

WORKABLE

SMARTPHONE-BASED WEB DEVELOPMENT

FALL 2022

INFO 6350 FINAL PROJECT



Student:

Kanishk Bhatia

NUID: 001580259

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Introduction

Workable is an application created with the current scenarios caused by the companies' layoffs. Many people have lost their jobs and are struggling to find new ones during this difficult time. Also, some people have come forward to support and help others by providing referrals for their current organization's available positions.

The application provides a compact platform for the users to post details about referrals or any professional help they can provide. The post consists of the organization's name, available positions with required skills, qualifications, about the organization, and contact details.

All users can view the posts and contact the concerned individual from the details provided. The users can also log into the application and open the dashboard to manage their posts. The user also can edit and delete their posts

Design

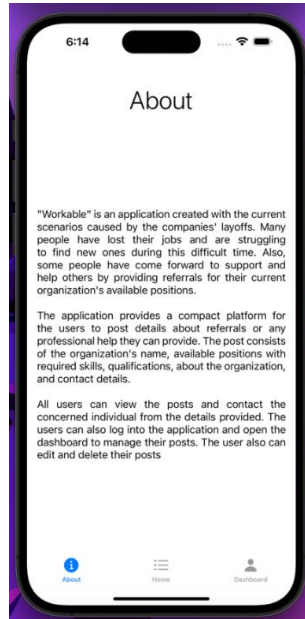
The application is designed using Xcode 14.2 IDE, on iOS version 16.0, and deployed/tested on the iPhone 14 Pro Max simulator. The application is implemented with Auto-layout, so it can be used on any iPhone.

The application launch screen displays the logo of the application

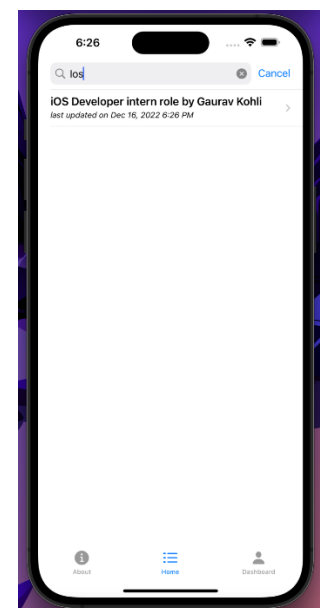
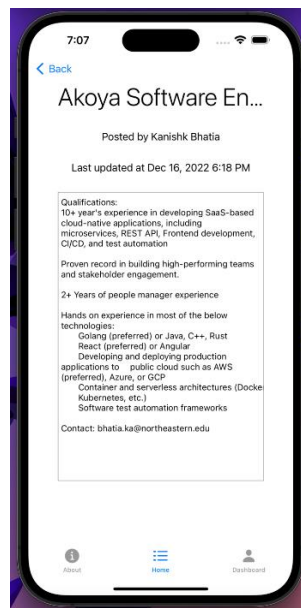
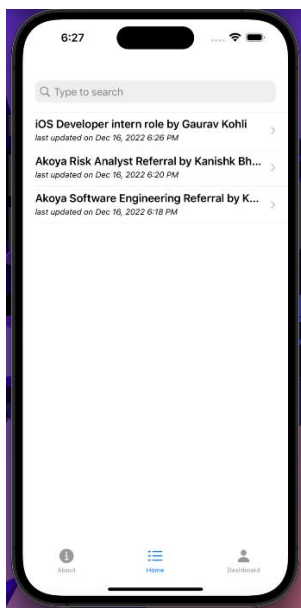


The tabbed interface is implemented using the TabViewController. The following tabs are visible:

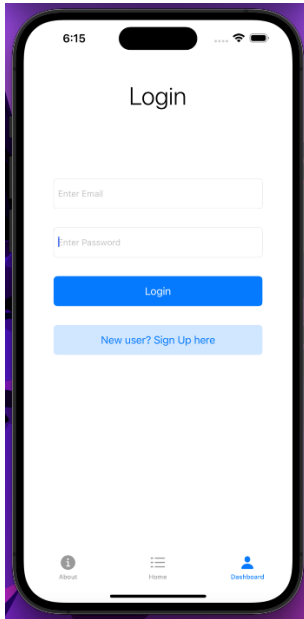
1. **About Screen:** Provides information about the application



