P02 Design Document

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*INSTA*BOOK

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OVERVIEW

We are going to create a social media platform, similar to that of Instagram and Facebook. Users will be able to make posts, profiles, scroll through videos of other content creators and private message users they are friends with.

COMPONENTS

Front End:

- Homepage.html: IF NOT LOGGED IN: Site Introduction. IF LOGGED IN: Shows the profile of the person.
- SignIn.html: Users will be able to either log in into their accounts through existing accounts found within the database or sign up, creating a new account within the database.
- Search.html: Users will be able to search for the accounts of other content creators.
- Reels.html: Users will be able to explore the reels created by other content creators.
- Messages.html: Users will be able to privately message users that they are friends with.
- Profile.html: Users will be able to edit their profile and view the content that they have created.

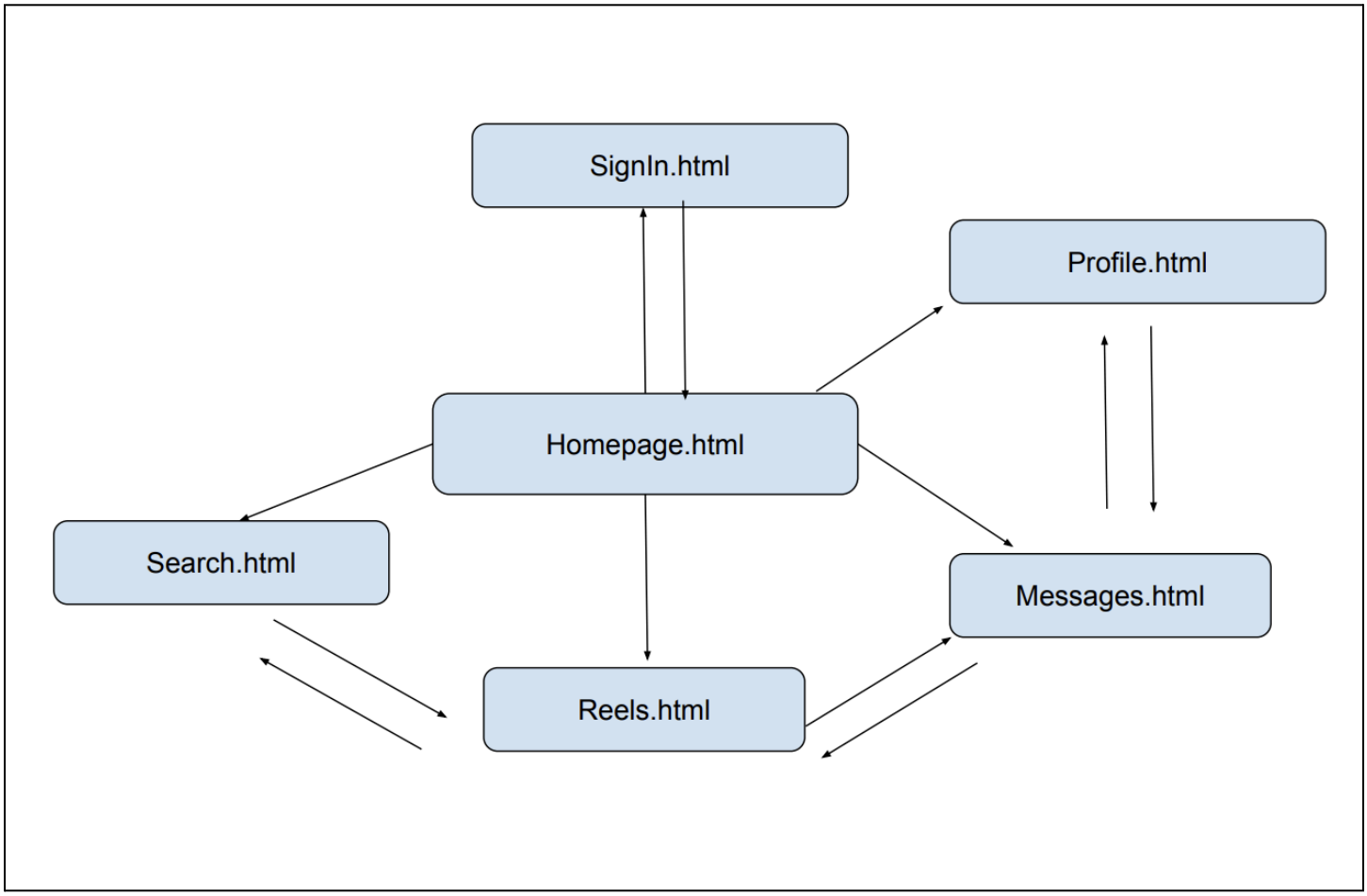
Back End:

- Instabook.db: Database that will store user accounts, reels, messages and friends.
- Instabook.js: Facilitates update of messages in pms
- __Init__.py: Renders website through flask

