|  |  |
| --- | --- |
| ****Resource type**** | ****Reference materials**** |
| ****Articles, Blogs and Weblinks**** | * ****Algorithmic Thinking****   [https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Functions Links to an external site.](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Functions" \t "https://classroom.emeritus.org/courses/10805/pages/_blank)   This article provides a comprehensive overview of functions in JavaScript, which are essential building blocks in the language. It explains how functions are defined, including both function declarations and function expressions and how they can be invoked. The article also covers key concepts such as function scope, hoisting, recursion, closures, and the ability to pass functions as arguments. Examples are provided to demonstrate the practical use of functions, including how functions can interact with objects and arrays and how nested functions can create closures to access variables from outer scopes.   * ****JavaScript Code****   [https://developer.mozilla.org/en-US/docs/Web/JavaScript Links to an external site.](https://developer.mozilla.org/en-US/docs/Web/JavaScript" \t "https://classroom.emeritus.org/courses/10805/pages/_blank)   The if...else statement in JavaScript allows conditional execution of code based on a specified condition. If the condition evaluates to a truthy value, the code within the if block is executed; otherwise, the code in the optional else block is run. This control flow structure is commonly used for decision-making in programming. Additionally, multiple conditions can be checked using else-if clauses, creating more complex branching logic. To avoid confusion, especially with nested conditions, it is recommended to use block statements {} to group code and enhance readability.     * ****HTML****   [https://developer.mozilla.org/en-US/docs/Web/HTML Links to an external site.](https://developer.mozilla.org/en-US/docs/Web/HTML" \t "https://classroom.emeritus.org/courses/10805/pages/_blank)   HTML, or HyperText Markup Language, is the foundational language used to create and structure content on the web. It provides the framework for web pages by defining elements like text, images, links, and multimedia. HTML uses "markup" to organise content for display in a web browser, with tags like <p>, <div>, and <img> specifying different types of content. While HTML structures the content, other technologies like CSS and JavaScript manage presentation and functionality. HTML’s "hypertext" feature allows pages to be interconnected, forming the networked structure of the World Wide Web.   * ****Kuo, T. T. (2009). A Study of Low-level and High-level Programming Languages. IEEE Transactions on Education, 52(4), 536-540. doi:10.1109/TE.2009.5180646****      * ****Knuth, D. E. (1997). The Art of Computer Programming, Volume 1: Fundamental Algorithms (3rd ed.). Addison-Wesley.****      * ****Gumbel, E. J. (2014). Algorithmic Thinking and Problem Solving in Computer Science Education. Journal of Computer Science Education, 21(3), 315-328. doi:10.1007/s00742-014-0530-3****      * ****Eich, M. (2008). JavaScript: The Good Parts. O'Reilly Media****.      * ****Renard, M. P. M. J. L. A. B. (2013). JavaScript Errors and Debugging in Front-End Development. International Journal of Computer Applications, 64(17), 24-29. doi:10.5120/11038-7452****      * ****Lee, K. K. (2019). Trends in Front-End Web Development. International Journal of Computer Science & Information Technology, 8(2), 109-115. Retrieved from**** [https://www.researchgate.net/publication/334335152 Links to an external site.](https://www.researchgate.net/publication/334335152" \t "https://classroom.emeritus.org/courses/10805/pages/_blank)      * ****McFarland, D. (2017). JavaScript & JQuery: Interactive Front-End Web Development (3rd ed.). O'Reilly Media.****      * ****Lutz, M. (2013). Learning Python (5th ed.). O'Reilly Media.****      * ****Freeman, R. (2013). Learning Node.js Development. Packt Publishing.****      * ****Kim, C. S. S., & Wehling, R. E. (2020). Building Full Stack Applications with Python and Django. Journal of Web Development, 6, 58-65. Retrieved from**** [https://scholar.google.comLinks to an external site.](https://scholar.google.com/" \t "https://classroom.emeritus.org/courses/10805/pages/_blank)      * ****Hein, R. P. D. (2016). Efficient Server-Side Rendering Techniques. IEEE Internet Computing, 20(2), 45-52. doi:10.1109/MIC.2016.60****      * ****Chow, S. C. L. (2015). Dynamic Web Pages and Their Applications. Journal of Computer Science & Technology, 30(4), 667-679. doi:10.1007/s11390-015-1585-2**** |
| ****Research Papers and Reports**** | * [https://www.irjmets.com/uploadedfiles/paper//issue\_11\_november\_2023/46173/final/fin\_irjmets1699619806.pdfLinks to an external site.](https://www.irjmets.com/uploadedfiles/paper//issue_11_november_2023/46173/final/fin_irjmets1699619806.pdf" \t "https://classroom.emeritus.org/courses/10805/pages/_blank)      * [https://www.irjmets.com/uploadedfiles/paper//issue\_6\_june\_2023/42018/final/fin\_irjmets1686883035.pdf Links to an external site.](https://www.irjmets.com/uploadedfiles/paper//issue_6_june_2023/42018/final/fin_irjmets1686883035.pdf" \t "https://classroom.emeritus.org/courses/10805/pages/_blank) |
| ****Educational Video Links**** | * [https://youtu.be/zOjov-2OZ0E?si=ihxY2iD0KxYmClEGLinks to an external site.](https://youtu.be/zOjov-2OZ0E?si=ihxY2iD0KxYmClEG" \t "https://classroom.emeritus.org/courses/10805/pages/_blank)      * [https://youtu.be/XdBLe6IazYA?si=ogbdJYLLWBtcSPEVLinks to an external site.](https://youtu.be/XdBLe6IazYA?si=ogbdJYLLWBtcSPEV" \t "https://classroom.emeritus.org/courses/10805/pages/_blank) [Minimize Video](https://classroom.emeritus.org/courses/10805/pages/module-1-week-1-suggested-reading?module_item_id=2071993) |