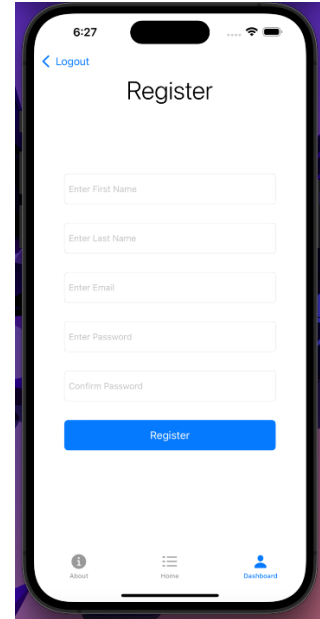
2. **Home Screen:** All the posts are displayed on this tab. The post details can be checked by tapping on the post here. Posts can also be searched by typing into the search bar.



3. **Dashboard Screen:** Used to log in/register the user. When a user logs in or registers on the application, they can then create, edit, and delete their posts

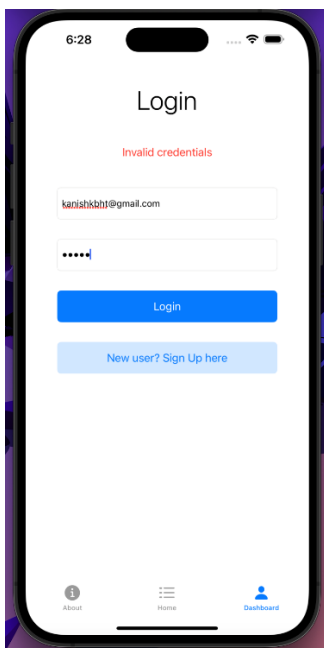


A mobile app mockup of the Login screen. The status bar at the top shows the time 6:15. The screen has a white background with the title "Login" at the top. Below the title are two input fields: "Enter Email" and "Enter Password". A blue "Login" button is positioned below the password field. At the bottom of the form area is a light blue button that says "New user? Sign Up here". The bottom of the screen features a navigation bar with three icons: "About", "Home", and "Dashboard".

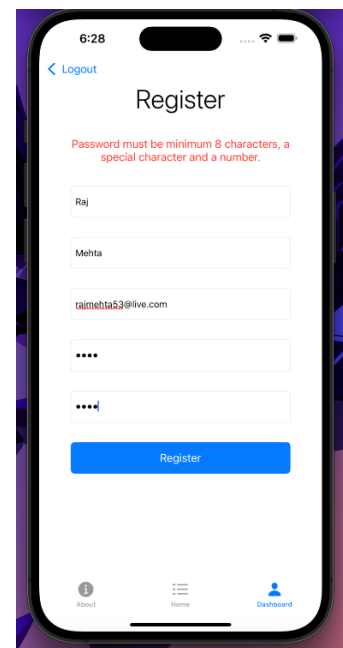


A mobile app mockup of the Register screen. The status bar at the top shows the time 6:27. The screen has a white background with the title "Register" at the top. A blue "Logout" link is in the top left corner. Below the title are five input fields: "Enter First Name", "Enter Last Name", "Enter Email", "Enter Password", and "Confirm Password". A blue "Register" button is positioned below the "Confirm Password" field. The bottom of the screen features a navigation bar with three icons: "About", "Home", and "Dashboard".

The login and register screens have validations for email, password, password match, and empty fields. It indicates to the user if they made any errors.

