

Code in Github : <https://github.com/mdanwarulkarim/Student-Reminder-App/tree/master>

Project report : <https://github.com/mdanwarulkarim/Student-Reminder-App/tree/main>



KULLIAH OF INFORMATION AND COMMUNICATION TECHNOLOGY

MOBILE APPLICATION DEVELOPMENT

INFO 4335 SEC: 02

LECTURER: MOHD KHAIRUL AZMI BIN HASSAN

Topic: Student Reminder App Report

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Introduction

Project Name: Student Reminder

Student Reminder is the name of our smartphone software that assists students in creating schedules for their daily activities. Being productive begins with proper planning and organizing the working process, as well as selecting the greatest to-do lists, where students may utilize fantastic to-do lists as insert applications for planners or as standalone productivity tools to get things done.

Objectives

1. To more productive at work and in life
2. To see weather updates and time management.
3. To keep track of everything on one app.
4. To organize an hourly schedule anything with anyone, anywhere
5. To tasks, schedule and use time wisely.

Features and function

1. Weather update
2. Easy to log in or register to the app
3. Authentication and keeping user data in the database:
4. Easily group and filter tasks
5. Easy to create a to-do planner.
6. Task saves with Calendar
7. User-friendly app easy to browse.

Target Audience

Our main target is students who are studying in colleges and universities. Other than that, since most of the users only use either android operating system or ios in the campus, therefore this project will be targeting users with android operating system and later if students use it we will work on ios operating.

Specific Platform

The plan is to develop an Android application using the Flutter development tool.

Scope

1. write the task name
2. Select the task type from the list (Inbox, Personal, Study, Work).
3. It will show up on the home page.
4. Select the due date for the task.
5. Users simply select the day (e.g., today, tomorrow, Tuesday).
6. Completed tasks can be cleared.

Google Authentication

Firebase Authentication builds a secure application by providing a sign-in method for the user. It provides end-to-end identity solutions such as email and password accounts, phone auth, and Google . The aim of using this is to authenticate users and allow them access to the functions of the device.

Google Firestore

Cloud Firestore is a versatile and scalable mobile development database. It supports real-time databases, which synchronise user data across client applications. In addition to storing user information, Firestore will also store user information.

Google Firebase

Not like a typical SQL database, which employs SQL to store each piece of data in a table's columns and rows. Each piece of data in Cloud Firestore is stored in documents and collections format. Each document has a collection of key-value pairs that may be used to retrieve data. Cloud Firestore is specially designed for storing many tiny documents. Android mobile phone with Wi-Fi Chip A smartphone with Android and basic Wi-Fi or data connectivity is required for this project. This device is required to access and use the mobile application.

Plugin use :

GetX :Open screens/snackbars/dialogs without context, manage states and inject dependencies easily with GetX mainly used state management .

Shared_preferences : It used for profile data such as settings like this data store and save offline.

Firebase auth : it is used for user authentication passwords, phone numbers, and identity providers.

Cloud_firestore : this Cloud Firestore is used for a noSQL database with live synchronization and offline support on Android.

Intl : this plugin in used for date formatting and number formatting and parsing, bi-directional text.

Share_plus : this plugin for sharing content via the platform share UI, using the ACTION_SEND intent on Android.

Image_picker : This plugin for selecting images from the Android image library, and taking new pictures from the mobile device.this plug in use in profile.

Register/Sign Up

This use case enables the user to create an account using an email address and a password for usage in the StudentReminder application. This information will be saved in a database and accessible later.

Login

The login page will let users key in their registered email and password, which will then be validated by the application. If email and password match, it will let users access application features.

Forgot Password

If a user forgets his password, he can reset his password using email .

Home page

The user see the weather update on the home page, and if he clicks on it, he can view the complete details of the day's weather. In addition, the user may observe the time, as well as the weather. Then there's another widget that's all about task management. A task created by a user will appear on the main page. There is a notice bar in the right corner that is used to check whether the user missed an update task.

