User Experience and the Web

Module Code: IS51041A

Interactive Website (IS51041A^2023-24^3)
Coursework (60%)

Team Formation: Teams of 3-4 students each [I will assist team allocation by end of Week 2]

Total Marks: 60

Hand-in Date: Friday, 15th December, 5:00 pm

Project Description: The final interactive website student submission should reflect the knowledge and skills gained throughout the course. The website should be designed for a specific user group. The list of user groups is provided for ready reference.

Here's a breakdown of what your final interactive website should include based on the course content:

1. *Introduction to Web Development and UX:*
   - Your website should demonstrate an understanding of web development principles and the importance of user-centered design (UX).
   - Consider having a clear introduction section or homepage that explains the purpose and objectives of your website.
2. *HTML Basics:*
   - Apply the fundamentals of HTML to structure your web content.
   - Use appropriate HTML tags for headings, paragraphs, lists, and links.
   - Implement the Document Object Model (DOM) correctly to organize your content.
3. *CSS Basics:*
   - Apply CSS styling to your website to enhance its visual appeal.
   - Use CSS selectors and properties to style text, backgrounds, and elements.
   - Ensure your CSS classes and IDs are used effectively.
4. *Working with Images and Understanding Colour:*
   - Incorporate images into your website and choose appropriate image formats.
   - Include alt tags for accessibility.
   - Apply an understanding of colour representations in your website's design.
5. *Working with Typography and Simple Menus:*
   - Pay attention to typography in your design, including font types, styling, kerning, and leading.
   - Create and style menus for navigation, considering various types of menus (e.g., navigation bars, drop-down menus).
6. *Wireframing and Prototyping:*
   - Consider using wireframing and prototyping techniques to plan and design your web interface.
   - Utilize wireframing tools and software if applicable.

7. *Layout with CSS Grid Layout and Implementation:*
   - Use CSS Grid Layout for your web page design if appropriate.
   - Apply CSS Grid properties and syntax effectively to create responsive layouts.
8. *Enhancing Web Accessibility and Usability:*
   - Ensure your website adheres to web accessibility guidelines (e.g., WCAG).
   - Validate website accessibility and usability through manual testing and user testing.

Submission:

   - **Step 1:** Use GitHub Pages to host your interactive website for live checking
   - **Step 2:** Two-Page summary on VLE with the GitHub Pages URL

Here's a **step-by-step guide on how to set up and use GitHub Pages** for hosting your interactive website:

1. *Create a GitHub Repository:*
   If you haven't already, create a GitHub repository for your website project. Make sure to include all the necessary files, including HTML, CSS, JavaScript, and any other assets.
2. *Commit and Push Your Code:*
   Commit and push your website project files to your GitHub repository. Ensure that the repository contains everything needed for your website to run correctly.
3. *Enable GitHub Pages:*
   In your GitHub repository, navigate to the "Settings" tab.
4. *Scroll Down to GitHub Pages:*
   Scroll down to the "GitHub Pages" section in the settings.
5. *Choose a Source Branch:*
   Under the "Source" section, select the branch you want to use for GitHub Pages. You can choose the "main" branch or another branch where your website code resides.
6. *Save the Settings:*
   After selecting the source branch, click the "Save" button. GitHub Pages will generate a URL for your website based on your username and repository name.
7. *Access Your Website:*
   Once GitHub Pages is enabled, you'll see a message indicating that your site is published. It will provide a URL where your website is live. It typically looks like this: https://username.github.io/repository-name/.
8. *Test Your Website:*
   Click on the provided URL to access your live website. Test all the interactive features to ensure they work as expected.
9. *Share the GitHub Pages URL:*
   Share the GitHub Pages URL for live checking and assessment.
10. *Updates and Changes:*
    Any updates or changes you make to your GitHub repository will automatically reflect on your GitHub Pages-hosted website. Simply commit and push your changes to update the live site.

Summary document for a GitHub-hosted interactive website should include:

1. *Title and Project Details:* Begin with the title of your project. Include any relevant project or assignment details, such as the course name, course code, and instructor's name.
2. *Website URL:* Provide the GitHub Pages URL where your interactive website is hosted.
3. *Introduction:* Start with a brief introduction that outlines the objectives and goals of your interactive website.
4. *Key Features:* List and describe the primary features and functionalities of your website. Highlight any unique or innovative aspects of your project. Include details about the interactive elements, such as forms, animations, or user interfaces.
5. *Technologies Used:* Mention the technologies and tools you employed to develop the website. This could include programming languages (HTML, CSS, JavaScript), libraries, frameworks etc.
6. *Lessons Learned:* Reflect on what you learned while working on this project. This could include insights into web development, user experience, or project management.
7. *Future Enhancements:* Suggest potential improvements or additional features you would like to implement in the future to enhance your website.