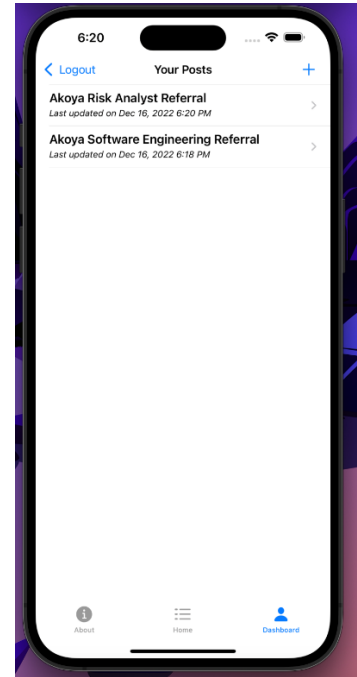
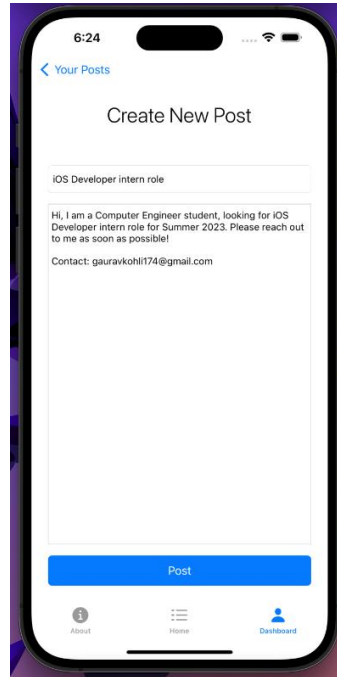
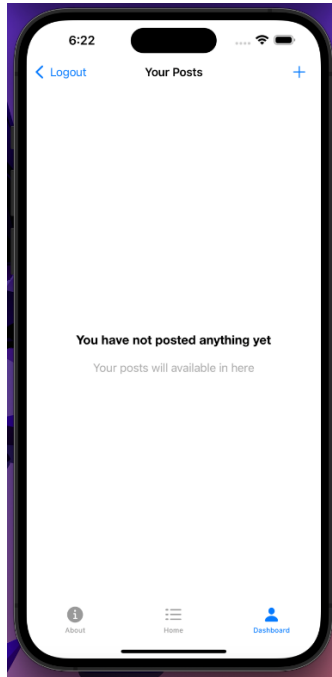


A mobile app mockup of the Login screen showing an error state. The status bar at the top shows the time 6:28. The screen has a white background with the title "Login". Below the title, the text "Invalid credentials" is displayed in red. The "Enter Email" field contains the text "kanishkbht@gmail.com" and has a red error underline. The "Enter Password" field contains four dots and has a red error underline. The blue "Login" button is still present. At the bottom of the form area is a light blue button that says "New user? Sign Up here". The bottom of the screen features a navigation bar with three icons: "About", "Home", and "Dashboard".

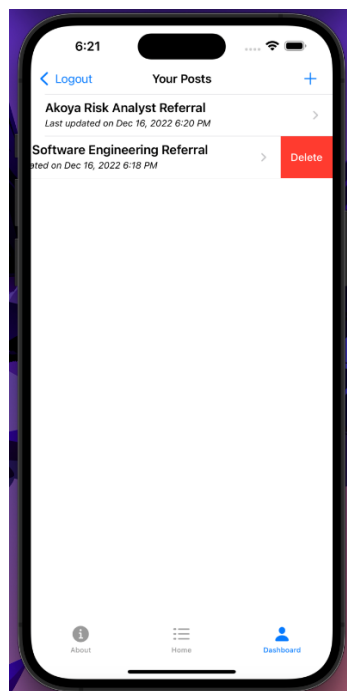


A mobile app mockup of the Register screen showing an error state. The status bar at the top shows the time 6:28. The screen has a white background with the title "Register". A blue "Logout" link is in the top left corner. Below the title, the text "Password must be minimum 8 characters, a special character and a number." is displayed in red. The "Enter Password" field contains four dots and has a red error underline. The "Confirm Password" field contains four dots and has a red error underline. The blue "Register" button is still present. The bottom of the screen features a navigation bar with three icons: "About", "Home", and "Dashboard".

