IST 363

# Project 3

## Objective

Students will work individually to build a fully functioning single-page application (SPA) using React. This project is designed to introduce and strengthen skills in building responsive, multi-page web apps with reusable components, state management, and modern development best practices. Your app must include multiple views, and store and display data meaningfully. You will submit key project artifacts for feedback and development support in the next two weeks.

## Your Task

**Choose Your Project**

You will select a project idea and build a React SPA that includes multiple pages and interactive functionality. You are encouraged to pick a topic that interests you, as you will be working on this throughout the rest of the course.

**Example project ideas:**

* Fitness Activity Application – Allows users to login and record fitness activities and nutrition data. (integrate with a calorie api)
* Recipe App – Allows users to post and review recipes. Integrate with nutrition or recipe APIs.
* Book Database – Users can log books they have read, write reviews, and create reading lists.
* Expenses Tracker – Allows users to log expenses, assign categories or tags, list and filter expenses, and view data visualizations (monthly/yearly). Users can add categories, expenses, etc.

**Your app must:**

* Be fully responsive and visually appealing.
* Include multiple pages/views.
* Use conditional rendering for navigation and state.
* Follow best practices with modular components and no global variables.
* Store data properly

**Project Proposal**

Due: Tuesday, 4/15

We will work on your project idea in class. Submit a one-page proposal to Blackboard outlining your app concept. Think big—there are tons of tools out there and we'll work together to help you succeed.

Your proposal must include:

* A clear description of what your app will do.
* A list of any data you will need to store.

For example: "My project will need a book object to store data about titles, authors, genres, and user reviews."

* A list of the core functionality you expect to build.

**Wireframe**

Workday: Tuesday and Thursday, 4/17

Create a wireframe for your application showing the layout and flow of the app. This can be done using Mockflow, Figma, or a similar tool.

If you're new to wireframing, don’t worry! A short tutorial will be provided during class. You'll have class time to work on it.

**Static Site**

Due: Monday, 4/21 11:59 PM

Build a static HTML version of your application—no JavaScript or React yet, just HTML and CSS. It should represent all the screens of your app. Use a CSS framework like Bootstrap, Tailwind, SASS, or your Project 1 framework. This step will help you visualize the site structure and layout before adding functionality.

**Project Check-Ins**

4/22 and 4/24

Short 1:1 meetings will be held during lab. We will review your static site and React progress, and talk through any blockers. This is your chance to get direct help and feedback. Come prepared with questions and a working copy of your project.

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| --- | --- | --- | --- | --- | --- | --- |
| Alba | Thursday | 11:00 AM |  | Kevin | Tuesday | 11:00 AM |
| Alexandra | Thursday | 11:06 AM |  | Liam | Tuesday | 11:06 AM |
| Bera | Thursday | 11:12 AM |  | Lucas | Tuesday | 11:12 AM |
| Cameron | Thursday | 11:18 AM |  | Madison | Tuesday | 11:18 AM |
| Dara | Thursday | 11:24 AM |  | Maria | Tuesday | 11:24 AM |
| Dean | Thursday | 11:30 AM |  | Mary Anne | Tuesday | 11:30 AM |
| Eleni | Thursday | 11:36 AM |  | Matthew | Tuesday | 11:36 AM |
| Elijah | Thursday | 11:42 AM |  | Megan | Tuesday | 11:42 AM |
| Elizabeth | Thursday | 11:48 AM |  | Quinn | Tuesday | 11:48 AM |
| Harvey | Thursday | 11:54 AM |  | Rowan | Tuesday | 11:54 AM |
| Jaspreet | Thursday | 12:00 PM |  | Telly | Tuesday | 12:00 PM |
| Jiachen | Thursday | 12:06 PM |  | Yujia | Tuesday | 12:06 PM |
| Kavias | Thursday | 12:12 PM |  | Yuntian | Tuesday | 12:12 PM |

**Hosting Your App**

You must host your finished app. You can use GitHub Pages or Firebase—Firebase is highly recommended for React projects.

Here is a tutorial to help you get started with Firebase:https://www.freecodecamp.org/news/how-to-deploy-a-react-app-with-firebase/

**Project Expectations**

This project should be significantly more advanced than your past lab assignments. Your application should:

* Be a fully functioning multi-page React app
* Include working features, not just placeholders
* Use conditional rendering to navigation “pages” in the SPA
* Be responsive and look good on various screen sizes.
* Follow React best practices: modular components, reusable code, and no global variables.

## What to Submit

A link to your live hosted application.

A zipped folder or GitHub repo link to your project files.

Your initial proposal and wireframe.

## Evaluation

Your project will be evaluated based on:

* Depth and originality of the project idea.
* Quality of proposal and wireframe.
* Functional and responsive static site.
* Progress shown through check-ins.
* Code quality: React best practices, modularity, conditional rendering.
* Final product usability, completeness, and design polish.
* Hosting deployment on Firebase or Github.

Let’s build something amazing.