

## CS3 - Web Development

### Computer Science 3 Web Development

The course is designed to employ output-based learning and focuses on the process of web development using HTML, CSS, and Scripting languages. The programming component of this course exposes the students to writing code done in languages that can be executed in the browser. The course also aims to motivate the students to collaborate and participate in various social issues, and learn the value of teamwork to accomplish various projects.

#### A. Topic Outline (not necessarily discussed in the order below)

##### Part I: JavaScript

- Array and Object
- HTML DOM and Finding HTML Elements
- HTML Form and Form Elements
- localStorage
- Simulation of Full CRUD (Create/Read/Update and Deleting) Objects

##### Part II: HTML

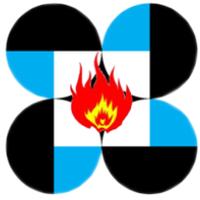
- HTML forms and form elements

##### Part III: CSS

- position, z-index
- transform and transition
- animation

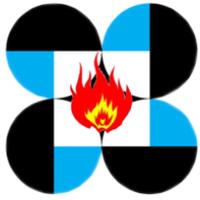
#### B. Grading System

Formative Assessment (Quizzes, Graded Exercises)	30%
Alternative Assessments LT - 20% PT - 20% Proposal - 10% Updated Project - 20%	70%
Total	100%



### CS3 - Web Development

4th Qtr Weekly View of the Course			
Topic	Learning Outcomes	Sub-Topics	Submissions / Exams (through KHub)
Week 1 (Feb 26 - 27 )			Q1 Wrap up 3rd Qtr
Week 2 (Mar 2-6 )  JS Objects	Manipulate JS data Objects and Save in the localStorage	JS Objects (defining, placing content, and deleting)  Saving and Retrieving from localStorage	<b>FA</b>  Seatwork: Review of Using a JSObject  1st Graded Exercise on Objects and localStorage to create and retrieve data
Week 3 (Mar 9-13)  Note: G9 Scho Comm 12:30 to 3:30PM	Implement a Full CRUD process on a JS Object	Defining function/routine for Create / Read / Update and Delete	<b>FA:</b>  2nd Graded Exercise on implementing Full CRUD with JS Object and localStorage.  <b>AA: Project Proposal to implement Full CRUD on the website</b>
Week 4 Mar 16-17  Mar 18 (Card Giving)  Mar 19 - Wed Sched  Mar 20 - Holiday	Summative Exam		AA: Practical Exam  AA: Project Making



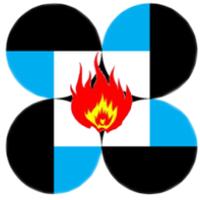
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Week 5 (Mar 23-29)	Use CSS Position for website layout	CSS Position and z-index	<b>FA:</b>  <b>3rd Graded Exercise on CSS Position and x-index</b>
Week 6 (Mar 31-Apr 1) Online classes			<b>FA:</b>  4th Graded Exercise on implementation of transform and transition with position and z-index  <b>Asynchronous Online Project Making</b>
Week 7  Apr 6 and 7  Apr 9 (Holiday)  April 10 online	Implement transform and transition in your website	Transform properties and transition	<b>FA:</b>  5th Graded Exercise on animation
Week 8 (Apr 13-17)	Summative Exam		AA: Final Project Submission
Week 9	Summative Exam		<b>Long Test</b>

### Project Requirements

The project for this quarter to be submitted is the final modification of your website that will implement a Full CRUD process on the saved data. The updated project proposal will be a redesign of some of the pages which will show that data is managed by incorporating updating and deleting of information.