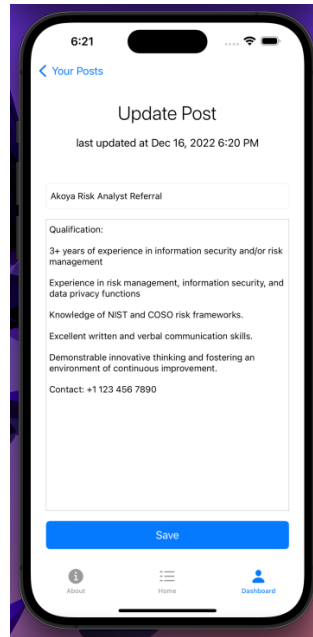
After logging in/registering on the application, the user gets to view their posts, an option to add new posts, and a logout button



On swiping the post left, the delete option pops up, to delete the post



While the user is logged in to the application, they can update their posts by tapping on them



Data Model

The application includes two data models, with the following attributes:

1. User:

- id
- firstName
- lastName
- email

2. Post:

- id
- title
- body
- createdById
- createdByName
- updateTime

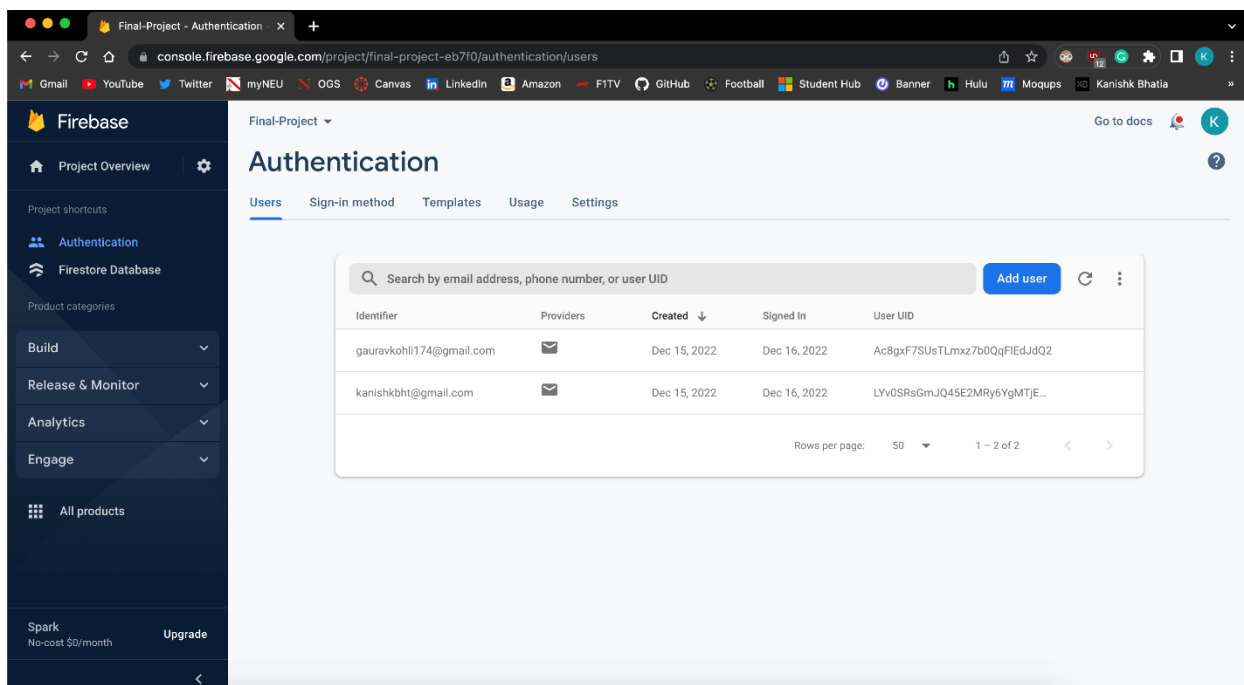
Both models implement the Codable protocol, which is a type alias for the Encodable and Decodable protocols. This makes reading and writing the data efficiently.

