

Manuel Becerra
David Celleri
Dillon Flaschner
Christine Fossenier

COP 4710 Project Design Document

Technology Stack:

The following is an outline of the technologies used to run the web application, followed by how the technologies interact with one another to create a functioning application:

- CSS: Cascading style sheets were used to help establish consistent formatting, such as the navigation bar on the top of each screen.
- HTML: HTML was used to design/implement web pages on the frontend. It's from here that users are able to interact with the application.
- JavaScript: JavaScript code was used & executed via the HTML files in order to execute PHP files hosted on the server & receive the response, updating the HTML file if necessary.
- MySQL: A MySQL database was utilized for this project.
- PHP: PHP was used in order to run SQL statements on the MySQL database from the HTML files.
- XAMPP: XAMPP was used for hosting an Apache HTTP server, as well as a MySQL database.

Communication between the frontend and backend happens in this order:

1. From a frontend HTML file, JavaScript code is executed, either when a file is loaded or when a button is clicked.
2. JavaScript code executes a PHP file hosted on the localhost server via an HTTP request.
3. The PHP file establishes a connection with the MySQL database. The PHP file then executes an SQL statement, sending the result back to the JavaScript code.
4. The JavaScript code receives the response, and updates the HTML file accordingly.

Project Set-up

To run this project, you first need to install XAMPP. Then, find the xampp installation folder (by default C:/xampp) and navigate to xampp/htdocs. There, create a folder called "dbproj" and copy the project code into there.

Then, open the XAMPP Control Panel and start both the Apache and MySQL modules. Go to localhost/phpmyadmin/ in a browser and create a new database called "portmanagement".

Following this, you can import the database and populate it via the COP4710FinalDatabase.sql and COP4710ProjectSAMPLERECORDS.sql files. Then, from localhost/phpmyadmin/ go to User accounts and create a new user with the User name “db” and password “pass” with all global privileges. Once this is done, you can use the application at <http://localhost/dbproj/html/Home.html>.

Division of Work:

This is an outline of the division of work for this project, and the pages each member of the team is responsible for:

- Manuel Becerra:
 - Ship Registration Page
 - Port Entry Page
- David Celleri:
 - Truck Registration Page
 - Truck Driver Page
- Dillon Flaschner:
 - Container Company Registration Page
 - Port Admin Management Page
 - Home Page
- Christine Fossenier:
 - Port Exit Page
 - Crane Operator Page

Attendance of Group Meetings:

All members attended group meetings whenever they were called. Additionally, questions about the project would be answered quickly via online communication.