

ASSIGNMENT

**LEVEL 4**

**COMP40004 : Web Development & Operating Systems 1**

Individual Assessment

Batch Code CF23A1COM

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**INSTRUCTION TO CANDIDATES**

1. **Late submission will be awarded zero (0) unless extenuating circumstances (EC) are upheld.**
2. **Cases of plagiarism will be penalized.**
3. **The assignment should be submitted as softcopy via LMS**
4. **All evidences related to the sprint implementation in group assignment must be show cased in the final documentation.**

**Learning Report: Developing Web Pages Using HTML and CSS for Wireframing and Responsive Design**

OBJECTIVE:

The goal of this project was to use HTML and CSS to construct a responsive website that would work well on mobile and desktop displays and offer the best possible user experience.

**Key Learnings:**

**HTML Structure:**

gained expertise in content organization using appropriate HTML structure, which includes headings, sections, and semantic tags.

**CSS Styling:**

Gained expertise in CSS styling, encompassing fonts, colors, margins, padding, and other stylistic components, to personalize the look of the website.

**Media Queries:**

Media queries were used to guarantee responsiveness and enable style modification for various screen sizes.

**Flexbox and Grid Layouts:**

Used Grid and Flexbox layouts to produce adaptable, eye-catching designs that work on a range of devices.

**Viewport Meta Tag:**

Discovered the importance of the HTML viewport meta tag for managing mobile device display and optimizing the website for various screen sizes.

**Responsive Images:**

Employed responsive picture techniques to guarantee appropriate scaling according to the screen size of the device without sacrificing image quality.

**Mobile-First Design:**

Adopted a mobile-first design philosophy, giving smaller screens priority for important content and functionality to improve user experience.

In conclusion, the project gave participants a thorough understanding of web development concepts, ranging from the fundamentals of HTML and CSS to sophisticated responsive design strategies. The foundation this knowledge provides for building contemporary, user-friendly websites is robust, and it highlights the significance of continuous education in the dynamic world of web development.

**Problems Faced:**

* **The Complexity of Responsive Design:**

The design had to be adjusted for different screen sizes, especially when switching from desktop to mobile. This meant that content priority and layout changes needed to be carefully considered.

* **Media Query Adjustment:**

Iterative modifications were necessary to create appropriate media queries in order to guarantee a smooth transition between various breakpoints and screen sizes.

* **Image Optimization:**

Experimenting with various approaches to strike a balance between file size and visual appeal was necessary to optimize photos for responsiveness without compromising quality.

* Implementing accessibility features was difficult, particularly in terms of making the website useful for people with a range of needs and guaranteeing screen reader compatibility.

Pressure to Continue Learning: Keeping up with changing web technology and design trends made it difficult to find time for ongoing education while working on projects.

Time management: To guarantee project completion within the allotted time, balancing feature installation, issue fixes, and learning opportunities required good time management.

The difficulties faced during the creation of the responsive website proved to be invaluable teaching moments, fostering the growth of critical thinking abilities and a more thorough comprehension of the complexities involved in designing websites that are both flexible and easy to use. The process of working through these issues iteratively improved the overall expertise in web development techniques.

**Techniques Used:**

Complexity of Responsive Design:

embraced a mobile-first design approach, emphasizing functionality and important content for smaller displays. created fluid designs that seamlessly moved across various breakpoints by utilizing Grid and Flexbox layouts, guaranteeing the best possible user experience on desktop and mobile devices.

Media Query Adjustment:

tested and improved media queries iteratively in order to create smooth transitions between various screen sizes. To maintain a consistent design across a range of devices, important breakpoints were prioritized and styles were gradually modified.

Mobile-First Curve of Learning:

Accepted real-world examples, online guides, and documentation help shorten the learning curve for mobile-first design concepts. streamlined the process of changing design elements for smaller screens by utilizing responsive design frameworks.

Image Enhancement:

investigated a range of image optimization strategies, such as CSS background images, picture elements, and responsive image tags, to strike a compromise between efficiency and aesthetic appeal. reduced file sizes without sacrificing quality by using picture compression techniques.

Viewport Difficulties:

I around with various viewport meta tag configurations, taking device-specific needs into account. carried out extensive testing on a range of devices to guarantee the best possible display and responsiveness.

Implementing Accessibility:

Adhered to recommended principles for accessibility, such as attention management, ARIA roles, and semantic HTML. carried out user testing to pinpoint and resolve particular accessibility issues with people who depend on assistive technologies.

Git Workflow Arrangement:

To reduce disagreements, a clear branching approach was put into place and open communication was maintained with contributors. pulled and merged changes frequently, quickly settling disagreements to maintain a collaborative workflow.

Constant Pressure to Learn:

Schedule a certain period of time for ongoing education, and make sure to participate in web development forums, read pertinent newsletters, and go over documentation on a regular basis. set priorities for learning objectives and integrated fresh information into the ongoing project.

Effective Time Management:

embraced the ideas of agile development, dividing work into doable sprints and establishing reasonable deadlines. evaluated the project's progress on a regular basis and changed priorities and schedules as necessary to guarantee that it was finished on schedule.

**WIREFRAMES FOR DESKTOP SCREEN**

A screenshot of a computer screen

Description automatically generated

A black and white screen shot of a computer screen

Description automatically generated

A black and white screen shot of a computer screen

Description automatically generated

A black and white image of a rectangular object

Description automatically generated

A screenshot of a computer screen

Description automatically generated

A black and white diagram

Description automatically generated

A diagram of a construction plan

Description automatically generated with medium confidence

WIREFRAMES FOR MOBILE SCREENS

A diagram of a grid

Description automatically generated with medium confidenceA paper with lines and lines

Description automatically generated with medium confidenceA close-up of a paper

Description automatically generatedA close-up of a diagram

Description automatically generatedA black and white image of a rectangular object

Description automatically generated with medium confidenceA screenshot of a computer screen

Description automatically generatedA black and white lines

Description automatically generated with medium confidence

LINK TO WEB APPLICATION AND FOLDER: