**COIS-MDST-2830H-A: Multimedia and Design**

**Assignment 2** **Due Date:** February 16th, 2025, 11:59 PM

**Weightage:** 25%

**Group Work:** 3-4 students per group

**Assignment Overview**

For this assignment, students will apply their understanding from **Assignment 1** and the topics covered in class up to **February 16th**. This includes:

* **Understanding UI Elements**
* **Front-End Web Development**
* **UI Design Tools for Applications**

Students will work in groups of **3-4 members** to design and develop a **fully functional web page** using HTML, CSS, and basic JavaScript. The web page must showcase a theme of their choice while incorporating **design principles, usability, and functionality**. The assignment will also include **critical thinking, research components, and an online video presentation** to reinforce the theoretical aspects discussed in class.

**Same groups as Assignment 1.**

**Part 1: Web Page Development (Hands-on Component) - 50%**

**Objective:**

Each group must create a visually appealing and functional web page that includes:

1. **Title and Navigation Bar** - A clear title and an intuitive navigation system.
2. **Typography and Fonts** - Use at least **two different fonts** to enhance readability and aesthetics.
3. **Images and Videos** - Integrate **at least one image and one embedded video** relevant to the webpage theme.
4. **User Interface Elements** - Include buttons, forms, or interactive elements to improve usability.
5. **Color Scheme and Layout** - Use a well-structured layout with appropriate colors and contrasts.
6. **Responsiveness** - Ensure the web page adapts to different screen sizes (desktop and mobile).
7. **Accessibility Features** - Implement at least **two accessibility features**, such as alt text for images, readable font sizes, or keyboard navigation.
8. **Basic JavaScript** - Implement **one interactive feature** (e.g., a button that changes text color, a dynamic form validation, or an alert box).

**Submission Guidelines:**

* Submit all **HTML, CSS, and JavaScript files** in a compressed ZIP folder.
* Host the website using **GitHub Pages or another free hosting service** and provide the link in the submission document.
* Include a **detailed documentation file** explaining:
  + The **purpose** of the webpage.
  + The **UI/UX choices** made and how they enhance user experience.
  + The role of each group member in the project.
  + The challenges encountered and how they were resolved.

**Part 2: Research & Critical Thinking (30%)**

**Objective:**

Each group must provide a **well-researched, structured report** addressing the following critical thinking questions:

1. **Design and Usability:**
   * What are the **key UI elements** used in the web page, and why were they chosen?
   * How does the design **improve user experience** based on usability principles?
2. **Front-End Development:**
   * What challenges did the group encounter while coding, and how were they resolved?
   * What improvements could be made with more advanced front-end technologies?
3. **UI Design Tools and Frameworks:**
   * What UI design tool (e.g., Figma, Adobe XD) was used for mockups, and why?
   * How does using UI design tools help streamline web development?
4. **Security and Privacy Considerations:**
   * What security measures were taken to **protect user data** (e.g., form validation)?
   * How can front-end developers ensure **privacy and accessibility compliance**?
5. **Accessibility and Responsiveness:**
   * How did the team ensure that the webpage is accessible to a diverse group of users?
   * Why is responsive design crucial in modern web development?

**Submission Guidelines:**

* Submit a **PDF document** (minimum **5 pages**, maximum **10 pages**) with **proper citations** for any external resources used.
* The report should include an **introduction, methodology, analysis, answers to the questions, and a conclusion** summarizing key learnings.

**Part 3: Online Video Presentation (20%)**

**Objective:**

Each group will **record and submit a 10-12 minute video presentation** explaining their web page project in depth. The presentation should be structured as follows:

1. **Introduction** (1-2 minutes)
   * Brief overview of the project and its objectives.
   * Why the team chose this particular theme for the webpage.
2. **Webpage Demonstration** (3-4 minutes)
   * Walkthrough of the website’s design and functionality.
   * Highlight important UI elements and their role in user experience.
3. **Research Discussion** (3-4 minutes)
   * Summary of the critical thinking questions and research findings.
   * Explanation of how design principles and accessibility guidelines were implemented.
4. **Challenges and Problem Solving** (2-3 minutes)
   * Discuss technical and design challenges encountered.
   * Explain how the team resolved these challenges.
5. **Conclusion & Team Contributions** (1-2 minutes)
   * Summary of key takeaways.
   * Brief statement on each team member’s contribution.

Note: Students will be marked individually for the presentation. Combined group limit may not exceed 12 minutes.

**Submission Guidelines:**

* Submit the video as a **YouTube (unlisted) or Google Drive link**.
* Ensure **good audio and visual quality** for clarity.
* Use **visual aids, such as slides, screen recordings, and demonstrations**, to enhance understanding.
* Keep the presentation **engaging, structured, and well-paced**.
* Assign **different sections of the presentation to different team members** to ensure equal participation.

**Evaluation Criteria**

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| **Component** | **Criteria** | **Marks** |
| Web Page Development (50%) | Clear structure, navigation, fonts, images, videos, interactive elements, responsiveness, and accessibility | 30 |
|  | Implementation of HTML, CSS, JavaScript for functionality | 15 |
|  | Hosting and submission quality | 5 |
| Research & Critical Thinking (30%) | Thoughtful answers with depth and critical analysis | 20 |
|  | Proper structure, clarity, and citations | 10 |
| Online Video Presentation (20%) | Demonstration of project, UI/UX explanation, research discussion, and team contribution | 10 |
|  | Engaging and structured video with clear audio-visual quality | 10 |
| **Total Marks** |  | **100** |

**Instructor Contact Information**

**Instructor:** Priyanka Sharma

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**Office Hours:** Thursdays, 8:30 AM - 10:30 AM via Zoom

If you have any questions regarding the assignment, please reach out via email or attend office hours.

Good luck, and happy designing!