Todo Planner (add)

The "add" button allows students to simply create tasks. There are four boxes: the first box is where the user enters the title, the second box is where the user selects a date and time, and the fourth box is where the user enters the information. When you're finished, hit the save button, and the user will be sent to the home page. The specifics of the job will be shown once the user clicks on it.

Profile

There are various options on this profile page. First, the user edits his profile; second, the user sees his name and gender under the profile. There are four pages below.

All tasks: A user can see all his tasks directly from his profile .

Privacy Policy : This page vital to let these users know how we will collect, use, and protect their data.

Settings : there are some features included in the settings pages, such as share with friends, theme mode, and contact us .

Logout : The profile page has a logout option, so if a person logs out, he will be sent to the registration page.

Description Requirements

Processor Octa core (2.2 GHz, Quad core, Cortex A73 + 1.7 GHz, Quad core, Cortex A53)

Chipset Hisilicon Kirin 710 to 850

Operating System: EMUI 8.2

Ram 4.0GB

Internal Storage 128GB

Android Studio

First fill in every detail or information, including permission for the device, preferred directory to install, suitable theme name, screen resolution, and screen orientation.

Secondly, ensure all the flutter dart files are located in the side window. If needed, turn on debugging mode to look for errors. Click on the play button to activate the debug process.

Thirdly, make sure the debugging mode inside the device has been enabled; otherwise, the developer will not be able to access the device. Connect the device to the computer using a suitable cable.

Development Methodology

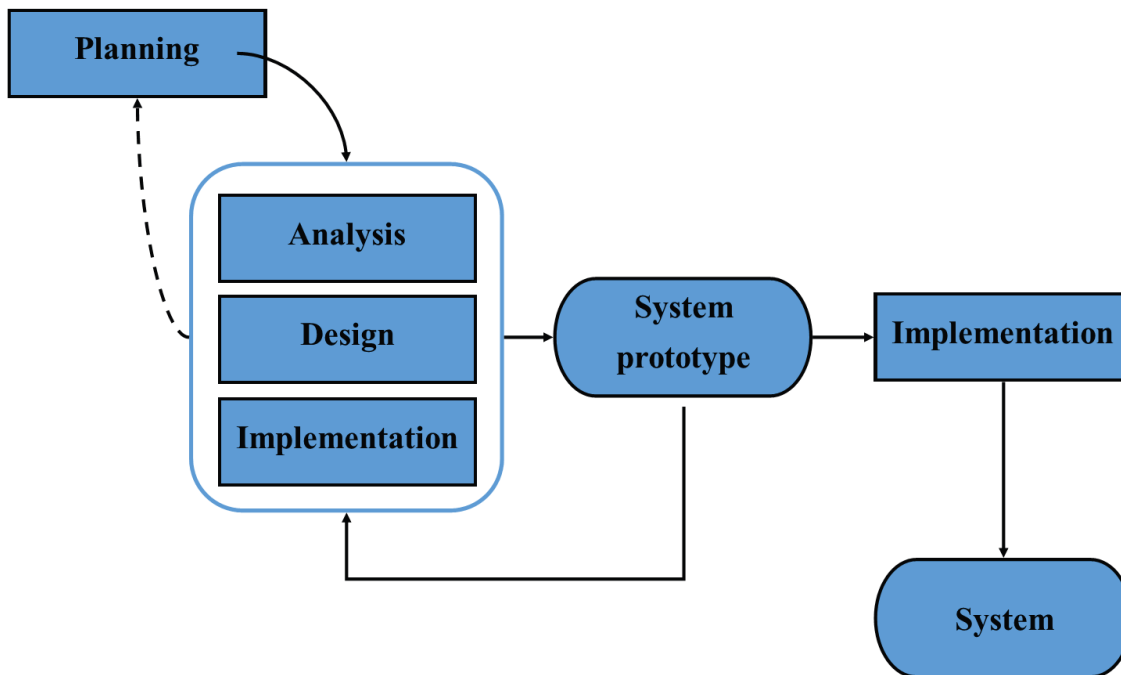


Fig : Systems Development Methodology (SDM)

