UNIVERSITI MALAYSIA TERENGGANU

CSM3114

FRAMEWORK BASED MOBILE APPLICATION DEVELOPMENT

PROJECT 2

SMART TRAVEL PLANNER APP

PREPARED BY:

NAME : MAZIAH MUHASSANAH BINTI MALEK RADZUAN
MATRIC NO : S61811

PREPARED FOR:

LECTURER'S NAME: DR MOHAMAD NOR HASSAN

BACHELOR OF COMPUTER SCIENCE (MOBILE COMPUTING) WITH HONORS

SEMESTER 1 2023/2024

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Smart Travel Planner app is a feature-rich mobile solution that offers users cost estimation and intelligent itinerary planning to improve the travel experience. The app makes it simple for users to plan and arrange their travel schedules, guaranteeing a seamless and well-organized experience. Through an intuitive interface, users can enter preferences, activities, and destination details, enabling the app to create the best possible itineraries. The addition of the Estimate Cost function gives users insightful information about what to expect to pay for their travel expenses. The application facilitates fluid screen navigation and provides quick access to key features like cost estimation and itinerary creation. The Smart Travel Planner app prioritizes user convenience and effective trip planning in order to become a vital resource for travelers looking for a hassle-free and enjoyable travel experience.

USE CASE

1. User Sign-up and Login:

- Scenario: Alice, who travels often, is trying to organize her next trip. She launches the Smart Travel Planner app and enters her current login information.
- Action: Using Firebase authentication, the app verifies her login information.

2. Creating a New Itinerary:

- Scenario: Alice makes the decision to alter her vacation schedule. Acting upon her destination, start and end dates, and her itinerary, she navigates to the "Create Itinerary" page and makes her plans. She is guided through the procedure and has a flawless experience thanks to the app.

3. Estimating Costs:

- Scenario: Alice wants to know how much her trip will cost overall, so she enters the details of her itinerary. She then goes to the "Estimate Cost" section of the app, where it uses clever algorithms to give her an estimate based on her accommodations and transportation costs.

4. Exploring community FAQs:

- Scenario: Alice looks through the Q&A section, inquiring about travel advice and tips.
- Action: She discovers a vibrant community where users share FAQs, travel hacks, and personal experiences. This gives her useful information that improves her planning.

5. Viewing and Editing Your Profile:

- Scenario: Alice chooses to update her profile details because she wants to make them more unique.
- Action: She accesses her profile, looks through previous travel plans, and modifies her preferences. The application guarantees an easy-to-use interface for handling personal data.

6. Logout and Security:

- Scenario: Alice logs out to protect her data after finishing her planning.

- Action: The application safely logs her out while protecting the privacy of her data.

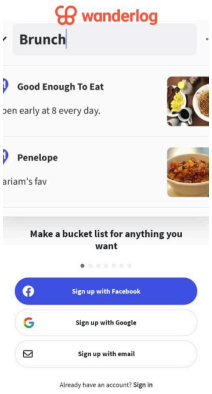
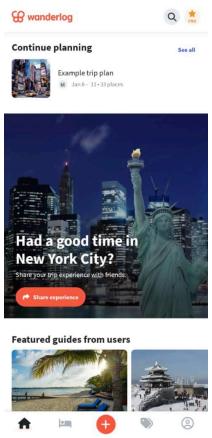
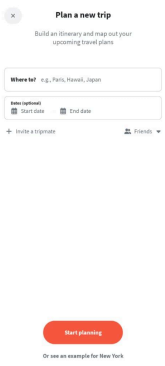
7. Feedback and Continuous Development:

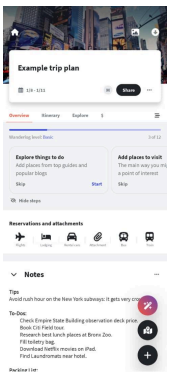
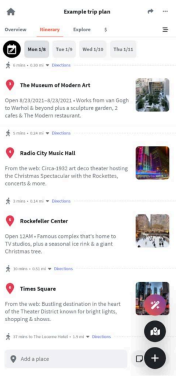
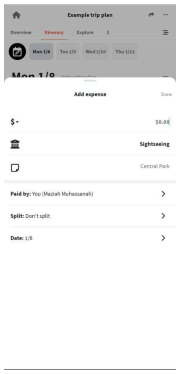
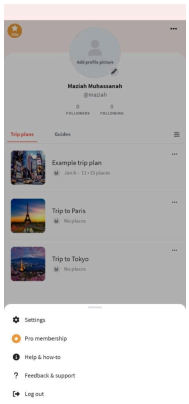
- Scenario: Alice would like to offer comments and recommendations following the trip.
- Action: By encouraging users to share their insights and experiences, the app promotes a community-driven strategy for ongoing development.

