



WeatherWeather: A Mobile Weather Application using Flutter and Firebase

A Documentation

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Department of Computer, Information Sciences and Mathematics

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CIS 2203 - Mobile Development

By

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Introduction

Due to the more concerning problems brought by climate change, the need for a real-time. and reliable weather information has never been more crucial. Whether you're planning your daily commute, outdoor activities, or simply staying informed, WeatherWeather is crafted to empower you with precise and relevant meteorological data. This is a simple mobile weather application that transforms complex weather data into intuitive, easy-to-understand visuals, making it accessible to users of all backgrounds. With a sleek and user-friendly interface, our app seamlessly integrates powerful features that cater to both weather enthusiasts and everyday users.

Personalized Weather Experience:

Understanding that each user has unique preferences and priorities, there's a range of customizable features to tailor each user's weather experience. From a personalized dashboard that adapts to your favorite locations to detailed forecasts that align with your daily routines, WeatherWeather ensures that the given information is what matters the most to the users.

Empowering User's Daily Decisions:

The importance of weather is more than just mere curiosity. It influences even on the smallest choices made every day – from what to wear to how to plan each of our schedules. This gives us the knowledge needed to make informed decisions, whether it's carrying an umbrella, scheduling outdoor activities, or preparing for temperature fluctuations.

Features

1. **Login and Sign-Up** | Users can create accounts for an enhanced and personalized experience, unlocking additional features and settings tailored to individual preferences.
2. **Dashboard or Daily Weather Forecast** | The dashboard serves as a dynamic hub, providing users with at-a-glance access to real-time weather data for their chosen locations. It offers a comprehensive snapshot of the day, including sunrise and sunset times, minimum and maximum temperatures, pressure, humidity, and windspeed – all crucial elements for planning day-to-day activities.
3. **5-Day Forecast** | Plan your week with confidence using our 5-day forecast feature. Anticipate weather trends, be it sunshine or rain, and make informed decisions for the days ahead.

