

## Pre-Project - XAMPP (required for both projects)

XAMPP is a collection of free software. We need XAMPP in order to use the apache web server, PHP, and databases for our class. Your task is to install the XAMPP suite and test the apache web server. Therefore, please

- Visit [apachefriends.org](http://apachefriends.org) and download the correct installer for your OS
- Install the software
- Open a web browser
- Navigate to "<http://localhost>"
- Check if Apache works

For help see the frequently asked questions

- OS X - [https://www.apachefriends.org/faq\\_osx.html](https://www.apachefriends.org/faq_osx.html)
- Windows - [https://www.apachefriends.org/faq\\_windows.html](https://www.apachefriends.org/faq_windows.html)
- Linux - [https://www.apachefriends.org/faq\\_linux.html](https://www.apachefriends.org/faq_linux.html)

## Project A - A web based calculator (50 points)

Use HTML & bootstrap to create an online calculator capable of operations add, multiply, subtract, and divide. As an example, the calculator UI could look like this.

0			
7	8	9	/
4	5	6	*
1	2	3	-
0	.	=	+

<https://www.w3schools.com/html/>

[https://www.w3schools.com/bootstrap4/bootstrap\\_get\\_started.asp](https://www.w3schools.com/bootstrap4/bootstrap_get_started.asp)

## Project B - User Management (50 points)

Create a simple user management system. Users can register themselves, by entering registration information. After registration they are able to login to the system.

- Create a database capable of holding user information (username, email, password)
  - Assure Apache (webserver) and MySQL (database) are running on your system (from XAMPP)
  - In your browser, navigate to **localhost/phpmyadmin** and use the web interface to create a new database
  - Use the web interface to create a new table. Think about which data you need to store for your users.
- Using bootstrap, create a register web page on which users register with username, email, and password.
- A click on a button stores the registration data into the database
- Create a login page that checks against the database whether a user entered correct credentials (username, password).
- Implement a login form validator for the login and registration form
  - Notify the user whenever an invalid email address is entered.
  - An email address is valid if it contains a local part and a domain part, separated by the symbol @, e.g.:
    - [marco.hudelist@aau.at](mailto:marco.hudelist@aau.at)
    - [marco@itec.aau.at](mailto:marco@itec.aau.at)

### Tutorials

- <https://www.android-examples.com/create-mysql-database-in-phpmyadmin-using-xampp/>
- <https://www.android-examples.com/create-table-in-mysql-db-using-phpmyadmin-xampp-server/>
- Connect from PHP to the database (<https://www.tutorialrepublic.com/php-tutorial/php-mysql-connect.php>)
- Insert some values into the database:  
(<https://www.tutorialrepublic.com/php-tutorial/php-mysql-insert-query.php>)
- Query your database and display your results:  
(<https://www.tutorialrepublic.com/php-tutorial/php-mysql-select-query.php>)