Database

The application is implemented with Firebase. This allows the application to be used on multiple devices as the storage is not limited to the local database.

1. **Firebase Authentication:** It is easy to set up, provides serverless authentication, has industry-standard security, efficient user management, and has cross-platform support for future expansion of the application.
2. **Firebase Firestore:** It is a NoSQL database, which is highly scalable, supports real-time updates, and strong security, and gives offline support, which means that the user can continue to view or create posts while the device is offline. The database gets updated as soon as the device connects back to the internet.

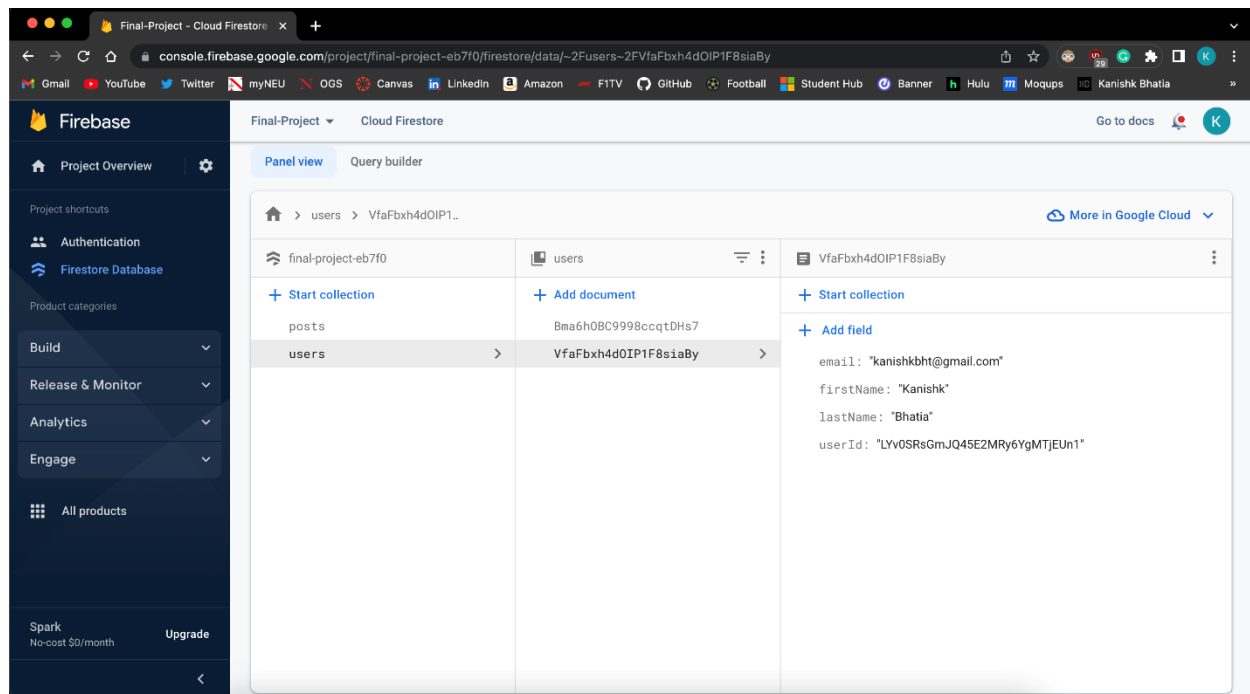
Authenticated Users: The list of users that have been successfully authenticated