COMPONENT RELATIONSHIPS

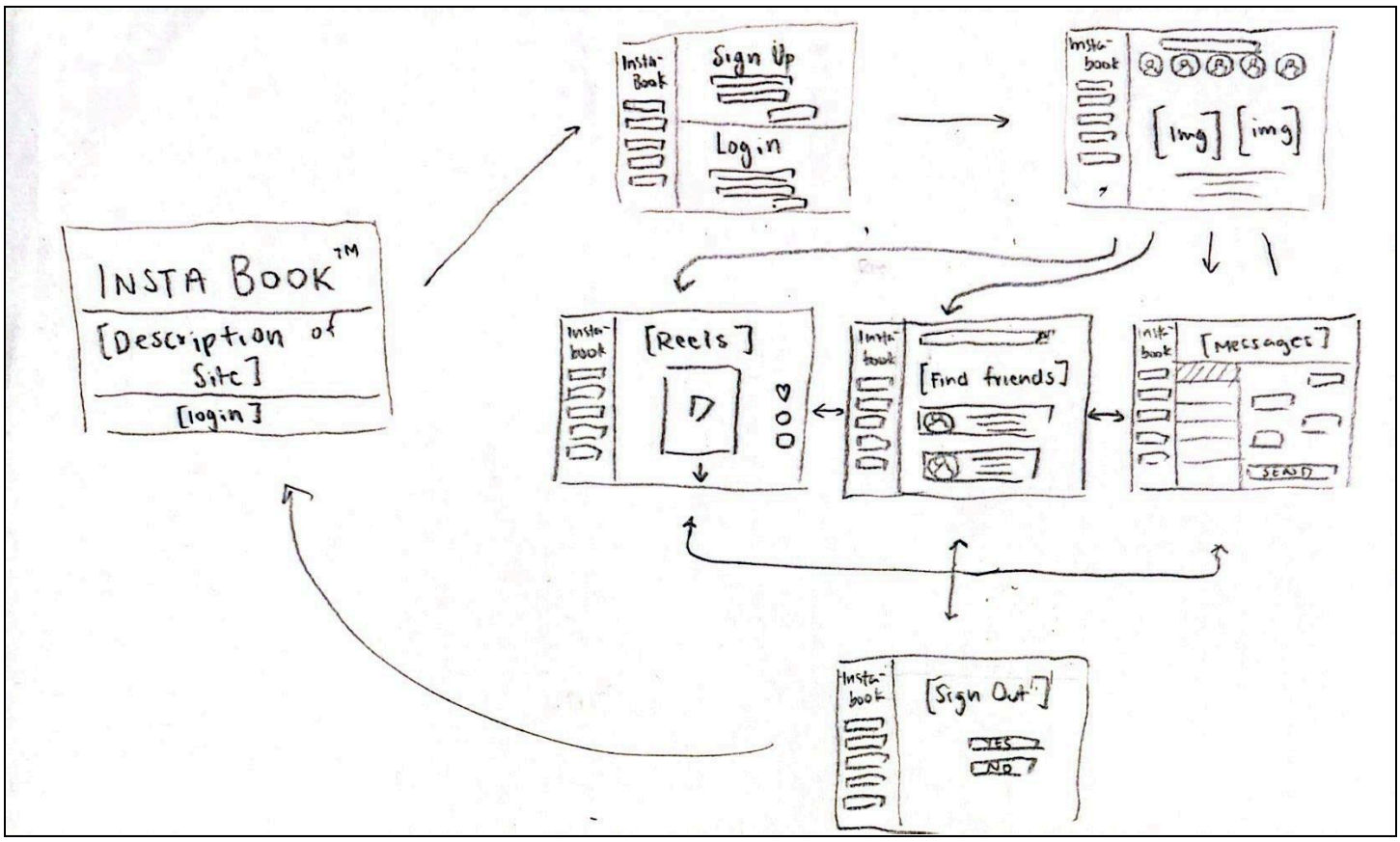
- Various functionalities (search, reels, messages, profile) will be available within a side navbar which will allow users to switch between pages wherever they are within the site.
- All functionalities will be available after logging in.

COMPONENT RELATIONSHIP VISUALIZATION



- Users will arrive on the homepage, then be given the option to sign in/up
- Upon signing in/up, users will be redirected to the homepage
- From the homepage, they can navigate to the apps other functionalities, including the search page, reels page, messages page and profile page
- The search, reels, messages, profile and homepage pages are accessible to each other

SITE MAP



DATABASE

users:

username	password	ID
TEXT	PYBYTE	INT

[username]'s Friends:

Friend
ARRAY of IDs

[username]'s Followers:

Followers
ARRAY of IDs

[username]'s posts:

Post	Video
IMAGE + TEXT	VIDEO

[username]To[Friend]:

MessageID	Sent By	Content
INT	ID	TEXT

APIs

1. **GoFile API:** cloud storage platform used to store videos / photos that will be added to instagram. Free API for short-term storage which is what we will be using within our project. [uses API keys]
2. **Google Firebase API:** storage platform for retrieving and sending messages in the messaging feature for our app. [uses API keys as well]

FRONTEND FRAMEWORK: TAILWIND

- **Utilize tailwind for buttons in user interface, toggle between light and dark mode, page sections, and prebuilt page designs.**
- **This will ensure consistent design throughout the entire website and create an appealing user experience.**

TASK ASSIGNMENTS

TASK	Jayden Zhang	Margie Cao	Danny Huang	Suhana Kumar
Setting up Python, SQLite3, and Tailwind environments.	X	X	X	X
User Authentication	X	X	X	X
Front-end (HTML)	X	X	X	X

Front-end (CSS + Tailwind)	X	X	X	X
DB Usage	X	X	X	X
Final Testing and Bug Fixing	X	X	X	X
Reels	X			
Profile		X		
Messages			X	
Search Feature + Login Functionality				X