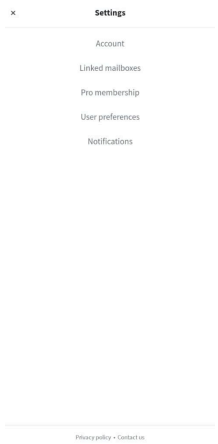
COMMON STRUCTURE OF TREE WIDGETS USED WHEN DESIGNING AND DEVELOPING THE APP

1. MaterialApp: The root widget that initializes the app with material design principles.
2. Authentication: Manages user authentication, including login and registration screens.
3. LoginScreen: Allows users to log in with their credentials.
4. RegistrationScreen: Allows new users to register.
5. HomeScreen: The main screen containing the primary functionality of the app.
6. BottomNavigationBar: Navigation bar at the bottom for quick access to essential app sections.
7. ItineraryScreen: Displays a list of user itineraries and allows the creation of new ones.
8. ExploreScreen: Provides information about travel destinations and activities
9. ProfileScreen: Shows user details and options for editing profile settings.
10. ItineraryDetailsScreen: Displays detailed information about a specific itinerary.
11. ExploreDetailsScreen: Displays detailed information about a specific travel destination or activity.
12. ProfileDetailsScreen: Shows detailed user information.
13. EditProfileScreen: Allows users to edit their profile information.
14. SettingsScreen: Offers app settings and preferences.
15. LogoutConfirmationDialog: A dialog that confirms user intent to log out.
16. LoadingIndicator: A visual indicator (e.g., spinner) shown during loading or processing.

SAMPLE OF INTERFACE

INTERFACE	EXPLANATION
	Users will see this interface first after opening the app and continue to sign up or sign in.
	After signing in or signing up, the user will be prompted to this interface which is the main page. At the bottom, there is a navigation bar which will lead the user to another page when clicking the widget.
	This will be the interface for user to input or register the place of their trip.

	After registering the place of trip, users will be prompted to this interface which shows the overview of the trip plans.
	Users can create itineraries at this interface.
	Users can add the cost of each itinerary and can plan estimated cost for the itinerary.
	This is the profile page where user can see their latest trip plan.

	Users can manage their settings of the app at this page.

CONCLUSION

To sum up, the Smart Travel Planner app is an advanced and user-friendly way to improve the trip planning process. The application seamlessly combines itinerary creation, cost estimation, and user engagement by utilizing the power of Firebase for reliable authentication and data storage and Flutter for a cross-platform, aesthetically pleasing interface. During the whole development process, the goal was to create an application with lots of features that prioritized user friendliness. Continuous improvement was made possible by the iterative development approach, which addressed user feedback and improved functionality. Going forward, travelers will have access to a comprehensive tool that makes planning easier, encourages community interaction, and guarantees a well-organized and memorable trip, thanks to the Smart Travel Planner app.

REFERENCES

1. *Get Started with Firebase Authentication on Flutter*. (n.d.). Firebase. https://firebase.google.com/docs/auth/flutter/start#:~:text=Add%20Firebase%20Authentication%20to%20your%20app,-From%20the%20root&text=To%20use%20an%20authentication%20provider,you%20want%20for%20your%20app.
2. *Authenticate with Firebase using Password-Based Accounts on Flutter*. (n.d.). Firebase. https://firebase.google.com/docs/auth/flutter/password-auth
3. Code with Kavit. (2022, February 3). *Flutter login and Signup using Firebase* [Video]. YouTube. https://www.youtube.com/watch?v=IPMIcGTzxGc
4. JeronDev. (2022, December 3). *Master Flutter UI - Build a travel app from Scratch. PART 1* [Video]. YouTube. https://www.youtube.com/watch?v=FIX1eQYyzbA
5. *Explore Flutter User Profile Page with Firebase*. (n.d.). https://www.dhiwise.com/post/flutter-user-profile-page-with-firebase-a-practica-guide
6. *flutter_faq | Flutter Package*. (n.d.). Dart Packages. https://pub.dev/packages/flutter_faq

GITHUB LINK:

https://github.com/maziahmuhassanah/Smart-Travel-Planner-App

SLIDE LINK:

https://www.canva.com/design/DAF5wQKMorM/d6v3U8epFtKLEu2kD9_StQ/edit?utm_content=DAF5wQKMorM&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton