



Academia de Studii Economice
Departamentul de Informatică și Cibernetică Economică

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Contest Topics for Associate Professor
Position 60, semester 2, year 2022-2023

Topics: Web Technologies

Web Technologies

1. Basic web concepts. The HTTP protocol
2. The architecture of the browser. Web addresses. HTML – a structure definition language
3. CSS as a presentation definition language. CSS selectors, specificity, the web page rendering mechanism, the CSS drawing flow, element positioning
4. Javascript as a multiparadigm language. Data types, control structures
5. Javascript - The objectual model. The functional model. Asynchronous programming
6. Server-side Javascript. REST services. REST API's
7. Storing data with ORM
8. Single page apps.
9. External service integration
10. Front-end component based frameworks
11. State management in a compoenent based application
12. Web application security

Bibliography

1. Matthew MacDonald, HTML5: The Missing Manual (Missing Manuals) Second Edition, O'Reilly Media, Statele Unite ale Americii, 2014
2. David Sawyer McFarland, CSS: The Missing Manual 4th Edition, O'Reilly Media, 2015
3. Joe Morgan, Simplifying JavaScript: Writing Modern JavaScript with ES5, ES6, and Beyond, Pragmatic Bookshelf, 2018
4. Ethan Brown, Web Development with Node and Express: Leveraging the JavaScript Stack 1st Edition, O'Reilly Media, 2014
5. <https://www.w3.org/>
6. <https://developer.mozilla.org/en-US/>
7. <https://developers.google.com/web/>
8. <http://expressjs.com/>
9. <http://docs.sequelizejs.com/>
10. Code versioning software. Web analysis software, <https://reactjs.org/>