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| 1 | Explain what is meant by Rich Web Application Development. Distinguish it from traditional web development  A rich web application is a web application where the client has most, if not all the responsibility for implementing the presentation layer logic. **EXPAND**   * A rich web application is a web application where the client has most, if not all, of the responsibility for implementing the presentation layer logic, i.e. the user interface (UI) and the user experience (UX) facets * This approach is the latest evolution in a series of iterative design changes that web applications have undergone in the decades since the web first appeared * Rich web applications see the significant use of Javascript programming in the client browser often employing a lean data-transfer interface with the server * Resulting in well-established protocols and best practices emerging | 6 Marks |
| 2 | What is the Document Object Model? Explain, giving a couple of examples, how to interact with the DOM in Javascript  The Document Object Model (DOM) is the internal memory representation of the content in a browser window, which can be written to and read from. Displaying the content in a browser is achieved through writing to the DOM. When the DOM is changed, the browser will automatically render those changes to the window view.  Example of using DOM to change the innerHTML string in JS:  document.getElementById("example").innerHTML = "hello world!";  Example of using DOM to change the HTML styling in JS:  document.getElementById("p1").style.color = "red";  Example of using DOM being assigned to events to HTML elements in JS:  document.getElementById("Btn").onclick = displayDate; | 6 Marks |
| 3 | What does it mean for a data structure to be described as a functor? Give a code example in Javascript in your explanation | 6 Marks |
| 4 | What is the de facto standard for data serialisation in the web app world? Give an example | 6 Marks |
| 5 | Describe how the flexbox model works in CSS | 6 Marks |
| 6 | Explain how you can make a network request to a server-side resource in a web app using Javascript | 6 Marks |
| 7 | CSS allows the reuse of code for styling DOM elements. Javascript functions can all be used for element styling and support code reuse. Compare the two approaches | 6 Marks |
| 8 | In asynchronous programming, we have three approaches to handling data which may or may not arrive at some point in the future, namely callbacks, promises and streams. Describe each of these approaches. Are there any significant drawbacks of each in your opinion? | 6 Marks |
| 9 | Complete the Q6A survey for the module through webcourses  **COMPLETE** | 10 Marks |