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| **SODV1201 – Intro to Web Programming**  **Assignment 1** |
| **Rubric**   * 100 points available. * There are 5 parts to the assignment, each part is worth 20 points. * Partial credit will be given. * Worth 15% of final grade. * Your code will be evaluated for correctness (does it achieve the task it is supposed to?) * Your code will be evaluated for hygiene (is it clear, well-commented, and easy to follow?) * Use best coding practices:   + Add intelligent comments that explain your logic and intention.   + Use sensible variable names that match the purpose of a variable.   + Use whitespace and indentation to make your code easy to read.   **Submission Instructions**   * All of your source files should logically named and organized in an appropriate file structure. * Make sure to properly reference any outside resources that you used when creating your website. * Place all source files into a zipped (compressed) folder, then upload it to D2L.   **Assignment Instructions**  Overview  Create a website with 4 pages: a homepage, a “Mark to Grade” page, a “Staff Information” page, and a “Temperature Converter” page. The website should be styled using CSS stylesheets. The 5 parts explained below give further instructions and requirements for each component of your website.  Part 1 (20 points) - Homepage  The website’s homepage should be a single page about yourself. The homepage should include the following elements:   * A header that includes a navigation bar. The navigation bar will be used to link to the other pages of your website. * A footer that includes your name, the current date and [standard copyright information](https://blog.hubspot.com/website/html-code-copyright). * A heading that includes your name. * 1 picture of yourself that should appear after 10 seconds. * 2 paragraphs of text on any topic(s) about yourself.   Part 2 (20 points) – “Mark to Grade” page  Add a page to your website titled “Mark to Grade” and create a link to it in the navigation bar of the homepage. The purpose of this page is to be a tool for converting a mark on a school assignment (i.e. the number of points received) to a corresponding letter grade. This page should have the following specifications:   * There is a single input element where a user can enter an assessment mark. * There is a “Submit” button. * Use validation controls to ensure that only numbers between 0 and 100 are allowed to be submitted. If an invalid mark is entered, display an informative message to the user. ***Let the user know exactly what the problem was, and what the expected input should be.*** * After a valid submission has been entered, display the appropriate letter grade:   + “Grade A” if the value is in the range of 85 – 100.   + “Grade B” if the value is in the range of 70 – 84.   + “Grade C” if the value is in the range of 60 – 69.   + “Grade D” if the value is in the range of 50 – 59.   + “Grade F” if the value is in the range of 0 – 49. * Hints:   + Use the global *parseInt* function to try and convert a string to a number.   + Use exception handling.   Part 3 (20 points) – “Staff Information” page  Add a page to your website titled “Staff Information” and create a link to it in the navigation bar of the homepage. The purpose of this page is to view and sort data about a hypothetical company’s staff members. This page should have the following specifications:   * Use the provided *staff\_data.txt* file as your sample data. ***You can restructure the data however you want.*** * Write a program to display the list of staff information on the page. ***Make sure to include each data point.*** * Add the ability to sort the list by Name (in ascending and descending order). * Add the ability to sort the list by Salary (in ascending and descending order). * Hints:   + Apply the concepts of loops, objects, arrays, and functions.   + You can use jQuery if you want (but not required).   Part 4 (20 points) – “Temperature Converter” page  Add a page to your website titled “Temperature Converter” and create a link to it in the navigation bar of the homepage. The purpose of this page is to be a tool for converting temperature formats. This page should have the following specifications:   * There is a single input element where a user can enter a temperature in degrees Fahrenheit. * There is a “Submit” button. * Use validation controls to ensure that only valid entries are allowed to be submitted. If an invalid value is entered, display an informative message to the user. ***Let the user know exactly what the problem was, and what the expected input should be.*** * After a valid submission has been entered, display the following on the page:   + The conversion of that temperature in degrees Celsius, and   + The conversion of that temperature in degrees Kelvin. * Hints:   + You need to write a program that converts Fahrenheit to Celsius and Kelvin. Research the basic formulas for each calculation.   + Use the concept of JavaScript named and anonymous functions.   + Use jQuery to access the DOM elements.   Part 5 (20 points) – CSS and file structure  Add CSS stylesheet(s) and apply styles to ***each page*** of your website. Create your own CSS files – do not embed styles from outside sources such as Bootstrap. The website should be attractive, easy to use, and reflect your personality.  Use an appropriate file structure to organize your website’s files. Separate content (HTML) from design (CSS) and from functionality (JavaScript). |
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