W3D1: First class after the midterm, I learned from this session about JavaScript ES6 class syntax, inheritance using JS class syntax, and encapsulation. JavaScript class syntax is very helpful over the JavaScript constructor function. It is also very important to apply object-oriented concepts like encapsulation.

W3D2: This is the first day I learned jQuery. The main concepts we discussed on this day include the advantage of using jQuery over the normal DOM manipulation. And also we discussed the jQuery selectors identification, which states about using CSS-like selectors to get target nodes, jQuery traversal, which is used to find nodes by tree traversal relationships, and I also learned about node manipulation and tree traversal.

W3D3: On this day we learned about JavaScript event handling which includes the concept of JavaScript callbacks, the “this” keyword, and the JS event loop. JS Callback function is a function that is going to be executed after everything on the caller function is executed. This keyword in the event handler refers to the element that the event is registered on. JS evet loop is used to make js asynchronous and used in nodeJS to handle requests.

W3D4: This day I start learning NodeJS which is used to run JavaScript on the server-side. NodeJS has built-in modules which can help us to develop our web application. We can also create our module which is a normal .js file. And also It allows us to use modules written by other developers from npm which are installed automatically when we install nodeJS in our machine.

W3D5: This is the day I explore a new framework, a nodeJs framework, which allows us to develop a serverside js application in a simple and fast manner. Express has GET and POST methods to retrieve data from the server and to write or update data on the server respectively. On this day I have learned about express middleware and express redirect.

W3D6: JavaScript template engine and MVC. Here I explore Embedded JavaScript(EJS) which allows us to connect our data in our .js file to display in the HTML page, it is almost the same as an HTML file. And also we discussed MVC which is focused on the separation of concern on our application into 3 parts, Views (the visible part of our system), Model( which focus on the internal logic of our system including the database), Controllers( this part is used to connect the client-side and the serverside or the view and the model).

W4D1: I this session I met with session and cookies. Sessions and cookies are used to store data as a value pair on the server and the client browser respectively. And also we discussed some concepts on security and attacks. Attacks including session hijacking and cross-site request forgery.

W4D2: This is the last day of the course that I attended very important concepts in any web application programming. It includes the concepts of AJAX (Asynchronous Javascript XML) and JSON (JavaScript object notation). Every modern browser provides an XMLHTTPRequest object which is used to enable Ajax. Instead of using XMLHTTPRequest, it is preferable to use the $.ajax() method because the former is has various browser incompatibilities. JSON is used for Ajax data representation.

SCI: We see Unity in Diversity: by using the same programming language on both the  
client and the server we can leverage our existing knowledge.