National College of Ireland

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H8WBD - Web Design and Client-Side Scripting

Higher Diploma in Science in Computing, Year: 1
HDSDEV_JAN25, HDCSDEVINTJAN25I

Release date: 25 March 2025

Due date: 19 April 2025 @11.55pm

Lecturers: Eugene McLaughlin, Hamilton V. Niculescu

Final project brief
Type: Group project – 60%

Weight: This assignment will weigh 60% out of the overall module grade.

Submission extension: If you need to apply for an extension - https://nci360.ncirl.ie/

TURNITIN: All report submissions will be electronically screened for evidence of academic misconduct (i.e., plagiarism and collusion)

Use of AI in Teaching and Learning: Student Guide
https://libguides.ncirl.ie/useofaiinteachingandlearning/studentguide

IMPORTANT

It is your responsibility to avoid plagiarism. Please read the guidelines on academic honesty and integrity and how to avoid plagiarism made available by the NCI library - https://libguides.ncirl.ie/referencingandavoidingplagiarism

NOTE: You are not permitted to publish this assignment brief on any online platform. You are not permitted to publish/share your solution with others.

Learning outcomes

On successful completion of this assessment the learner will be able to:

LO2	Utilise a web scripting language to manipulate and visualise data
LO4	Select and implement appropriate deployment methodologies on a given project
LO5	Optimise written code in terms of both speed and for search engines

Assessment details

You are required to develop a website for a business of your choice. This assignment is a group-based project, and each group will have 2-3 self-assigned participants.

Characteristics of the website itself:

- It should contain a **minimum of 4 web pages for groups of 2, or minimum 6 pages for groups of 3**
- All pages styled and controlled by **one external CSS** file only
- Clearly defined, consistent, navigation system and form
- Form entries should be validated
- Some HTML content to be manipulated using JavaScript
- Bootstrap should be used
- jQuery may be used

The website should:

- Be deployed
- Contain validated and optimised HTML and CSS syntax
- Implement Search Engine Optimisation practices

Deliverables

Each group should submit a single ZIP file (500MB max.) containing all the elements below (one submission only per group):

1. The files making up **your website** (HTML, CSS, JS, images, sound, etc.), properly organised in a folder structure
2. **A written report** – template available to download from Moodle. Please use it!
3. **A video presentation** – max. 10 minutes long. Should highlight the following sections of your website:
    - Responsiveness of website
    - Use of framework
    - Form validation
    - JavaScript implementation
    - Development
    - Also, each team member to mention their contribution

Note: if the video presentation file size is too big, making the ZIP file larger than 500MB, upload the video to your OneDrive account, share it, and paste the link into a text file to be included with your submission. Make sure that you share/make the link available to anyone with the link, not just to your lecturer!

Everyone must fill and submit the Peer Evaluation Form (template is available on Moodle)!

Requirements

You have been assigned as web developer and you need to state the client requirements. In your design (wireframes & mood board) show how you incorporated the client requirements. Demonstrate the following:

- Header with website title, logo and tagline.
- Consistent navigation and design across all pages of the website.
- At least 1 (or more) use of a background image.
- Gallery of 4 or more images. When the user clicks an image, JavaScript to be used to show some text relating to that image.
- Form with at least 4 fields of different types such as text, numeric, etc. Form to include a checkbox / radio / dropdown field. Include JavaScript validation.
- All pages must have an example of JavaScript to demonstrate manipulation of the DOM.
- A JavaScript minigame for visitors to play that includes an element of randomisation.
- All pages are responsive.
- There is only 1 external CSS file for all pages.
- Use of folders and file paths.
- Show the use of 2-3 Google fonts throughout site.

Website to include the following:

- Files must be formatted correctly and commented.
- Comments to show who did what work on the website.

