WEB-RELATED TECHNOLOGIES

04-17-2023 – Exam A  
Available Time: 2 hours

**RULES.**

For the exam, you can access only to:

localhost

<http://achecker.csr.unibo.it/checker/index.php> (to validate the accessibility)

<https://validator.w3.org/> (to validate the html code)

<https://www.w3schools.com/>

The access to other websites is disabled.

You also have available a local version of the w3schools in the remote disk where you have found the text of the exam.

As the text editor, you can choose among Visual Studio Code and Notepad++.

**IMPORTANT**:

**you can work locally and then upload in the remote folder ALL the files (not only the doc of the exam).**

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| ESERCIZIO N. 1 **(7 punti)** |

Write an HTML5 code that must be valid, well-formed, accessible, and semantically correct, to create a document with a first-level heading entitled “Components Selection” and a form divided in two parts:

* The first part, entitled “Personal information”, must allow the following inputs:
  + First Name, Last Name, Tax ID code, Birth Date.
* The second part, entitled “Articles Information”, must allow the following inputs:
  + Case type, to choose (radio button) between Full Tower, Mid Tower, Mini Tower e Mini ITX.
  + Cooler, which allows you to select liquid cooling.
  + CPU, to choose (select) between Intel Core i5-11400F, AMD Ryzen 7 5800X and AMD Ryzen 9 5950X.
  + A set of controls to specify the quantities of RAM, SSD and GPU.
* Buttons to Submit and Delete the form

The document must be HTML5 and accessible, on the basis of WCAG 2.0, level A (the validation of the code with only automatic tool for accessibility could be not enough for the document accessibility).

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| ESERCIZIO N. 2 **(6 punti)** |

**CSS**

Creating an external .css file for the HTML code in the N. 1 exercise, by taking into account what follows:

* All the fonts must be Arial, with 100% dimension.
* With screen widths less than 768px, the form occupies 100% of the page width, and has left and right side padding equal to 7%. The top padding is 5%. In large screen, the form occupies 80% and it is displayed in the center.
* The form has got a border, dashed style, red color, 4px width and border radius of 4px.
* The fieldset text has got red color, with a solid border, dark green color, 3px width.
* Fieldsets are shown one below the other in screens less than 768px wide while they are displayed side by side in larger screens, occupying about 50% of the available space.
* The label texts are red colored.
* In case of hover on radio type inputs, the background color becomes red, in case of hover on text type inputs, the background color becomes yellow while for the remaining inputs, in case of hover the background color becomes pink.
* Buttons have red background color and bold black text color. On hover, background and foreground color swap.

**NB: The use of media-queries is required.**

**NB2: It is not allowed to use ids and classes in selectors.**

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| ESERCIZIO N. 3 **(5 punti)** |

Describe what the media queries are and detail how their usage changes using mobile-first or desktop-first approaches.

Writing the solution in a .txt file.

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| ESERCIZIO N. 4 **(7 punti)** |

**Javascript**

**NB: It is advisable to do the Php exercise first in order to be able to test the Js solution**

Given the attached html file esercizio\_javascript.html, edit the file “soluzione.js” using javascript so that:

* By clicking on the “Leggi Personaggi” button you will have to:
  + Read the content of the input:
    - If it is a positive integer, pass it as the parameter id
    - Otherwise do not pass any parameters
  + Do a GET request to the Php solution
  + In case of success, visualize the data relative to the character in a table, considering that:
    - The name must be an heading cell
    - The table must be accessible
    - The table must have an additional column with a link. When the link is clicked, a POST request must be made to the PHP solution to delete the element passing its id as a parameter and the table will be updated, removing the row.
* **NB: YOU CAN NOT EDIT THE HTML FILE**

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| ESERCIZIO N. 5 **(7 punti)** |

**PHP**

Write valid PHP code (i.e. that runs correctly on Apache web server) that allows you to delete an Harry Potter character or to return the characters saved in the database (in the JSON format), based on the request type.

In this page, you will have to:

* Check if the http request is a POST or a GET.
* In case of a POST request:
  + Check if the parameter id exists and is not null.
  + Delete the character in the database
  + Return the a message
  + In case of error, return an error message.
* In case of a GET request:
  + Check if the id parameter is passed:
    - If no, select all the characters and return them in the JSON format (example in data.json).
    - Otherwise, if it is present, return the character with the same id passed in input. If the id does not exist, return an error message.
* **You must assume that the db exists (database name: db\_esami, username: root, pw: ) and that it is structured according to the instructions found in the "README\_DB\_ENG.txt" file.**
* **The PHP page must ALWAYS return a valid JSON**