Analysis and Design

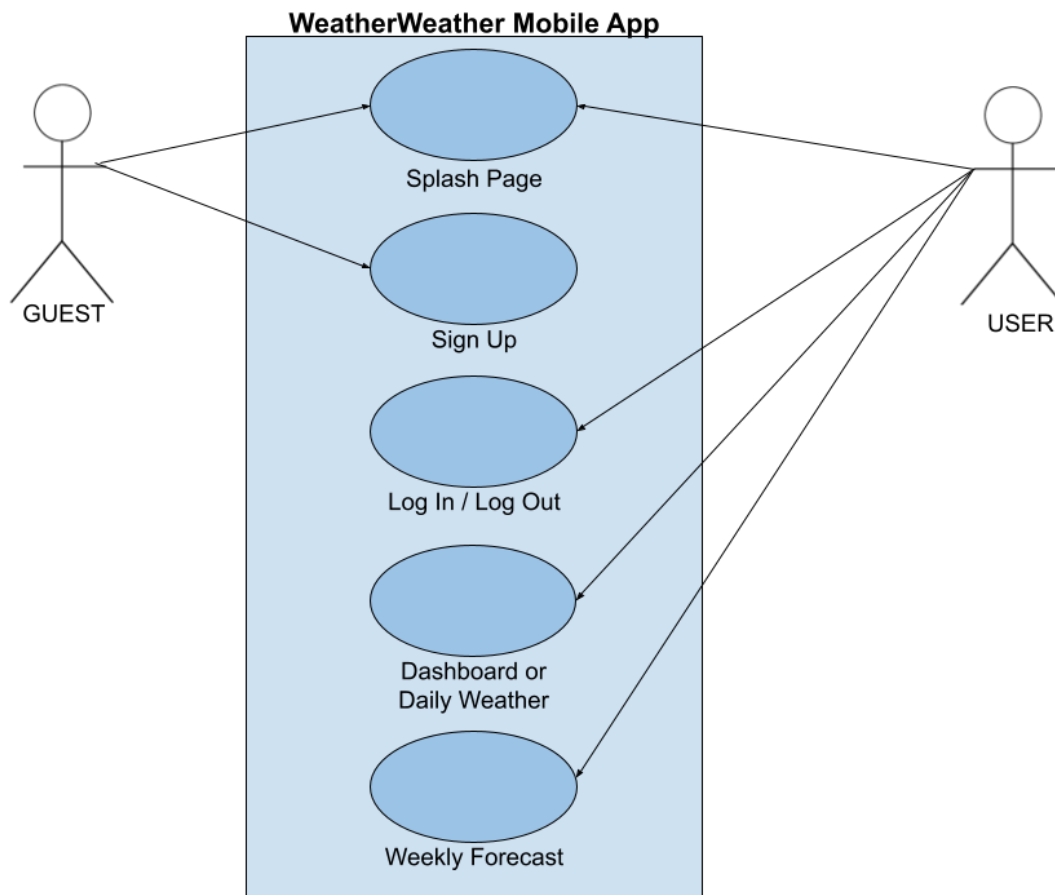


Figure 1.1. Use Case Diagram

Table 1.1

Use Case Description of WeatherWeather

Use Case Name:	WeatherWeather
Brief Description:	WeatherWeather - General Overview of the System
Personas:	User, Guest
Precondition:	Opened the mobile application on a compatible phone
Post-Condition:	The user successfully opens the application
Main Flow:	<ol style="list-style-type: none">I. Splash PageII. Sign UpIII. Login/LogoutIV. Dashboard

	V. Daily Weather VI. Weekly Forecast
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Table 1.2

Use Case Description of Splash Page

Use Case Name:	Splash Page
Brief Description:	Both users open the application
Personas:	User, Guest
Precondition:	Opened the mobile application on a compatible phone
Post-Condition:	The user successfully opens the application
Flow of Activities:	1. Open the application from a compatible phone
Alternative Flow:	1.1. If a logo is shown in the screen, then it will lead to the sign up page 1.2. Else, find a compatible phone for use

Table 1.3

Use Case Description of Sign Up

Use Case Name:	Sign Up
Brief Description:	A guest user signs up or registers for an account
Personas:	Guest
Precondition:	The user must be in the sign up page
Post-Condition:	The user is registered in the system
Flow of Activities:	1. Input all required text fields 2. Click sign up button or 3. Click sign up with Google Account button
Alternative Flow:	1.1. If not all text fields are inputted, an error message will be prompted and the sign in will be unsuccessful. 1.2. If the text fields contain invalid input, an error message will be prompted, and the sign in will be unsuccessful. 1.3. If the user wants to cancel signing up, click on Continue as Guest button.

Table 1.4

Use Case Description of Log In/ Log Out

Use Case Name:	Log In / Log Out
Brief Description:	A registered user logs in to the system and logs out to the system
Personas:	User
Precondition:	The user must already have an account. The user must be in the Login page.
Post-Condition:	The user successfully logs in to the system.
Flow of Activities:	<ol style="list-style-type: none"> 1. Input all required text fields – email and password. 2. Click Log in button. or <ol style="list-style-type: none"> 3. Click Sign in with Google button.
Alternative Flow:	<p>2.1 If not all text fields are inputted, an error message will be prompted and the sign in will be unsuccessful.</p> <p>2.2 If the text fields contain invalid input, an error message will be prompted and the sign in will be unsuccessful</p>

