Lakehead UNIVERSITY | Faculty of Graduate Studies

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Department of Computer Science
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Mobile Programming

Challenge 1

Health Monitoring APP: Vibe Vitals

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Introduction

Vibe Vitals is our personalized companion for achieving better health, we built with using Flutter. This app goes beyond basic tracking - it helps you build healthy habits by offering insights tailored to your unique profile. Whether you're aiming to improve your sleep, drink more water, or take regular breaks from screen time, Vibe Vitals empowers you to take charge of your well-being in a simple, intuitive way.

Features

1. **Health and wellness Tracking**
   Users can manually input details for their daily steps, heart rate, daily water intake and the number of hours they sleep per daytime.

2. **Setting Personalized goals**
   Users have the freedom to set daily custom targets for the number of steps taken, sleep and how they stayed hydration during the day. Users can also edit and view goals through a user- friendly interface that's easy to use.

3. **On-boarding flow**
   The app collects user data like: Name, Dob, gender, height and weight. It further calculates and displays BMI.

4. **Dashboard**
   The app provides a quick summary of the daily metrics with visuals stats and adds motivation quotes to help users stay motivated. Data.

Technology Stack

- **Front end Framework: Flutter**
- **Programming language: Dart**
- **UI Toolkit: Material Design & Cupertino**
- **Fonts & Icons: Google fonts, Cupertino Icons**
- **IDES: IntelliJ IDEA/ Xcode**
- **Shared Preference: To store user settings, profile data, and daily logs persistently on the device.**

Project Structure

```
health_monitor/
├── lib/
│   ├── models/
│   │   ├── health_metric.dart
│   │   └── user_profile.dart
│   ├── services/
│   │   ├── health_service.dart
│   │   ├── basic_health_service.dart
│   │   └── user_service.dart
│   ├── screens/
│   │   ├── home_screen.dart
│   │   ├── onboarding_screen.dart
│   │   ├── profile_screen.dart
│   │   ├── health_test_screen.dart
│   │   ├── health_data_screen.dart
│   │   └── metric_detail_screen.dart
│   ├── widgets/
│   │   ├── metric_input_dialog.dart
│   │   └── profile_avatar.dart
│   ├── theme/
│   │   └── app_theme.dart
│   └── main.dart
├── assets/
│   └── fonts/
├── ios/
├── HEALTHKIT_SETUP.md
├── setup_healthkit.sh
└── README.md
```

Setup Instructions

- Prerequisites

-Flutter SDK (Version Flutter 3.29 or better)
-Dart SDK (version 3.7 or better)
-Android Studio / Xcode / VS Code
-Git for version control
-Emulator (iPhone 16 pro)

1. Ensure Flutter SDK is installed (https://flutter.dev/docs/get-started/install)
2. Clone the GitHub repository or unzip the project folder into your workspace
   - git clone https://github.com/venusbhatia/vibe_vitals
3. Navigate to the project directory via terminal or IDE
4. Run *'flutter pub get'* to fetch dependencies
5. Run the build runner to generate required files:
   - *flutter pub run build_runner build*

- How to Run the App:
  - Use 'flutter run' from the root directory and launch the app via Android Studio/IntelliJ IDEA on an emulator or connected device - Use this command: - “flutter run” this will initiate the launch sequence.