A prototyping-based development process has been selected for this project's development. In this prototyping model, a paradigm output is built, tested, and revised according to the Systems Development Methodology (SDM). Planning, analysis, design, prototype implementation, and system implementation are the five steps of this process. System prototyping is carried out in conjunction with the other stages of the design, analysis, development, and implementation cycle. Once the user-specified objective is reached, the loop will stop. In the System Prototype phase, we construct a reduced version rapidly that meets the basic minimal requirements of the user required and allows users to test and review it. We will have the opportunity to provide our thoughts on any difficulties or concerns user can see, as well as to send feedback to the developer. A second prototype will be developed based on user input, and it will have fixes for any problems that were discovered in the first prototype as well as new functionality.

Activity Diagram

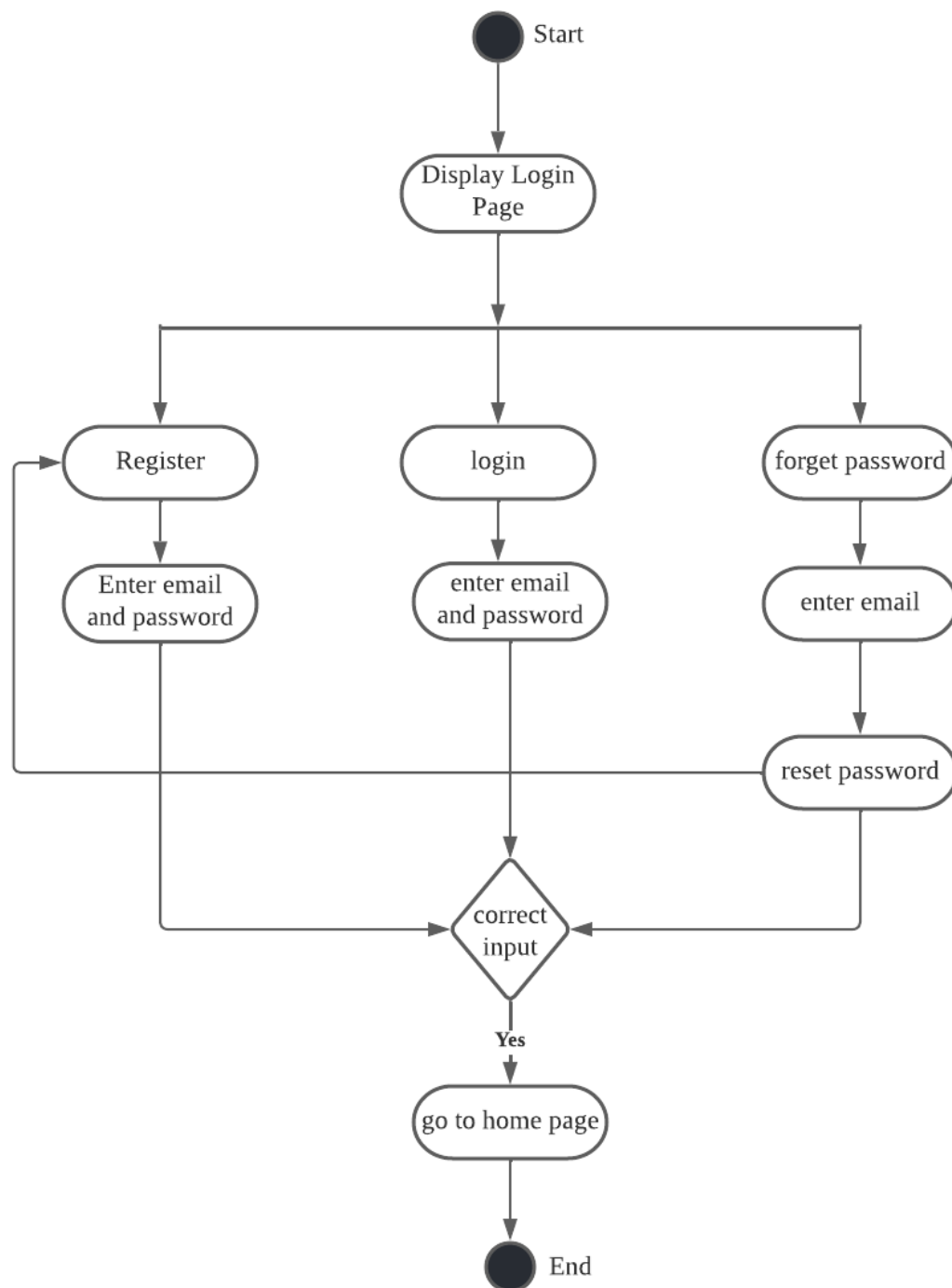


Fig : Activity diagram register/login

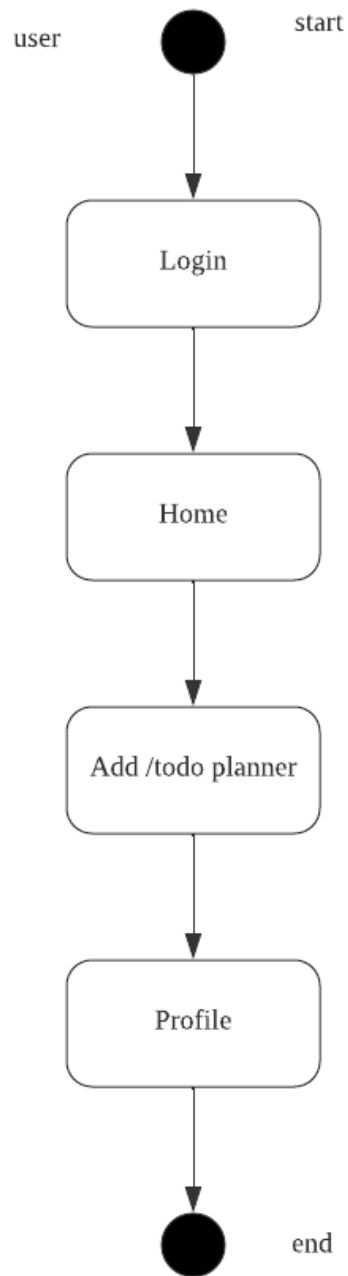
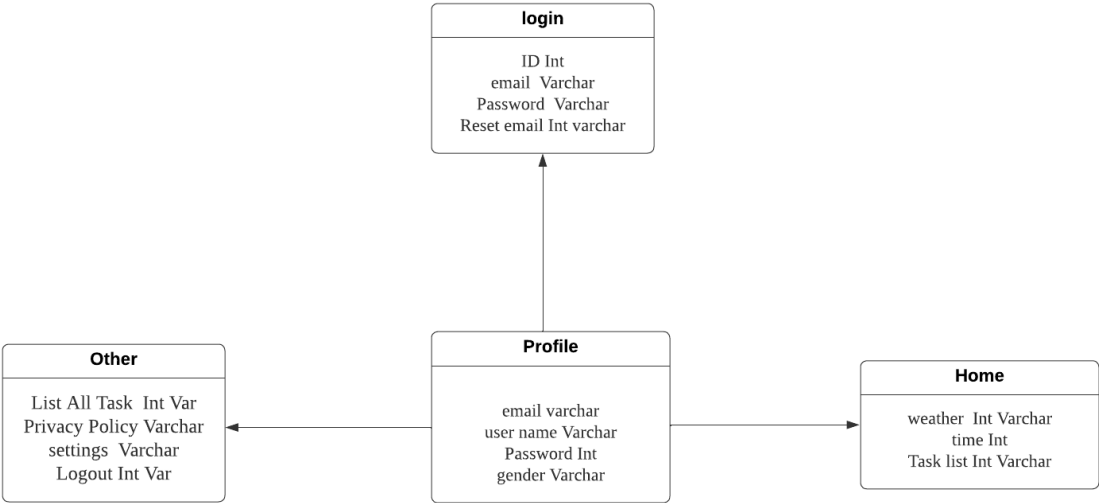


