COM S/SE 319: Construction of User Interfaces
Fall 2024

Midterm Project

[Total Points: 100]

Assignment published: Tuesday, October 1st, 2024
Assignment Due: Sunday, October 13th, 2024, 11:59PM

1. Overview

This Midterm Project serves as an opportunity for students to apply the knowledge they've accumulated in SE/ComS319, extending up to and including Week 7.

The website's content is entirely driven by the students' preferences and interests. The Midterm project encompasses a multi-page website featuring images and text tailored to the students' chosen themes and information needs.

Students are tasked with crafting a website that not only functions flawlessly but also boasts an aesthetically pleasing design.

The Midterm project will incorporate various technologies covered in the course up to Week 07, (for more specific requirements, please refer to the "Requirements" section).

While the inclusion of more advanced technologies is encouraged, it's essential to exercise caution. If the integration of advanced technologies hinders the project's evaluation by the TA, the TA reserves the right to determine whether any penalties should be imposed during the review process.

2.- Functionality

A. **Seamless Navigation**: The website should consist of multiple interconnected web pages, ensuring smooth and intuitive transitions between them. Users should effortlessly move between pages without encountering any usability issues.

B. **Information-Centric**: The primary purpose of the web pages is to effectively convey information. Users should find it easy to access and absorb the content presented without the need for extensive data input.

C. **Responsive Functionality**: All navigational elements, including buttons and links, must be fully functional and responsive to user interactions. This ensures a user-friendly and efficient browsing experience.

D. **Aesthetic Considerations**: While functionality is a priority, aesthetics also play a crucial role. The project encourages students to exercise their creative freedom in design, allowing for individual artistic expression. There is no rigid definition of "good" or "bad" design, fostering creativity and personal style.

3.- Requirements

- The minimum technologies that the project must include are:
  - HTML
  - CSS
  - Javascript (including evidence of using DOM, Arrow function, Callback function, Fetch or Sync/Await)
  - JSON files

- And the optional technologies reviewed in class which can be included are :
  - Bootstrap
  - If you decide not to use Bootstrap, then you must ensure that you develop web pages that are well presented in the aesthetic sense, otherwise points will be deducted for this concept.

- The website must contain at least 3 web pages containing images and text. The source of the content of these web pages is one or multiple Json files.
  - Do not insert the images and text “by hand” into the HTML code.

- The main web page must be named **index.html**. The names for the other web pages are for the convenience of the students.

- The Javascript file must be in the same folder “**./**” together **index.html** with name **index.js**. There can be more than one Javascript files which names are according to the preferences of the students.

- Every webpage must contain **at least three images and their corresponding three texts**.
  - Do not confuse that because you have to add pairs image-text of data that web page must have to be a catalog. There are many web pages including images and text for many different purposes.

- The name of the JSON file must be **data.json**. If an image is included in the JSON file, you also must include some additional information, “attributes”, for every image and use them when construct the web page. E.g., if you are using the image of a building, you can add additional attributes such as, *City*, *State* and *Architect, Building Year, etc*. The addition of more attributes per image is not penalized.

- The required third web page contains the information of the team members:
  - Name of the course: SE/ComS319 Construction of User Interfaces, Fall 2024.
  - Date.
  - Student name, ISU email.
  - This page does not require images. However, including this page is expected to have effort in creativity, design, style, and colors. It is optional to add a photo of each student or an avatar representing the photo of the student. Please do not include photos of artists or cartoon pictures of known personages from tv or social media.
  - The text can be written directly in the HTML file. E.g., the information from students is not required to be managed by JavaScript reading a JSON file.

- The website must have a navigation bar.
  - The navigation bar must exist in every web page of the site.

Structure of files and folders :

A. Image Repository: The images can be stored in a dedicated folder named "images" in the same folder "**./**" together **index.html**. Or the images also can be in remote storage too, such as github and using their URL to create the web page.
   - Because in this project we want to exercise the use a JSON file, you can indicate in the JSON the local and/or remote location of images and texts.
   - When creating the web pages, make sure the image size and pixel resolution are appropriate to create the web page. If the image is forced in a box or container such a "Card" and the image is distorted the TA can deduct some points.

B. CSS Styles: If your project includes CSS styles, they should be located within a folder named "styles".

C. Root Files: The core files of the website, namely index.html (HTML), index.js (JavaScript), and data.json (JSON), should reside at the root level of the website folder. In other words, these files are located directly within the root path, designated as "**./**".

D. Multiple Files: In case your project necessitates multiple JSON or JavaScript files, these can also be placed in the root folder, and students have the flexibility to name them as per their convenience.

Clarification:

The webpages are constructed using HTML as a foundation, and students will have the autonomy to specify which images and text elements will be dynamically managed, i.e., published, through JavaScript code (**at least three images and their corresponding three texts**).

Nevertheless, the web page can also include additional images inserted "by hand" into the HTML and static text embedded within the HTML structure, enhancing the overall design of the page. For instance, if students find it necessary to include elements like a company logo, bullet points, a webpage header, footer, emojis, or any other images and text to enhance the webpage's aesthetics and usability, they are encouraged to do so without facing any penalties.

To differentiate these additional images that are not managed by JavaScript, students should store them in a dedicated folder labeled **"./myotherimages"** .

Github - submission and review process :

A. **Canvas Submission**: The project will undergo a review process within the Canvas learning management system. Both the Teaching Assistant (TA) and the instructor will download all project files from Canvas to execute them locally for evaluation.

B. **GitHub Publication**: In addition to the Canvas submission, it is mandatory to publish your website on GitHub. This means that alongside submitting all project files on Canvas, you are also required to make the entire project, including code and associated assets, accessible on GitHub as a web page.

   - **When submitting to Canvas**: One file with the name **github.txt** located in the root of the website will contain the URL of the website in GitHub.

   - It is important to distinguish the difference between web page and repository in terms of GitHub, the URL contained in this file is the URL of the web page. If there is any doubt about this point, please contact the TA or Instructor.

"Please be proactive in managing your time to ensure the timely completion of the project.

The Midterm Project and its associated requirements have been made available with two weeks of advance notice. Consequently, there will be no possibility of extending the submission deadline."

4.- What to submit :

- Include all html files.
- Include all JSON files.
- Include all Javascript files.
- Include the github.txt file.
- Include the folders with all images files.
- Include the folders with CSS files (if any)
- Compress the files to a .zip file and rename it "**Midterm_TEAMNUMBER.zip**".
- Submit via Canvas the compressed file (.zip).

*Where TEAMNUMBER is the number in the column Team in Canvas (Google drive) where is the list of teams and team members. That will allow the TA and instructor to review and assign the same grade to the team members.

*It is required submit ONLY ONE compressed file (.zip) per Team.

5. Evaluation Criteria :

This Assignment has a total value of 100 points.

Late submission will deduct 5 points per day late.

- Is the project structured with one HTML file named index.html and one JavaScript file named index.js located in the appropriate folder? _____ / 5
- Does the project utilize JavaScript to dynamically manage images and their corresponding text, generating the web pages as required? _____ / 30
- Is there a data.json file present that contains the main data for images and texts, used appropriately across the website? _____ / 30
- Are there at least two web pages featuring dynamically generated images with corresponding text, as specified in the project requirements? _____ / 15
- Is there a dedicated page with the required student information (e.g., student name, course information, ISU email), formatted properly? _____ / 5
- Does the website include a functional navigation bar that works correctly across all pages? _____ / 5
- Is the project published on GitHub, and is the URL for the live webpage included in a github.txt file as required? _____ / 10

Total points : 100