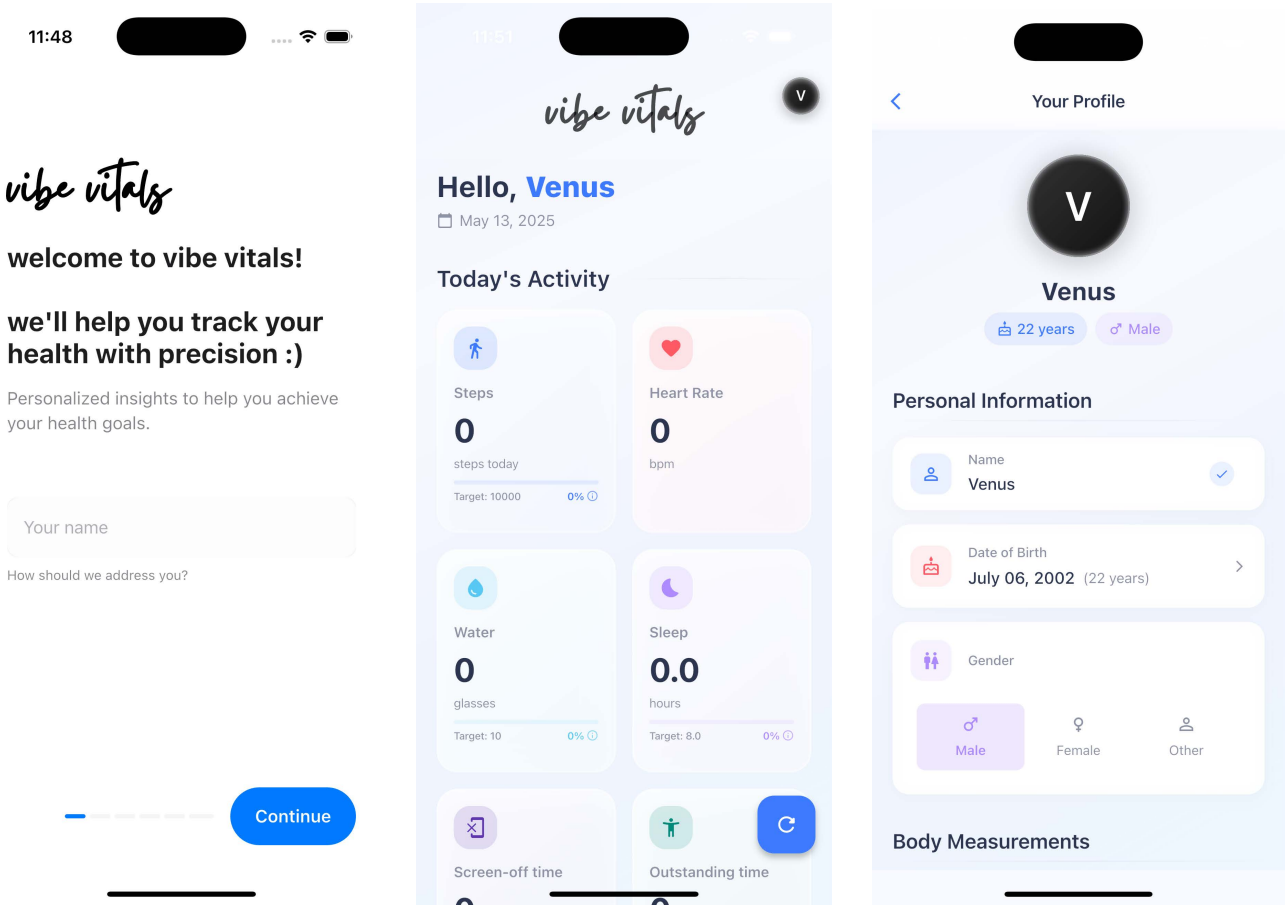
GitHub Repository Link

https://github.com/venusbhatia/
vibe_vitals

Screenshots

The following screenshots showcase the key features and interfaces of our Health Monitoring App:

