CS 473/673
Project Team 3
10/31/2023

Software Design Document

Scope:

Our software team is developing a professional career-oriented networking site. This project is being managed through an agile development process, where changes are made as needed, and the specific design elements may be changed over time. This document will describe the overall design and architecture we plan to implement in designing our site.

Architectural Design

Our software design will utilize a client-server-database architecture. This architecture serves our design as all aspects of the client-server-database are necessary for creating and hosting a web-page. Our user's information and data, such as job history and connections are stored in a database. This database is accessed by the application layer, which then communicates with the presentation layer to present the data and application in a user-friendly manner.

Presentation layer: React

Application layer:

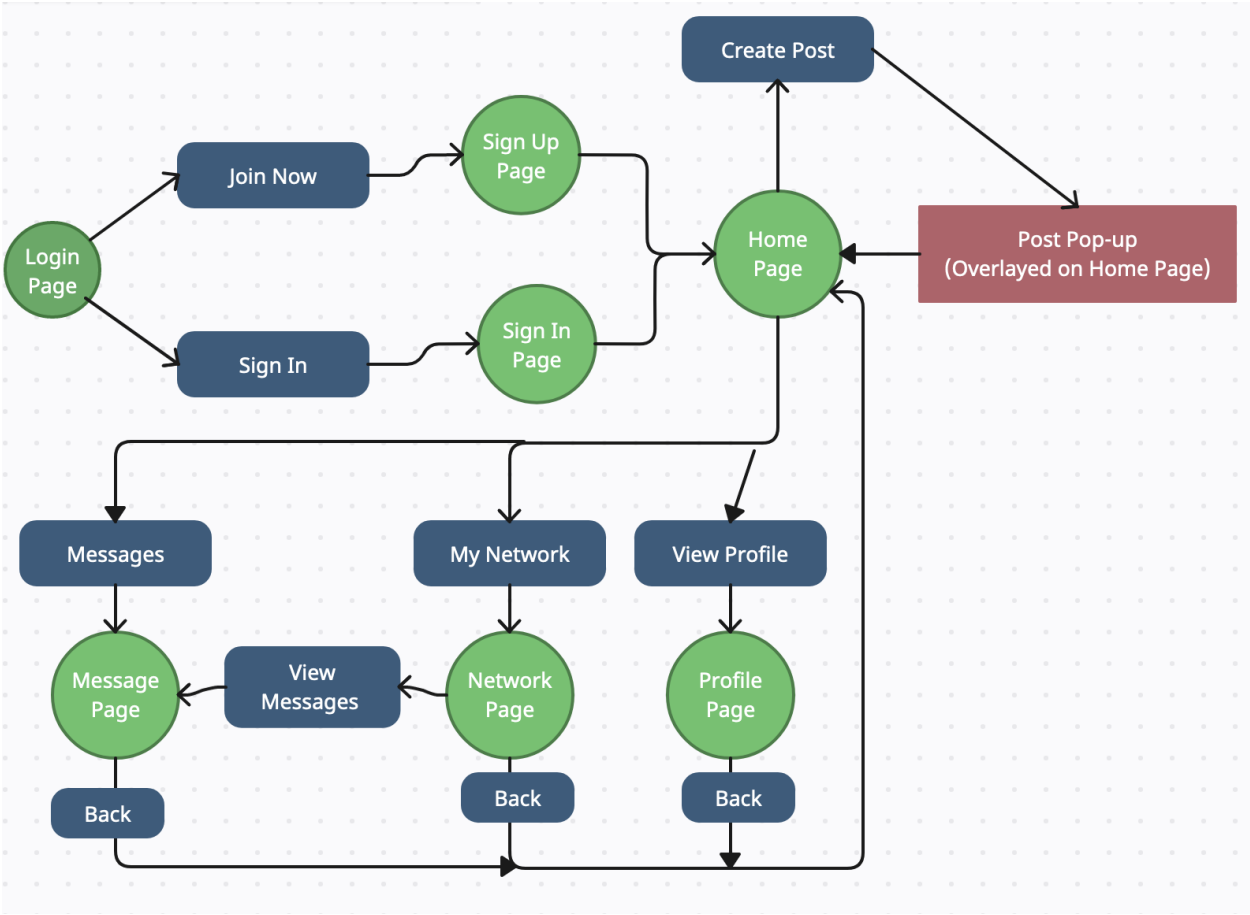
- Firebase : initializeApp, getStorage, getFirestore, getAuth, GoogleAuthProvider, signInWithRedirect, getDownloadURL, addDoc, getDoc, setDoc
- React: useState, useEffect, Modal, useForm, useDispatch, useNavigate

Data layer: Google Firebase Services

- Cloud Firestore Database, a NoSQL database that handles our data querying (Collections of users and posts, each holding information that can be accessed by the application layer).
- Cloud Storage holds large files that are associated with Firestore Database through a Downloadable URL link, a record of the link will be stored in Firestore.

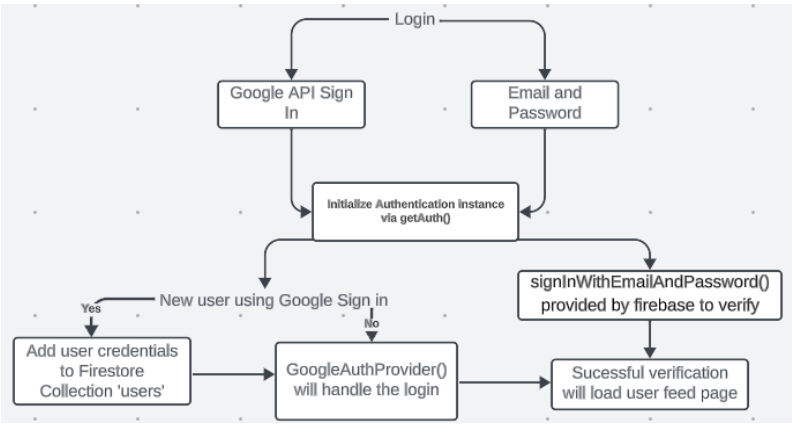
High Level Design

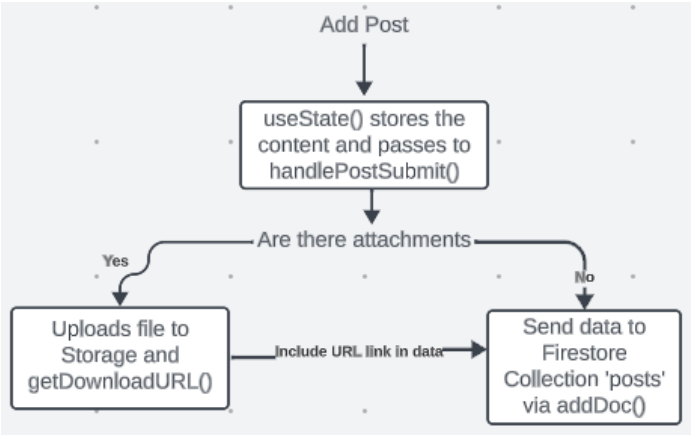
The overall design of our website will flow in the following manner. This reflects how user's of our site will navigate from one page to another.



Detailed Design

A detailed design of the classes and methods for main features that have been implemented are pictured below.




Add Post
useState() stores the content and passes to handlePostSubmit()
Are there attachments
Yes
No
Uploads file to Storage and getDownloadURL()
Include URL link in data
Send data to Firestore Collection 'posts' via addDoc()