# Course Project: Shared Workspace Web App

[Coworking](https://en.wikipedia.org/wiki/Coworking) is a work style where different individuals or teams share a working environment. If you are a self-employed or a working-from-home professional, you would love to have the option to rent a meeting room, or a desk in an office equipped with high-speed internet, printers, copiers, stationaries, and office kitchen. As there is an increase in the number of coworkers and the number of sharable workspaces, we are looking to develop an application to connect both parties. The objective is very similar to how Uber connects riders with drivers and Airbnb connects tenants with landlords.

You will work on this project as group of 3 or 4 members to develop this application. For this project, you must use incorporate all concepts and frameworks we cover in class. You will receive grades for your project with clear presenation of how your web application works and running demo and question and answer session as needed.

1. **Phase 1**: Design and implement a standard web application for the given shared workspace project using HTML, CSS, JS. The web application wireframe should have landing page, header and footer. For more functionalities refer to the user stories to figure out what pages do you need and what controls should each page has. Whenever you want to store any information you can use array or JS object at this level. When you start working on phase two you will be working with JSON file system as data storage. This phase of your project should be submitted by end of February 2023

**The following is a guideline :**

**User Story 1:** Add a web page with controls to take the user information from keyboard and an Add button. On click on the Add button, make a call to the web service that adds users to the user object or array.

**User Stories 2 and 3:** similarly add web pages for the owner user to specify the property and workspace information and click a button to call the corresponding web service/ functionalities that adds them to the property/workspace object or array dataset.

**User Stories 4 to 8:**

Add a web page with controls to search and display the properties and their workspaces. Add a login page. If the login is successful, based on the user’s role, modify the previous page as follows:

* For the owner user, filter the page to show only the owner’s properties and workspaces. Also, show controls that the user can use to sort, update and delete any of the items.
* For the coworker user, show controls for the user to search and to sort properties using different criteria.

All pages should make requests to your locally defined array object or JS Object application. On phase two it should interact with a backend file system or a database system

1. **Phase 2**:

At this phase of your project you need to start using Node server

* Design and implement an API(backend application) to fetch data from a the shared workspace file system.
* Your server implementation should use Node.js and Express. If you would like to use a different framework, you need a permission from the instructor in advance.
* Use the correct HTTP method (GET, POST, PUT, or DELETE).
* For each web service/functionality in your API, return a flag that indicates the success or failure of the web request (error handling). In case of any failure, add a detailed error message.
* Your API should be testable from browser or postman

## Minimum Viable Product (MVP)

The MVP is the smallest conceivable list of features that fulfill the primary business goal of the software product. One way to summarize a feature is a user story-- a short sentence describing the feature from the perspective of the user. User stories frequently take the form: “As a <type of user>, I can <take some action> so I can <some reason>.” You can start with the following user stories as a backlog for your MVP.

**From your web application a user can do the following activities(Given user stories)**

1. As a user, I can sign up for an account and provide my information (name, phone, and email). I can choose my role as an owner or a coworker.
2. As an owner, I can list a property with its address, neighborhood, square feet, whether it has a parking garage, and whether it is reachable by public transportation.
3. As an owner, I can select one of my properties and list workspaces for rent. Workspaces could be meeting rooms, private office rooms, or desks in an open work area. For each workspace, I can specify how many individuals it can seat, whether smoking is allowed or not, availability date, lease term (day, week, or month), and price.
4. As an owner, I can modify the data for any of my properties or any of my workspaces.
5. As an owner, I can delist any of my properties or any of my workspaces.
6. As a coworker, I can search for workspaces by address, neighborhood, square feet, with/without parking, with/without public transportation, number of individuals it can seat, with/without smoking, availability date, lease term, or price.
7. As a coworker, I can select a workspace and view its details.
8. As a coworker, I can get the contact information of a workspace’s owner.

## Bonus Features

You will receive a full mark if the features of your MVP are fully-working. You learn a new concept with every feature you add. Adding the following features is highly recommended.

1. As an owner, I can add photos to any of my properties or workspaces.
2. As a coworker, I can rate a workspace on a one-to-five-scale. The workspace’s listing should include the average rating.
3. As an owner, I can rate a coworker on a one-to-five-scale. The coworker’s profile should include the average rating.
4. As a coworker, I can sort the workspaces’ search-results by the average ratings, availability date, or price.
5. As a coworker, I can write a review about a workspace. The workspace’s listing should include these reviews.

## Submission Requirements

Zip your project files and upload the compressed file on D2L. There will be a presentation in class at the end of the semester.

This project worth **30%** of your total mark.

The following rubric will be used to mark your submissions.

**Rubrics summary**

1. Your project will be assessed for both frontend and backend functionality
2. Well formatted web application on browser, descriptive and appropriate message during user interaction, input validation check, page responsiveness to different device size, dynamic content display features etc ( this needs to be done without using any backend feature).

You will do live presentation or may prepare short video of your project demo and upload it on D2l dropbox (please get direction from you instructor), communicate with your instructor if you have question or concern

1. Web server configuration file, working API’s. APIs include GET, PUT, POST, DELETE to operate and provide access to the dataset you will store in file system or database server about users, admin, and workspaces, security measures, default API’s that handle different situations and display appropriate message for users, error handling methods etc.
2. Active participation in the team