Evaluation Rubrics

Peer Evaluation: (Total Marks: 5)

Each team member is peer evaluated by the other three for contributions.

Project Implementation (Total Marks: 55)

i. ***Understanding of web development principles and UX (5 marks)***
ii. ***HTML Basics (5 marks)***
   - Correct use of HTML tags for content structure: 2 marks
   - Proper implementation of the Document Object Model (DOM): 3 marks
iii. ***CSS Basics (5 marks)***
   - Effective use of CSS for styling: 2 marks
   - Proper use of CSS selectors and properties: 2 marks
   - Effective use of CSS classes and IDs: 1 mark
iv. ***Working with Images and Understanding Colour (5 marks)***
   - Proper incorporation of images and image formats: 2 marks
   - Inclusion of alt tags for accessibility: 2 marks
   - Appropriate use of colour representations: 1 mark
v. ***Working with Typography and Simple Menus (5 marks)***
   - Attention to typography in design: 2 marks
   - Creation and styling of menus for navigation: 3 marks
vi. ***Wireframing and Prototyping (5 marks)***
   - Effective use of wireframing and prototyping techniques: 3 marks
   - Utilization of wireframing tools and software (if applicable): 2 marks
vii. ***Layout with CSS Grid Layout and Implementation (5 marks)***
   - Effective use of CSS Grid Layout for design: 3 marks
   - Proper application of CSS Grid properties and syntax for responsive layouts: 2 marks

viii. ***Enhancing Web Accessibility and Usability (5 marks)***
- Adherence to web accessibility guidelines (e.g., WCAG): 3 marks
- Validation of website accessibility and usability through testing: 2 marks

ix. ***Submission (Total Marks: 15)***
- Submission of interactive website for live checking: 5 marks
- Summary document: 10 marks

Total Marks: 60

User Groups for Website

The user experience (UX) and website will differ for each of the target groups due to the varied needs, preferences, and expectations of each audience. Here a comprehensive list of expected website features and UX elements is provide for 20 user groups. You may choose to target any one user group.

1. **Parents with young children**:
   a) Features
   - **Simplicity and clarity**: Parents often seek straightforward information without any complications, especially when browsing with potential distractions.
   - **Interactive elements for kids**: If targeting kids, interactive animations or educational games can be included.
   - **Safety and privacy**: Features to ensure that the content is child-safe and that personal information is protected.

   b) UX Elements
   - **Typography:** Fun, larger fonts that are easy to read.
   - **Colours:** Bright, playful palettes.
   - **Image Quality:** High-resolution images, with safety filters if for children's view.
   - **Accessibility:** Voice-over features for stories or information; easy navigation buttons.

2. **Travelers**:
   a) Features
   - **Mobile optimization**: Travelers often use mobile devices to access information on-the-go.
   - **Interactive maps**: Essential for travellers looking for locations or planning routes.
   - **Language options**: Consideration for international travellers.

   b) UX Elements
   - **Typography:** Clear, legible fonts for quick info scanning.
   - **Colours:** Neutral with pops of colour representing cultural elements or destination themes.
   - **Image Quality:** High-resolution imagery showcasing destinations.
   - **Accessibility:** Language translation features; mobile-friendly design.

3. **Pet owners**:
   a) Features
   - **Informative and advisory content**: Pet care tips, product recommendations, etc.

- **Community features**: Forums or message boards for shared experiences and advice.
- **Search functionality**: For quick answers about pet health or behaviour.

b) UX Elements
- **Typography:** Friendly, welcoming fonts.
- **Colours:** Warm, neutral colours reflecting pets' calming nature.
- **Image Quality:** Crisp images showcasing pets and products.
- **Accessibility:** Voice search for quick inquiries; clear labels for sections.