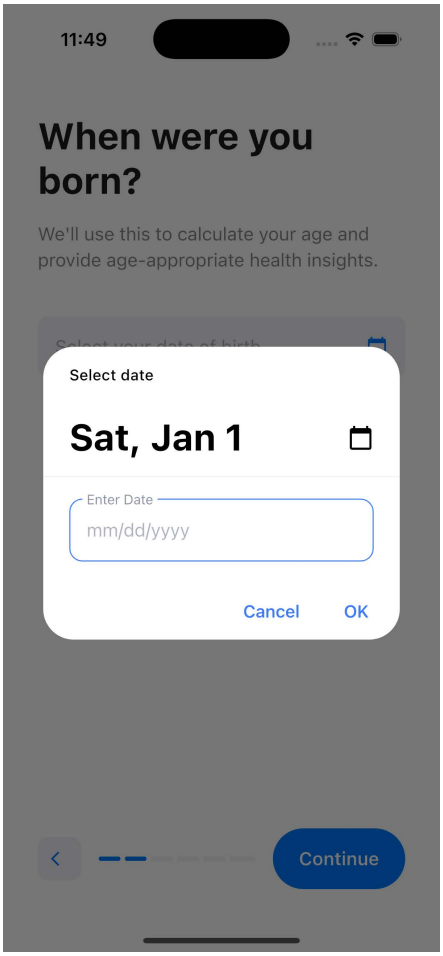
1. Main Pages Screen

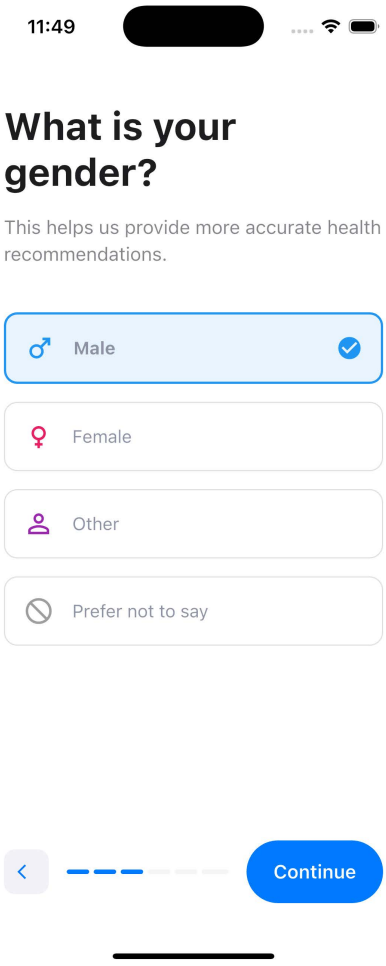


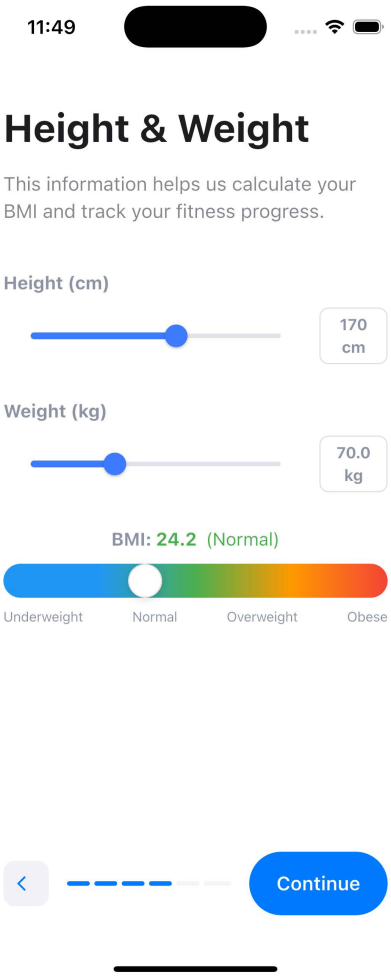
The main screens displays the main task list interface featuring:

- A clean, organized welcome page when app opens for the first time.
- User friendly homepage with all listed activities one can track.
- Star icons for important tasks.
- Persoanlized user profile after use sets up account.

