

Name: Hencez Heart M. Section: IT64 (IT36A)

Introduction

In this project, we develop a robust authentication and CRUD application using React Native and Firebase. The application ensures secure user management with Firebase as the backend and incorporates form validation through Formik and Yup. It supports OAuth authentication for Google and Facebook and enables CRUD operations for managing todo tasks. This project demonstrates the integration of these technologies to provide a seamless and secure user experience.

Feature

Authentication: Secure login and registration system using Firebase.

Form Validation: Essential input validation using Formik and Yup.

OAuth Authentication: Google and Facebook sign-in.

CRUD Operations: Create, Read, Update, Delete todo tasks on the home page.

Description of my Works

Authentication System

The authentication system utilizes Firebase for user management, ensuring secure login and registration processes. Formik and Yup are used for form validation to prevent null entries and incorrect values, providing a smooth user experience. The system also integrates OAuth for Google and Facebook, allowing users to sign in with their existing accounts securely.

CRUD Operations

The home page of the application is designed to handle CRUD operations for todo tasks. Users can create new tasks, view existing ones, update details, and delete tasks as needed. This functionality is critical for task management applications, providing users with the flexibility to manage their to-dos efficiently.

Conceptual Framework

The conceptual framework of this project revolves around integrating several key components to build a functional and secure mobile application. The primary components include:

React Native: For building the mobile application interface.

Firebase: Serving as the backend API for authentication and data storage.

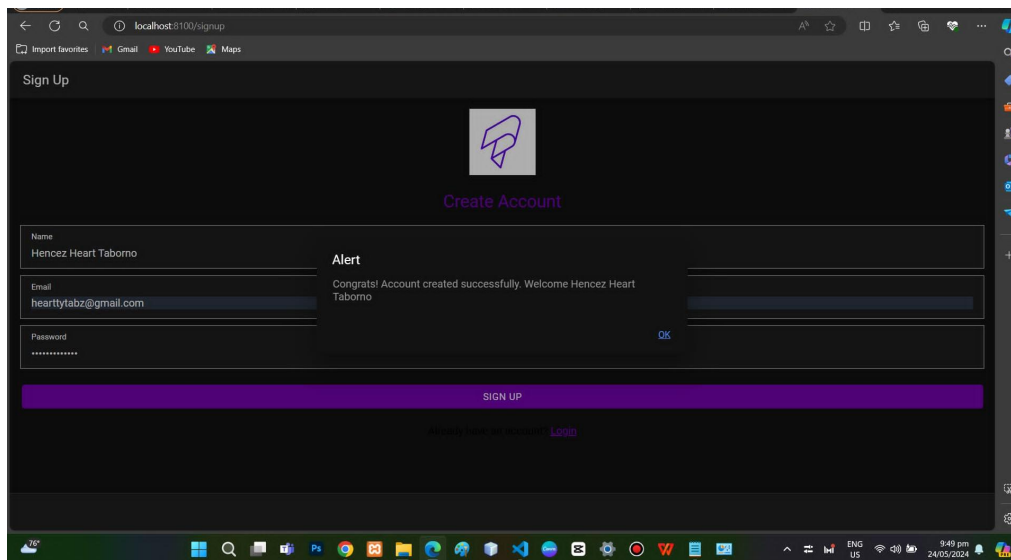
Formik and Yup: Ensuring form validation to maintain data integrity.

OAuth Authentication: Enhancing security and user convenience with Google and Facebook login options.

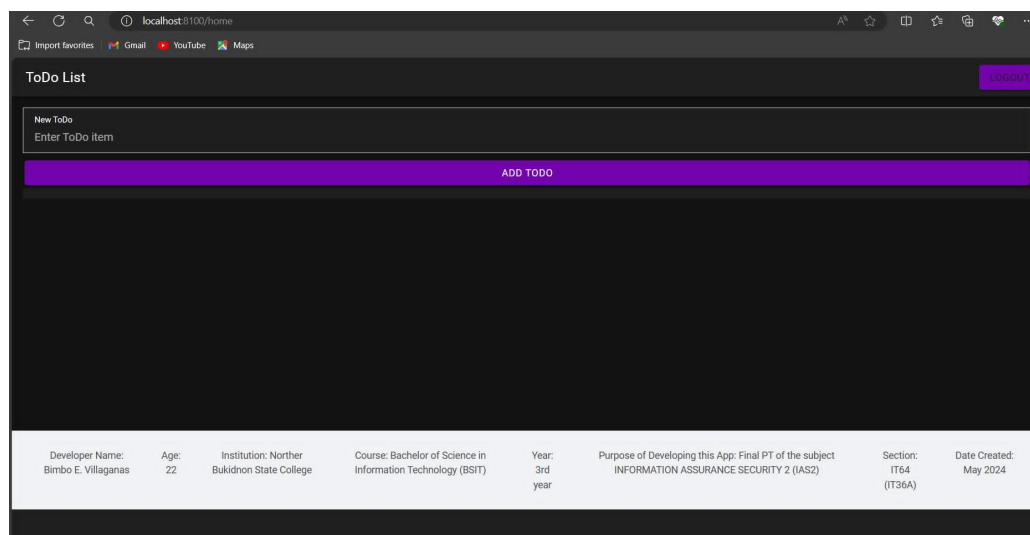
CRUD Operations: Implemented on the home page to manage todo tasks effectively.

