Assignment 2 - Client-Server application
Deadline 26nd of October 2020 at 16:00

This assignment has 3 parts and focuses on the development of a simple posting system based on nodejs. In this assignment, you will train:

- the development of a stateful client-server application,
- use of asynchronous XHTMLHttpRequest
- testing of your code

Part A) 30 Points

Develop for the nodejs platform a post method called `postmessage` that accepts 2 parameters (topic and data) and saves them together with a timestamp (date and time) in a file called **`posts.txt`**. Make sure that if the file already exists that you add append it - if it doesn't exist you should create it. To simplify your task you may use the npm module express and body-parser. No other libraries are to be used.
Obviously, you are free to use any standard nodejs module e.g. fs.

Part B) 50 Points

Develop a webpage called `posting.html` that allows a user to see all posts, and allows the creation of new posts. You should only use asynchronous XMLHttpRequest calls for client-server communication. To improve the user experience use `alert` to inform the user about the success or failure of posting a new message. Ensure that the displayed posts are up to date e.g. update the data on the webpage if another user made a post.
No javascript libraries are allowed for this part.

Part C) 30 Points

Write a test report that shows how you tested the nodejs code you developed. Your report (short paragraph) should answer the following questions

- How did you test your code?
- How long does it take to process a single post?
- Does the size of the data submitted to the server impact the performance?
- What happens if 2 requests are sent at nearly the same time data to the server?

What to hand in?

Part a) -> one file called server.js (make sure that calling nodejs server.js will work).
Part b) ->one file called posting.html (this file should contain all JS code, and HTML)
Part c) -> one file called report.pdf that contains your report.