4. **Freelancers/Remote workers**:
   a) Features
   - **Organizational tools**: Task lists, calendars, or project management features.
   - **Resource hubs**: Tutorials, courses, or articles on best practices.
   - **Networking features**: Platforms to connect with other freelancers or job listings.

   b) UX Elements
   - **Typography:** Modern, clean fonts for professional appeal.
   - **Colours:** Muted, productivity-inducing palettes.
   - **Image Quality:** Clear, professional images or icons.
   - **Accessibility:** Dark mode to reduce eye strain; keyboard shortcuts.

5. **Food enthusiasts**:
   a) Features
   - **Searchable recipes**: Filter by ingredients, diet, cooking time, etc.
   - **High-quality imagery**: Food appeals visually, so pictures are essential.
   - **Interactive features**: Rating systems, comments, or recipe scaling based on serving sizes.

   b) UX Elements
   - **Typography:** Elegant, readable fonts.
   - **Colours:** Warm, appetizing colour schemes.
   - **Image Quality:** High-resolution images showcasing dishes in detail.
   - **Accessibility:** Voice commands for recipe navigation; text alternatives for ingredients.

6. **Fitness enthusiasts**:
   a) Features
   - **Personalization**: Custom workout or diet plans.
   - **Tracking features**: For workouts, weight, diet, etc.
   - **Tutorial content**: Video demonstrations for exercises.

   b) UX Elements
   - **Typography:** Bold, motivating fonts.
   - **Colours:** Energizing colours or muted tones reflecting gym aesthetics.
   - **Image Quality:** High-res images showing exercises correctly.
   - **Accessibility:** Closed captions for video workouts; adjustable text sizes.

7. **Artists**:
   a) *Features*
   - **Portfolio features**: Showcase their artwork.
   - **Community interaction**: Forums, collaborations, or feedback sections.
   - **Educational content**: Tutorials, resources, and materials reviews.

   b) *UX Elements*
   - **Typography:** Creative, unique fonts that match the art style.
   - **Colours:** Palettes reflecting various art mediums and moods.
   - **Image Quality:** High-quality gallery images.
   - **Accessibility:** Screen reader descriptions for art pieces; high contrast for text.

8. **Book lovers**:
   a) *Features*
   - **Search and categorization**: By genre, author, ratings, etc.
   - **Interactive reading lists**: Ability to add, check off, or review books.
   - **Community reviews and discussions**: Forums or comment sections for shared insights.

   b) *UX Elements*
   - **Typography:** Serif fonts reflecting printed book aesthetic.
   - **Colours:** Neutral, calming colours.
   - **Image Quality:** Clear images of book covers.
   - **Accessibility:** Adjustable text sizes; text-to-speech for book summaries.

9. **People with specific dietary needs**:
   a) *Features*
   - **Clear labeling**: Easily identifiable information for recipes or products (e.g., "gluten-free").
   - **Filtering options**: Search based on specific diets or allergens.
   - **Community support**: Forums or Q&A sections for shared experiences.

   b) *UX Elements*
   - **Typography:** Clear, easily distinguishable fonts for ingredient lists.
   - **Colours:** Fresh, appetizing colours reflecting health.
   - **Image Quality:** Crisp images showcasing dishes and ingredients.
   - **Accessibility:** Allergen filter options; text alternatives for recipe steps.

10. **Gardeners**:
    a) *Features*
    - **Seasonal guides**: Content adjusted based on time of year or planting season.
    - **Personalized reminders**: Notification features for watering, planting, or harvesting.
    - **Community tips**: Sharing experiences or advice on plant care.

    b) *UX Elements*
    - **Typography:** Earthy, organic fonts.
    - **Colours:** Green and earth-toned palettes.

- **Image Quality:** Vibrant images showing plants in detail.
- **Accessibility:** Voice search for plant care tips; clear navigation.

11. Senior citizens:
a) Features
- **Simplicity and clarity**: Larger fonts, straightforward navigation, and clear calls to action.
- **Accessibility features**: Voice commands, screen readers, or easy-to-see colour schemes.
- **Help and tutorials**: Step-by-step guides or videos to explain functionalities.

b) UX Elements
- **Typography:** Larger, clear fonts.
- **Colours:** Contrasting colours for better visibility.
- **Image Quality:** Straightforward imagery without excessive detail.
- **Accessibility:** Voice commands; easy-to-click buttons; screen magnification.

