ECE 448/528 – Application Software Design

HOMEWORK #4

Due date: Thursday, April 20th 2023, 23:59 PM

1. Consider our members application discussed in Lecture 20-24 *(12 points)*

i)   After the user clicks the checkbox to add/remove a member to/from a group, we wait until the server backend replies to update the state and to update the view. What would happen if it takes a while for the server backend to reply and the user clicks the same checkbox multiple time impatiently?

ii)   To address the potential issues in i), someone proposes to disable the checkbox somehow after the user clicks it and enables it again once the RESTful response to get all groups arrive. List all events involved to implement this solution.

iii)   The solution in ii) should still be implemented winthin the MVC pattern. Discuss the changes you need to make for model, view, and controller. (Note that you don't need to implement it but need to discuss what needs to be added/mofied)

2. For password authentication, if the web application sends the account name and password directly to the server backend, it is possible for a careless backend develop to log the password in plaintext. Discuss a possible alternative. *(3 points)*