The System (Screenshots of my Output)

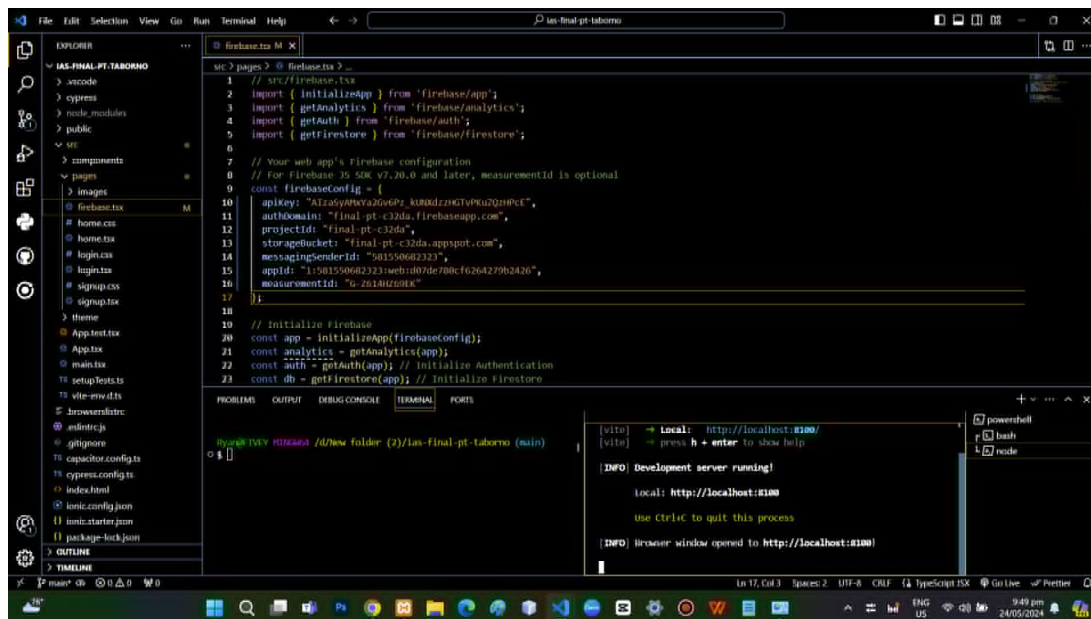
Login and Registration Screens



HOME



Source Code



```
1 // src/firebase.ts
2 import { initializeApp } from 'firebase/app';
3 import { getAnalytics } from 'firebase/analytics';
4 import { getAuth } from 'firebase/auth';
5 import { getFirestore } from 'firebase/firestore';
6
7 // Your web app's Firebase configuration
8 // For Firebase JS SDK v7.20.0 and later, measurementId is optional
9 const firebaseConfig = {
10   apiKey: "AIzaSyMvva2Gv6Pj_ku0dz2zGtV9u2Qn9cct",
11   authDomain: "final-pt-c32da.firebaseio.com",
12   projectId: "final-pt-c32da",
13   storageBucket: "final-pt-c32da.appspot.com",
14   messagingSenderId: "981550682323",
15   appId: "1:981550682323:web:d07de708c16264279b2426",
16   measurementId: "G-2618H269EK"
17 };
18
19 // Initialize Firebase
20 const app = initializeApp(firebaseConfig);
21 const analytics = getAnalytics(app);
22 const auth = getAuth(app); // Initialize Authentication
23 const db = getFirestore(app); // Initialize Firestore
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Run and Debug: /d/new folder (2)/las-final-pt-taborno (main)
0 $ [

[vite] → local: http://localhost:8100/
[vite] → press h + enter to show help

[INFO] Development server running!
local: http://localhost:8100
Use Ctrl+C to quit this process

[INFO] Browser window opened to http://localhost:8100!
```