The written report should include the following:

- The requirements - as if gathered from the client.
- The sitemap, wireframe & mood board for your website based on the requirements.
- All team members to be listed in your report.
- Mention what each team member did in the project.
- Every team member must do at least 2 webpages.
- The website should be tested using the HTML validator and then optimised (requires deployment). Results of pre and post-tests should be captured and documented in your report.
- Images should be optimised for the website. Document this process in your report.
- A link to deployed website.
- A link to a video presentation (max. 10 minutes long). You must ensure that anyone can view it.
- Wordcount to be between 800-1000 words.

Please note! All materials that are NOT your own MUST BE ROYALTY FREE (images, videos, music, etc.), and MUST be properly referenced in the Bibliography section at the end of your report. Any code snippets that are borrowed from external sources must be also properly identified and referenced (by way of comment lines). Students who fail to observe these rules risk to get a 0 (zero) mark and be referred to the NCI Academic Integrity.

Video Presentation

Students must submit a video demonstrating their website and addressing each section of the marking scheme. A video presentation should last no more than 10 minutes and will consist of a screen capture and voiceover of the website and the results of the testing. Students should add any other details they feel are relevant.

The marking scheme is included in the next two pages!

Marking rubric

	80+	70-79	60-69	50-59	40-49	0-39
Responsive (15%)	Website is responsive with no visual errors using a responsive framework with extensive customisation.	Website is responsive with no visual errors using a responsive framework with some customisation.	Website is responsive with no visual errors using a responsive framework with no customisation.	Website is responsive but with some visual errors.	Website is responsive but with many visual errors.	Website is not responsive.
Use of framework (jQuery, Bootstrap etc) (10%)	Framework implementation is extensively customised and adds major value to the site	Framework implementation is customised and adds major value to the site	Framework implementation is customised and adds some value to the site	Framework implementation is simple but adds some value to the site	Framework implementation is simple and adds no value to the site	No framework used
Form validation (10%)	Form with validation using JavaScript and HTML5. Visually appealing and clear to users. Unsuccessful validations should be thoroughly explained to users	Form with validation using JavaScript and HTML5 which is visually appealing	Form with some basic validation using JavaScript and HTML5.	Form with some basic validation using HTML 5.	Form with little or no validation.	No form.
JavaScript implementation (25%)	Extensive functionality outside of the scope of what was covered in class. Visually appealing and easy to use.	Functionality outside of the scope of what was covered in class. Visually appealing and easy to use.	Some basic functionality or without errors.	Some basic functionality or functionality with errors.	Minimal JavaScript.	No JavaScript.
Deployment (10%)	Website is deployed online with excellent file structure and pathnames.	Website is deployed online with good file structure and pathnames.	Website is deployed online however has a poor file structure OR pathnames.	Website is deployed online however has a poor file structure AND pathnames.	Website is deployed online however has some deployment related errors (404, images not showing etc).	Website is not deployed online.

Testing and optimisation (10%)	Website tested with the HTML and CSS validator with excellent result. Optimised via Google Page Speed rankings – excellent result.	Website tested with the HTML and CSS validator with good result. Optimised via Google Page Speed rankings – good result.	Website tested with the HTML and CSS validator with adequate result. Optimised via Google Page Speed rankings – adequate result.	Website tested with the HTML and CSS validator with poor result. Optimised via Google Page Speed rankings – poor result.	Website shows little evidence of testing or optimisation.	Website shows no evidence of testing or optimisation.
Planning, formatting, wireframes, commenting of code (10%)	Excellent evidence of planning, requirements, wireframing, formatting and commenting of code.	Good evidence of planning, requirements, wireframing, formatting and commenting of code.	evidence of planning, requirements, wireframing, formatting and commenting of code.	Adequate evidence of planning, requirements, wireframing, formatting and commenting of code.	Very poor effort of planning, minimal formatting and commenting.	None.
Effort (10%)	This final section is based on the examiner's discretion. Learners who score well here will have gone beyond the scope of the project document, will discuss testing and design decisions, and will have presented their video overview excellently.					