**A. Project Proposal: 20pts.**



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The project proposal shall contain the following:

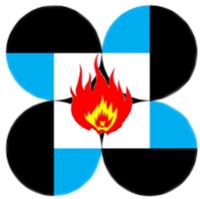
1. A design and narrative (purpose and how it is to be used) on how the data saved in the localStorage be updated and removed
2. An updated **wireframes** on how #1 will be implemented on existing pages or new pages..
3. The project proposal containing above information should become part of the **readme.md** inside a Github project repository maintained by members of the pair placed inside a clear separate section of the document. A section heading title should be “ **FINAL MODIFICATION PROPOSAL**”
4. **The Github project repository link should be submitted in KHub to give your teacher access to your files**



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### Rubrics for grading (Total points: 20):

Criteria	5	4	3	1-2	0
Description	Clear and Comprehensive Update on the purpose and use of the full CRUD process		Clear description of the process but not complete on how CRUD is implemented.		No Change in the Descriptio
Wireframe X 2	Wireframes are updated or created to mirror the descriptions on how CRUD is implemented		Wireframes are updated or created but not completely clear on how CRUD is to be implemented fully.		No updated or created wireframe
Using Github with readme.md	The update on the proposal is inside the <a href="#">readme.md</a> of github		The proposal is in github but not in readme.md		The proposal is not inside github.



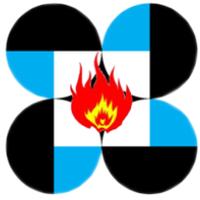
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### B. Final Project Submission (55pts)

- The final project should fully implement the design of the website including that of an HTML form and a simple use of the data collected through it and the implementation of full CRUD.

### Rubrics for grading (Total points: 55pts):

Criteria	5	4	3	1-2	0
# of pages	There are a total of completed 5-8 webpages and with clear components (header, navigation, body, footer with reference lists)	There is a missing 1 or 2 webpages	Missing 3 or 4 webpages	Missing more than 4 webpages.	No webpages
Navigation	All pages have working links, and all pages are accessible from anywhere on the website.	All pages have working links, but content pages are only accessible from the home page, or a bit of a challenge to move around the website.	Only one link is not working.	More than one link is not working.	Links are not working.
Use of HTML form	A form is implemented in the website with correct components and its use makes sense to the website		A form is implemented in the website with correct components but its use does NOT make sense to the website		No HTML form implemented
Aesthetic Appeal	The work is visually striking, harmonious, and polished. It demonstrates originality, clarity, and strong emotional resonance while fitting its intended purpose and audience seamlessly.	The work is attractive and generally cohesive, with noticeable creativity and clarity. Minor inconsistencies or small flaws may be present, but overall appeal remains strong.	The work shows some aesthetic value but suffers from imbalance, limited originality, or weak emotional impact. Execution feels inconsistent, and the appeal is moderate at best.	The work lacks visual appeal, feels chaotic or generic, and fails to connect with its audience. Errors, mismatches, or unclear design choices dominate, making it ineffective.	No attempt had been made to put design on the website



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Website Responsiveness	The website adapts seamlessly across all devices and screen sizes. Layouts, images, and interactive elements adjust fluidly without distortion. Navigation remains intuitive, load times are optimized, and the user experience is consistently smooth.	The website is generally responsive, working well on most devices. Minor issues may occur (e.g., slight misalignment, occasional scaling problems), but usability and readability remain strong overall.	The website shows partial responsiveness. Some elements adjust correctly, but others break, overlap, or require excessive scrolling. User experience is inconsistent across devices.	The website fails to adapt to different devices or screen sizes. Layouts are distorted, navigation is difficult, and usability is significantly compromised.	No attempt had been made to address this criterion
Use of localStorage X 2	Appropriate Data and data structure is saved in the localStorage and are successfully retrieved		Data is saved in the localStorage but contains information that is not appropriate to its intended use or not successfully retrieved.		No data is saved in the localStorage
Appropriate use of the data saved in the localStorage With full CRUD implementation	The data saved in the localStorage is processed and is used appropriately to the topic or function of the websites additional/modified webpages or to the entire website and with CRUD implementation		The data saved in the localStorage is processed by implementing CRUD on it but has some issues.		No processing of data saved in the localStorage
				Total	55pts.