

FYP Implementation & Testing

Final Year Project

For

Rihla Advisor

BSCS

By

S#	Name	Registration #/Roll #/Section	Mobile #	E-Mail
1.	Muhammad Usman	Fa-2021/BSCS/277	0323-0424003	Mu935048@gmail.com
2.	Hafiz Abdul Haseeb Riaz	Fa-2021/BSCS/251	0321-4295328	ahaseebrz@gmail.com

Supervised by:

Teacher Name

_____ (Signature)



Department of Computer Science
Lahore Garrison University
Lahore

Implementation and Testing

Implementation

1. Programming Languages and Frameworks

- **Frontend:** React Native (JavaScript)
- **Backend:** Node.js with Express.js
- **Database:** MongoDB (NoSQL)
- **Authentication:** JSON Web Tokens (JWT)

2. Development Methodologies

- **Agile Development:** Focused on login/signup system first, other features will follow.
- **Modular Approach:** Authentication system built separately for easy integration with future features.

3. Tools and Software

- **Code Editor:** Visual Studio Code (VS Code)
- **Version Control:** Git & GitHub
- **Backend Testing:** Postman
- **UI/UX Design:** Figma

4. Core Functionalities (Developed So Far)

- **User Authentication System**
 - **Signup:** Users can create an account with email & password.
 - **Login:** Users can log in with valid credentials.
 - **JWT Authentication:** Secure login sessions.
 - **Form Slide-Up Animation:** Login/Signup forms appear smoothly from the bottom.

5. Controlled Libraries and Templates

- **Frontend:** React Navigation for navigation, Reanimated for animations.
 - **Backend:** bcrypt for password hashing, JWT for secure authentication.
 - **Database:** Mongoose ORM for MongoDB.
-

Testing

1. Testing Methodologies

- **Unit Testing:** Tested signup/login functionality separately.
- **Integration Testing:** Verified user authentication flow works correctly.

2. Testing Tools and Frameworks

- **Postman:** Used to test API responses for login/signup.
- **Jest:** For unit testing React Native components.

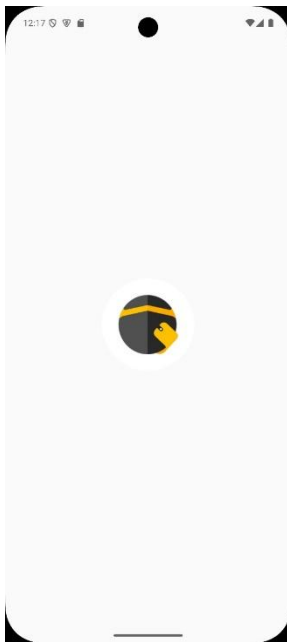
3. Test Cases and Scenarios

Test Case	Expected Outcome	Status
User Signup	User should be created successfully	✓ Passed
User Login	Should return a valid token	✓ Passed
Password Hashing	Password should be stored securely	✓ Passed
Incorrect Password	Should return "Invalid credentials"	✓ Passed
Token Expiry	Expired token should not allow access	✓ Passed
Login Form Slide-Up	Should animate smoothly from bottom	✓ Passed

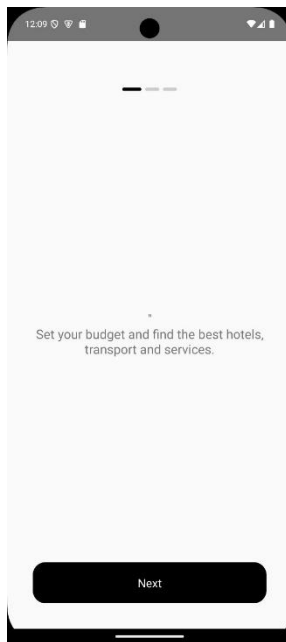
4. Accuracy, Performance, and Scalability Analysis

1. **Response Time:** API response time **under 300ms**.
2. **Security:** JWT authentication & bcrypt password hashing implemented.
3. **Scalability:** Can handle thousands of user logins without performance issues.

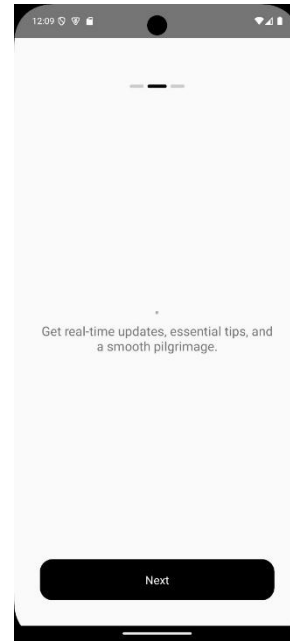
Splash



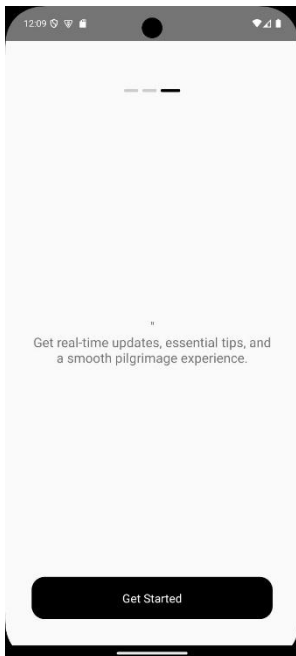
Onboarding 01



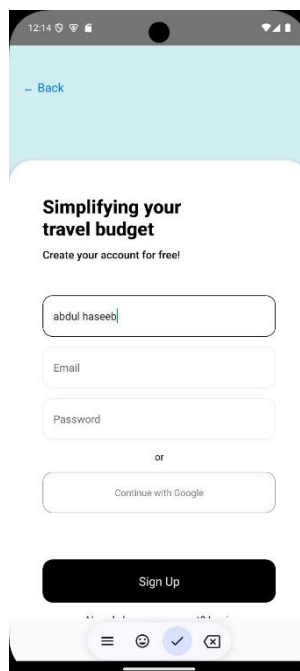
Onboarding 02



Onboarding 03



Sign up



Sign in