Table 1.5

Use Case Description of Dashboard or Daily Weather

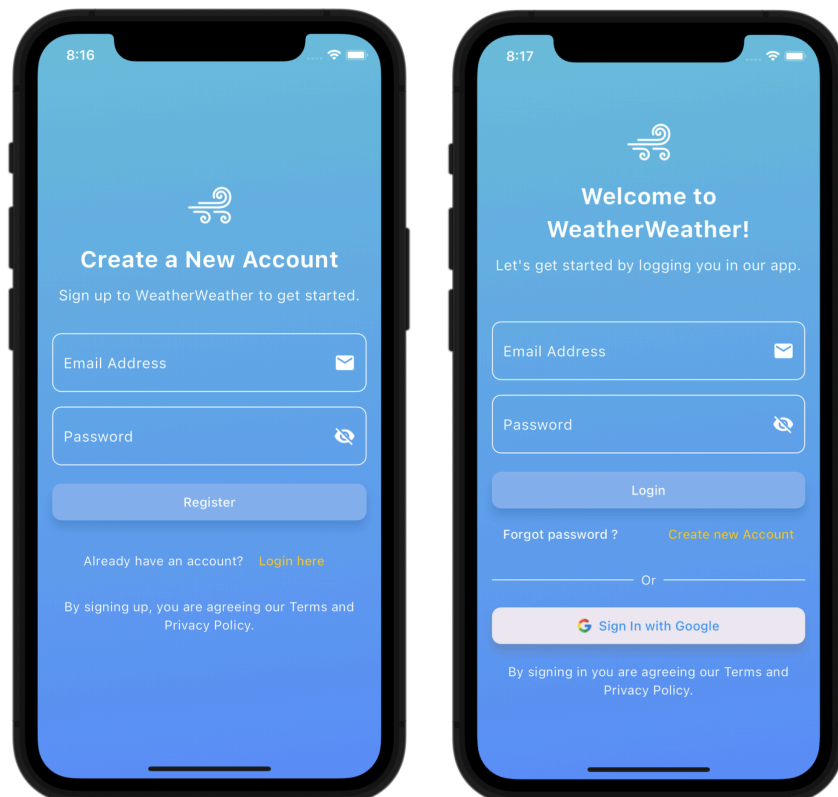
Use Case Name:	Dashboard or Daily Weather
Brief Description:	User first see this comprehensive snapshot of the day, including sunrise and sunset times, minimum and maximum temperatures, pressure, humidity, and windspeed.
Personas:	User
Precondition:	The user successfully log in to the system
Post-Condition:	
Flow of Activities:	<ol style="list-style-type: none"> 1. Open the application from a compatible phone
Alternative Flow:	<ol style="list-style-type: none"> 1.1. If a logo is shown in the screen, then it will lead to the sign up page 1.2. Else, find a compatible phone for use

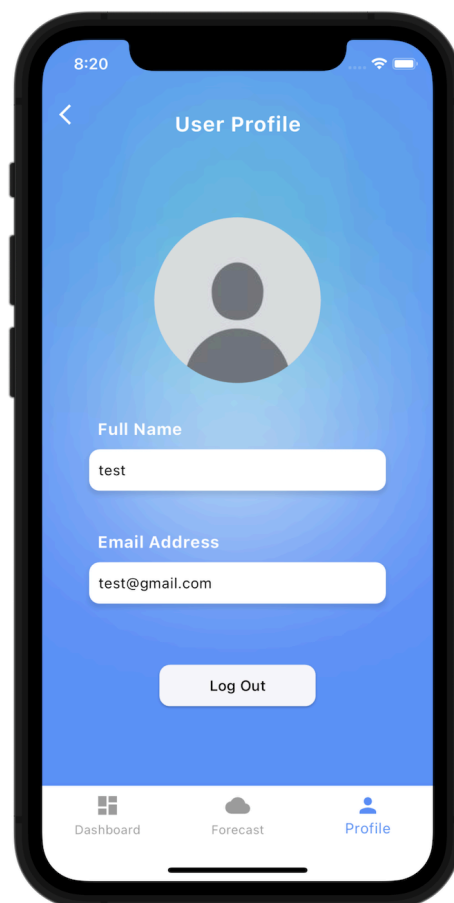
Table 1.6

Use Case Description of Weekly Forecast

Use Case Name:	Weekly Forecast
Brief Description:	User sees a comprehensive 5 Day Forecast by precipitation level along with the cloudiness, humidity, windspeed and pressure percentage of the day.
Personas:	User
Precondition:	The user successfully log in to the system.
Post-Condition:	
Flow of Activities:	1. Open the application from a compatible phone
Alternative Flow:	1.1. If a logo is shown in the screen, then it will lead to the sign up page 1.2. Else, find a compatible phone for use

Screenshots





Test Accounts

- Email: test@gmail.com | Password: test123

Github Repository link:

<https://github.com/baristabarita/Weather-Weather.git>