2. User set up & Creation/Editing



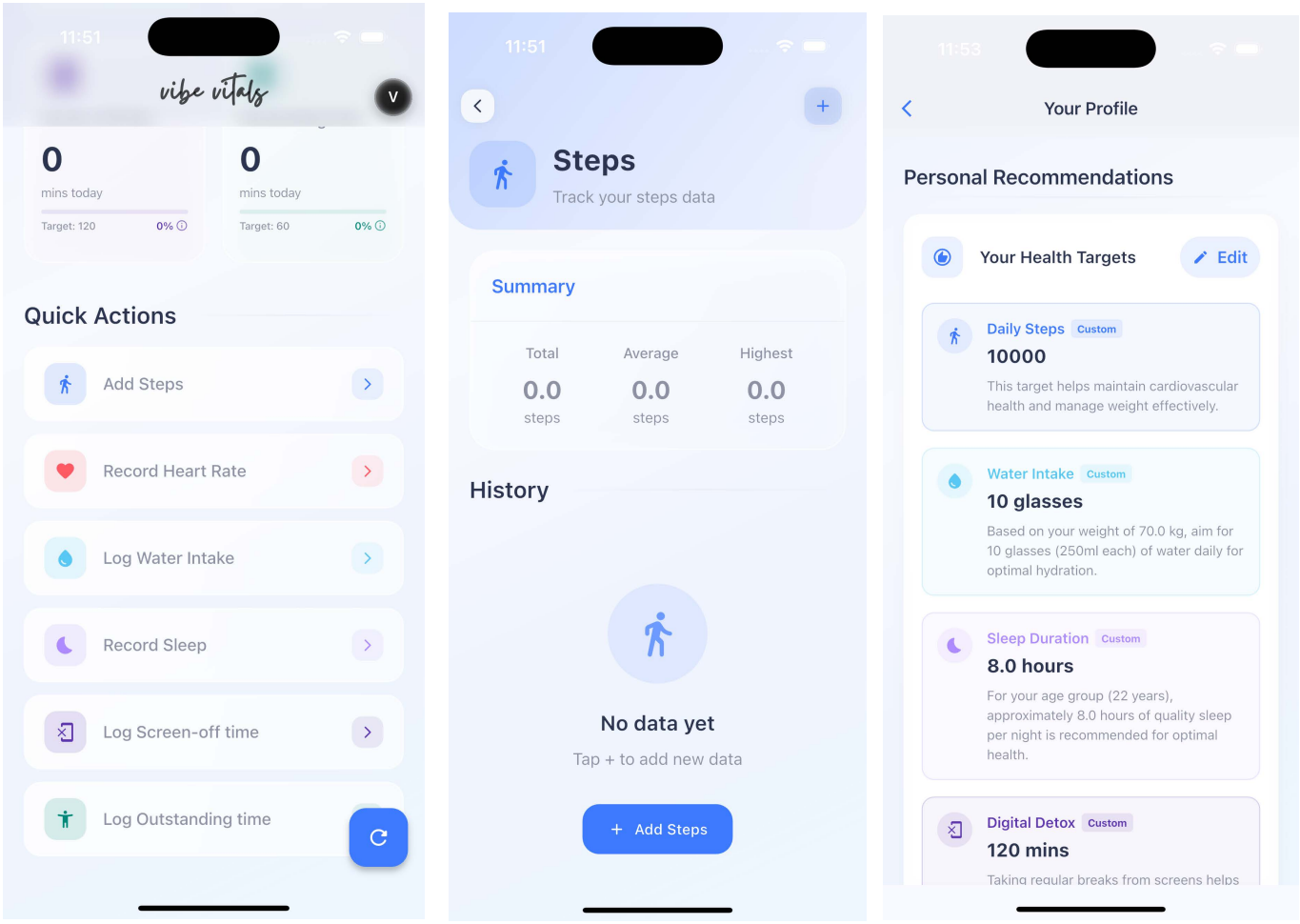




Allows users to view full details of a selected task. They can update or delete it as needed. This feature supports better task tracking and personal productivity.

- Form for creating/editing user details.
- Personalized forms tailored for user
- Date of birth picker and gender selection

3. Task List Screen



This screenshots display the quick actions, how steps are recorded and how personal reccomendations are done after user details are collected

- Quick action list gives you a list of activities to choose from
- Step tracking section helps track all user steps within the day.
- Personal recommendation helps app recommend things users can do to improve their healthy habits.

Reference:

Task Management Application Development Best Practices

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