

COM S/SE 319: Construction of User Interfaces
Fall 2023

Phase 2 of the Final Project

[Total Points: 100]

[Relative Percentage of Final Grade : 5%]

Assignment publishing: Sunday November 12, 2023

Assignment Due: Tuesday, **November 28, 2023**, 11:59PM

(10 days from the date of publication, not counting thanksgiving days)

Phase 2 – Final Project Requirements.

1. Overview

Phase 2 of the Final Project aims to apply the knowledge acquired in SE/ComS 319, Construction of User Interfaces, until Week 14. The project reflects the use of modern web development technologies commonly utilized by industry leaders.

While we have set minimum functional and technological requirements, the Final Project allows for flexibility in solving problems tailored to each student's preferences.

Key Points:

- Although we set the minimum requirements of functionality and used technologies, the Final Project is a final product that solves a problematic of the preferences of each student.
- The Final Project Phase 2 is a Single-page website of perfect functionality and good aesthetic appearance. That is, the software must not fail, it must solve a fictitious or real situation or problem in a web environment and shows computer web pages with a professional appearance. Professional appearance can be interpreted from different points of view according to different students. For example, the appearance and design of a financial application does not necessarily reflect the seriousness and formality of a banking institution, but it will be penalized if the appearance and design reflect very little effort and work.
- It encompasses technologies covered in the course until Week 14, with room for advanced procedures.
The addition of more advanced procedures and technologies used to solve technical problems won't be penalized. However, if the inclusion of more advanced procedures and technologies interferes with the review of the project at the time it is reviewed by the TA, the TA can decide whether to penalize the project or not.

Weight: 5% (5 points) of the final grade.

2. Functionality

Although the Final Project must incorporate 100% of the functionality proposed for the final semester project, Phase 2 represents a minimized version of the final project, requiring fully functional software development based on the final project plan.

Functional Requirements:

- Utilize a single-page web design with multiple modules as needed for different functionalities.

The website is made up of different web views using the well-known concept of Single-web page. That is, the web site is developed in a main file using Javascript and multiple modules as necessary, which are imported to integrate multiple functionalities. Once committed to this requirement, is permitted to add more HTML files to solve more functionalities or problems.

- Ensure smooth navigation between views using mechanisms demonstrated in class.

The user will navigate from one view to another without any difficulty or problem. The application will provide the appropriate navigation using the mechanisms or technologies shown in class, such as show/hide views or routing.

- Strive for a visually pleasing web appearance; creativity is encouraged, but an apparent lack of effort will be penalized.

It is expected to have a good aesthetic appearance in the web pages. However, it is not specificized how good or bad is a good or bad design. We will give freedom to the creativity and skill of the students in this regard. However as mentioned in the Overview section, the excess of simplicity, the lack of effort to improve the appearance, will be penalized at the reviewer's discretion.

3.- Requirements

Phase 2 requirements : Software components only:

Mandatory Technologies:

- HTML
- CSS
- JavaScript (including DOM)
- REACT
- NodeJS
- Express
- Unstructured (e.g., Mongo) or structured (e.g., MySQL).

Optional Technologies:

- Bootstrap
- Tailwind
- JSON

Key Software Elements :

- Use of hooks: useState and/or useEffect minimum
- Fetch or Axios to access external files and/or databases.
- Use of sync/await where necessary.
- It must include at least the GET request method:
 - Get : to consult / show all or any item in particular from the database
- Optional request methods Post, Put, and Delete for creating, updating, or removing items:
 - Post : to create a new product or service in the database
 - Put : to update any information in the database
 - Delete : to remove a specific product or service from the database
- Use JSON data in external files for non-main data, but primary data should reside in the database.

App Views:

- The App must contain at least 2 views for products or services.
- An additional view is required for student information, including course details:
 - Name of the course: SE/ComS319 Construction of User Interfaces, Fall 2023
 - Date
 - Complete name of students and ISU email
 - Complete name of professor and email : Dr. Abraham N. Aldaco Gastelum
 - This page does not require images; however, team member photos will be appreciated.
- If developed for a real company or institution, include a view for company information.
 - The App must contain one view with the information of the Company if the project was developed for a real Company or Institution.

File and Folder Structure :

- Create a **"teamXX_final"** folder, including all application components.
- Subdivide into "frontend" and "backend" folders for REACT and NodeJS development.
- One folder **frontend**:
All REACT development must be inside this folder.
All REACT and front-end configuration files must be inside this folder.
- One folder **backend**:
All NODEJS + Express development must be inside this folder.
All Database files must be inside this folder.

All image files, text files, JSON files must be inside this folder.
All NodeJS, Express, Database configuration files must be inside this folder.

4.- What to submit

- Remove modules from React and NodeJS
- Include all the files in “teamXX_final” folder except the “MODULES” folders.
- Construct a ZIP file for submission.

*Replace XX in teamXX_final with your team number. 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. Team members are grouped in Canvas.

5.- Rubric

The Rubric to grade this assignment is as follows:

This Assignment has a total value of 100 points.

There is no late submission deduction this time.

If the work is submitted late has a penalty of 100%

- Is Phase2 developed using REACT ? _____ / 20
- Is Phase2 developed using Nodejs and Express ? _____ / 20
- Is Phase2 developed using Databases ? _____ / 20
- Is Phase2 implementing GET ? _____ / 20
- Is Phase2 implementing Hooks, Fetch/Axios ? _____ / 10
- Is Phase2 a Single-web page application ? _____ / 10

Total points : 100