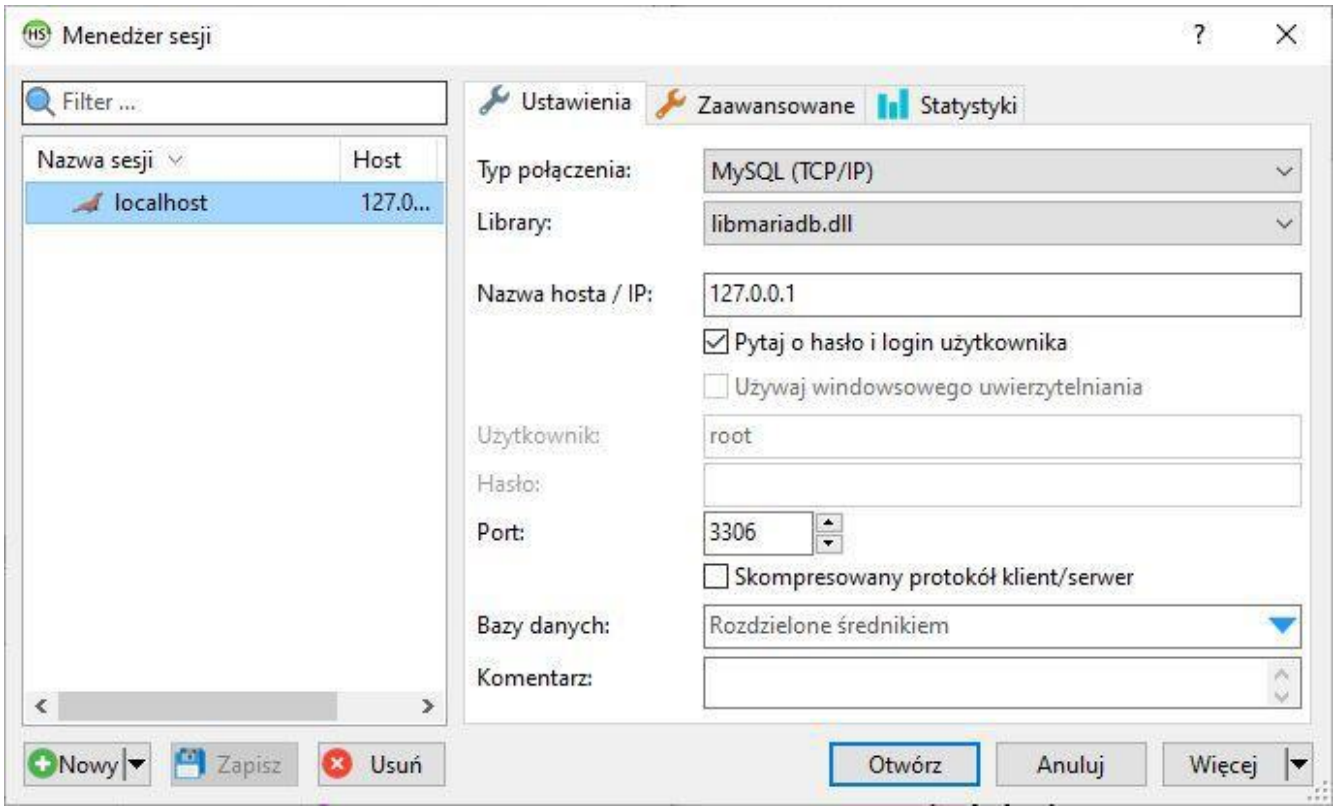


15. Familiarize yourself with the structure and data of the employee database (do not change the data).



16. Install the client that we will use to connect to the MySQL database: HeidiSQL program (download fromhttps://www.heidisql.com/download.php, also available in portable version).

17. Open HeidiSQL. Create a new localhost session, MySQL connection, user root. Open a session (login as root with the password you created for the MySQL server in phpMyAdmin).



18. Familiarize yourself with the operation of HeidiSQL. Check how you can view the employee database structure and view data.