**Major Project: Advanced Multimedia & UI/UX Design Assessment**

**Course:** COIS-MDST-2830H-A: Multimedia and Design (2025WI)

**Instructor:** Priyanka Sharma

**Due Date:** March 23, 2025 , 11:59 pm as per the course outline

The due date has been extended up to 72 hours with the submissions accepted without late penalty until 26th March 2025, 11:59 pm. After this date, the late penalties will be applied.

**Weightage:** 30%

**Group Work:** Groups have been assigned on Blackboard

**Project Overview:**

For this major project, student groups will collaboratively design and develop an interactive **multimedia web application** that demonstrates expertise in UI/UX principles, accessibility, front-end web development, security considerations, and game design elements. The project should serve a **real-world purpose** (such as an educational platform, interactive storytelling site, portfolio showcase, or a small-scale game) and incorporate key elements from the course.

Each group must **apply design principles** and create a **functional prototype** using front-end development tools. The project should include an interactive user interface, demonstrate **accessibility compliance**, and showcase effective **user experience (UX) design**.

**Project Deliverables:**

Each group is required to submit the following components:

1. **Project Proposal** 
   * **Title & Objective:** Define the project’s purpose and target audience.
   * **Technology Stack:** List tools and languages (HTML, CSS, JavaScript, UX/UI tools like Figma or Adobe XD, etc.).
   * **User Flow:** Describe navigation and expected user interactions.
2. **Project Progress Report** 
   * **Wireframes & Mockups** of UI.
   * **User Personas & Accessibility Strategy.**
   * **Prototype Walkthrough (Initial Screens Developed).**
3. **Final Submission** 
   * **Fully functional interactive multimedia application.**
   * **Documentation (README) including project features, tools, and user guide.**
   * **Presentation Video (5-7 minutes) demonstrating the application.**
   * **Team Contribution Report:** Each member submits a brief self-reflection of their contribution.
4. **Final In-Class Presentation & Testing** 
   * Live **user testing and evaluation** by peers.
   * Instructor & peer **feedback on UX, accessibility, and functionality**.

**Project Requirements & Expectations**

Your web application must include:

**1. Functionality & User Experience (UX)**

* **Seamless navigation:** Users must easily find content.
* **Responsive Design:** The application should be fully functional on desktops, tablets, and mobile devices.
* **Intuitive UI elements** with proper spacing, contrast, and readable fonts.

**2. Privacy, Security & Functionality**

* **Data Protection:** Any form data must be securely handled (no direct storage of sensitive info).
* **Cookie & Privacy Notice:** Include a basic privacy policy page.
* **Form Validation & Security:** Implement front-end form validation and security features to prevent basic attacks (e.g., input sanitization).

**3. Understanding UI Elements & Accessibility**

* **Interactive buttons, menus, and animations** enhancing UX.
* **Keyboard Navigation & Screen Reader Support.**
* **Compliance with WCAG Accessibility Guidelines.**

**4. Front-End Web Development Implementation**

* HTML5, CSS3, and JavaScript must be used effectively.
* JavaScript interactivity such as **event listeners, animations, and API integrations**.
* **External Libraries (e.g., Bootstrap, jQuery, GSAP for animations) are allowed.**

**5. UI Design Tools for Applications**

* **Wireframes must be created using Figma, Adobe XD, or Balsamiq** before development.
* Include a **color palette, typography choices, and design documentation.**

**6. Accessibility Principles & Design for Different Users**

* Color-blind mode and **alternative text (alt tags) for images.**
* High contrast mode and scalable fonts for users with visual impairments.

**7. User Experience Testing & Evaluation**

* Conduct a **Usability Test (5 external users)** and collect feedback.
* Implement at least **two improvements based on feedback.**

**8. Game Design Component (Choose One Option)**

* **Option A:** Integrate **a simple interactive mini-game** (e.g., quiz, drag-and-drop UI, interactive animation).
* **Option B:** Implement **a reward-based progression system** for users navigating content.

**Grading Rubric**

| **Category** | **Criteria** | **Points** |
| --- | --- | --- |
| **Functionality & UX** | Seamless navigation, responsiveness, intuitive UI | 20 |
| **Privacy & Security** | Secure form handling, privacy notice, security best practices | 10 |
| **UI Elements & Accessibility** | Compliance with accessibility standards, proper UI components | 15 |
| **Front-End Web Development** | Effective use of HTML, CSS, JavaScript, libraries | 20 |
| **UI Design Tools** | Wireframes, color palettes, typography documentation | 10 |
| **User Experience Testing** | Testing conducted, feedback applied | 10 |
| **Game Design Component** | Integrated mini-game or reward system | 10 |
| **Presentation & Documentation** | ReadMe, Presentation Video, Team Report | 5 |
| **Total** |  | **100** |
|  | | |

**Submission Instructions:**

1. Upload your **final project files** (.html, .css, .js, wireframes, documentation) to **Blackboard**.
2. Submit the **presentation video link** (YouTube/Google Drive) along with your project.
3. Each team member must complete the **Team Contribution Report**.
4. Attend the **Final Presentation & Testing Session** in Week 12.

Though this is a group submission, each student will be graded according to their individual contribution.

**Late Submissions: For any late submission, a penalty of 10% per business day will be applied. After 10 business days, submission will not be accepted.**

**Instructor Notes:**

* Late submissions **beyond March 26** will face a penalty of **10% per day**.
* Groups must **self-organize** work tasks. Peer evaluations will be considered in grading.
* If you require assistance, **book office hours** or consult the BlackBoard discussion board.