12. Students:
a) Features
- **Organizational tools**: Planners, calendars, and note-taking capabilities.
- **Resource hubs**: Study materials, references, or tutorial videos.
- **Community platforms**: Forums or group chats for class discussions or group projects.

b) UX Elements
- **Typography:** Legible, academic-feeling fonts.
- **Colours:** Engaging but not distracting colours.
- **Image Quality:** Relevant academic imagery or icons.
- **Accessibility:** Focus modes; annotations for important info.

13. DIY enthusiasts:
a) Features
- **Tutorial content**: Step-by-step guides, videos, or photo sequences.
- **Resource lists**: Materials required for projects.
- **Community sharing**: Platforms to showcase their projects and get feedback.

b) UX Elements
- **Typography:** Clear, instructional fonts.
- **Colours:** Creative but easy-on-eyes colours.
- **Image Quality:** Step-by-step images in high resolution.
- **Accessibility:** Voice instructions; text alternatives for each step.

14. Musicians and music lovers:
a) Features
- **Streaming capabilities**: Play music samples or full tracks.
- **Search functionalities**: By genre, mood, artist, etc.
- **Community features**: Forums for discussing music or even collaborative creation platforms.

b) UX Elements
- **Typography:** Dynamic, rhythmic fonts.
- **Colours:** Rich, deep palettes reflecting genres.
- **Image Quality:** Album covers or artist imagery in high quality.
- **Accessibility:** Lyrics display; volume control.

15. Sports enthusiasts:
a) Features
- **Live updates**: Real-time scores or updates on games.
- **Team profiles**: Information about players, match schedules, etc.
- **Interactive features**: Fantasy leagues, predictions, or quizzes.

b) UX Elements
- **Typography:** Bold, impactful fonts.
- **Colours:** Team colours or neutral palettes for multiple sports.
- **Image Quality:** Action-packed, high-res imagery.
- **Accessibility:** Live commentary; clear score displays.

16. Fashion enthusiasts:
a) Features
- **High-quality imagery**: Showcase fashion pieces in detail.
- **Trend highlights**: Features on current trends or upcoming ones.
- **Community platforms**: Forums for discussing fashion or swap platforms.

b) UX Elements
- **Typography:** Trendy, chic fonts.
- **Colours:** Seasonal palettes; neutrals for text.
- **Image Quality:** Detailed imagery showcasing outfits.
- **Accessibility:** Alt text for fashion items; easy navigation.

17. History buffs:
a) Features
- **Chronological content**: Timelines or date filters for events.
- **Interactive features**: Quizzes, reenactments, or virtual tours.
- **Discussion platforms**: Forums or chat rooms for deeper dives into topics.

b) UX Elements
- **Typography:** Classic, serif fonts reflecting historical documents.
- **Colours:** Aged, muted palettes.
- **Image Quality:** Archival quality or artifact imagery.
- **Accessibility:** Time period filters; voice narration for events.

18. Vehicle enthusiasts:
a) Features
- **Detailed specifications**: In-depth info on vehicles' features.
- **Comparison tools**: Compare different vehicle models or features.
- **Community features**: Forums for discussing vehicles, sharing experiences, or trading.

b) UX Elements
- **Typography:** Sleek, modern fonts.
- **Colours:** Metallic or brand-specific palettes.
- **Image Quality:** High-definition vehicle images.
- **Accessibility:** Specification filters; voice commands for search.

19. Tech enthusiasts:
a) Features
- **Up-to-date content**: Latest tech news, product releases, or updates.
- **Review platforms**: User reviews, expert insights, or comparison videos.
- **Discussion hubs**: Forums or chats about tech trends, product hacks, or DIY tech projects.

b) UX Elements
- **Typography**: Modern, tech-savvy fonts.
- **Colours**: Futuristic palettes; high contrast for clarity.
- **Image Quality**: Clear product shots or infographics.
- **Accessibility**: Tech specs display; keyboard navigation.

20. Gamers:
a) Features
- **Interactive features**: Game demos, leaderboards, or challenges.
- **Community platforms**: Forums for game strategies, reviews, or co-op gaming opportunities.
- **Customizable profiles**: Avatars, game achievements, or favourite game lists.

b) UX Elements
- **Typography**: Dynamic, game-themed fonts.
- **Colours**: Game-inspired palettes or darker themes for immersion.
- **Image Quality**: High-res game graphics or character renders.
- **Accessibility**: Subtitles; controller-compatible navigation.

For any user group, considering accessibility, typography, colours, and image quality is essential to ensure the product or website caters to the users' specific needs, preferences, and challenges.