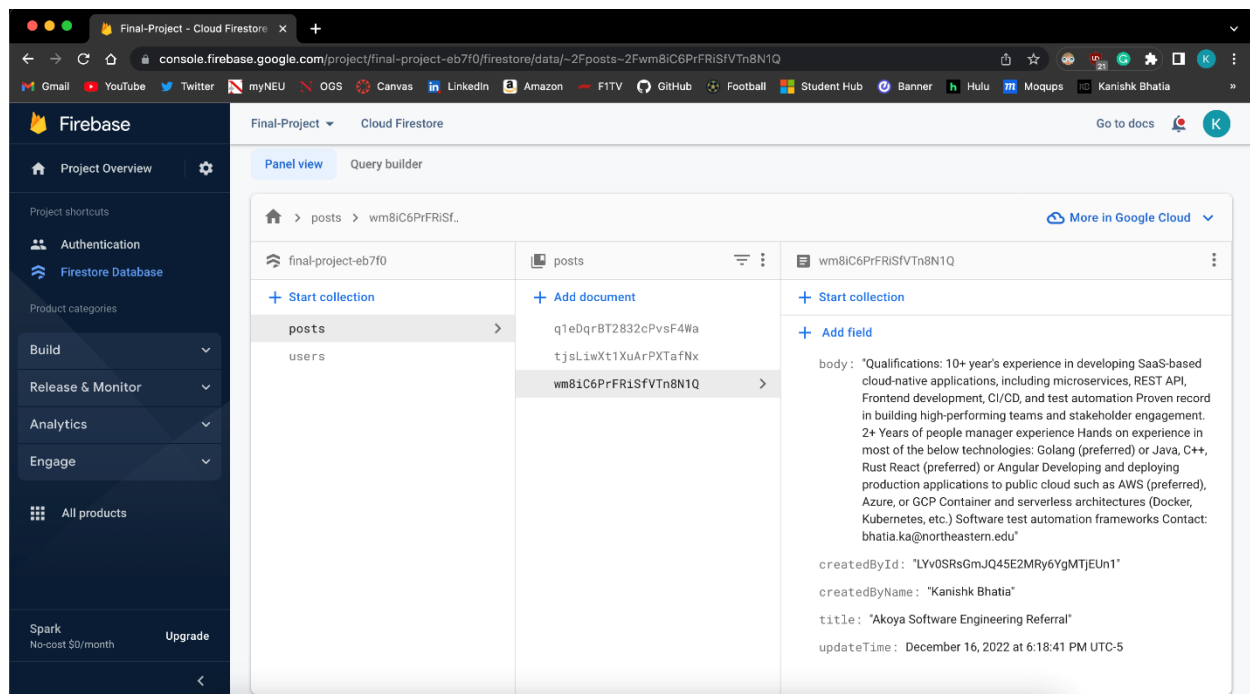
The screenshot shows the Firebase Authentication console for a project named 'Final-Project'. The 'Users' tab is selected, displaying a table of authenticated users. The table has columns for Identifier, Providers, Created, Signed In, and User UID. Two users are listed: gauravkohl174@gmail.com and kanishkbht@gmail.com, both created on Dec 15, 2022, and signed in on Dec 16, 2022. The console also features a search bar, an 'Add user' button, and pagination controls showing 1 to 2 of 2 rows.

Identifier	Providers	Created	Signed In	User UID
gauravkohl174@gmail.com	📧	Dec 15, 2022	Dec 16, 2022	Ac8gx7SUsTLmxz7b0QqFIEJdQ2
kanishkbht@gmail.com	📧	Dec 15, 2022	Dec 16, 2022	LYv0SRsGmJQ45E2MRy6YgMTJE...

Users Database: A database of all the users that have registered on the application



Posts Database: A database of all the posts on the application, with the user id and user name



Future Improvements

The application will provide support for a lot of people in the professional workspace, however, the application can be improved soon by adding some other functionalities:

1. Additional providers for registering like Google, Microsoft, Twitter, etc., as these are services widely used, provide one-tap registration, and are more secure than an email registration.
2. Enable message passing between users, so they can directly interact with other users inside the application itself. This provides ease of communication.
3. Provide support for a large number of users. The application uses the free version of Firebase, which does not provide support for a large database. Improving on this enables more users onto the application.