Fig : Activity diagram log in to profile

Entity diagram



Use Case Diagram:

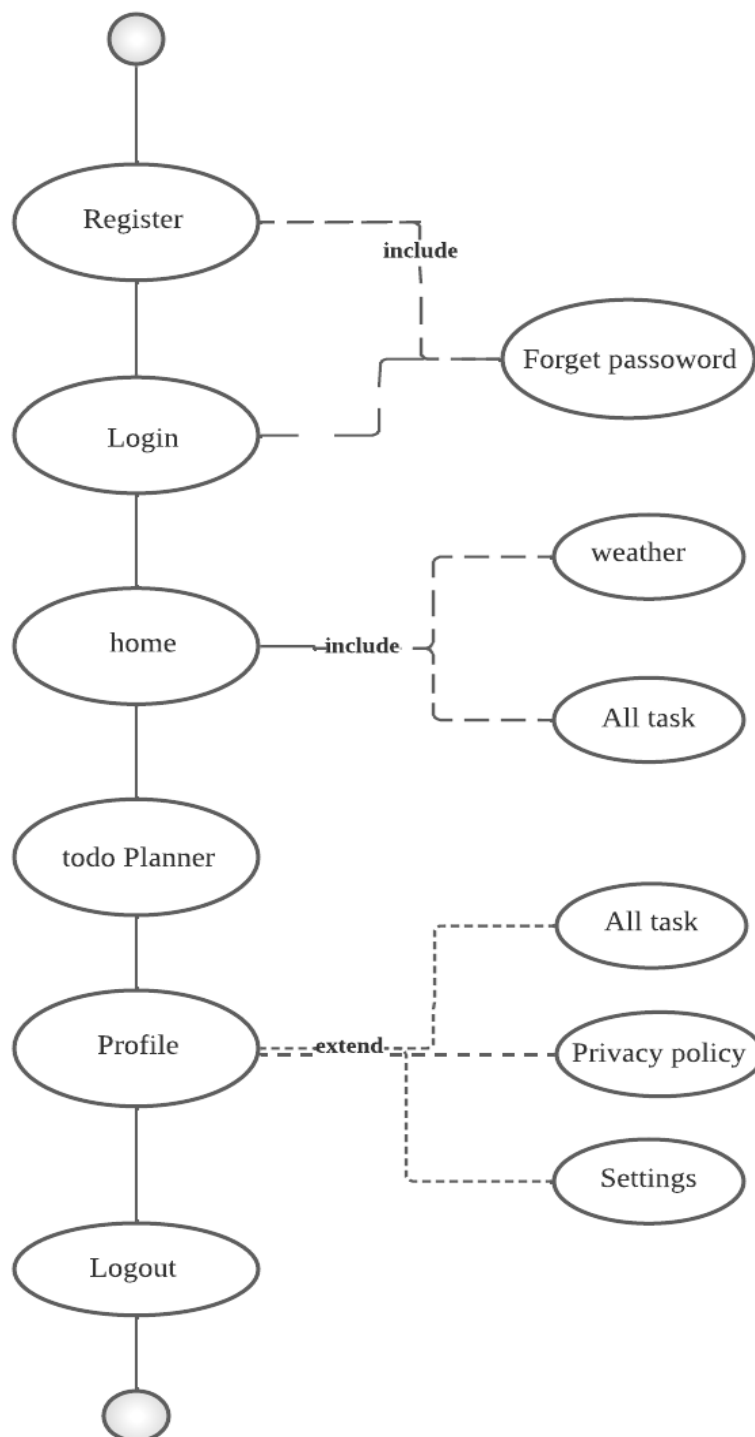


Fig: Use case diagram

Sequence diagram

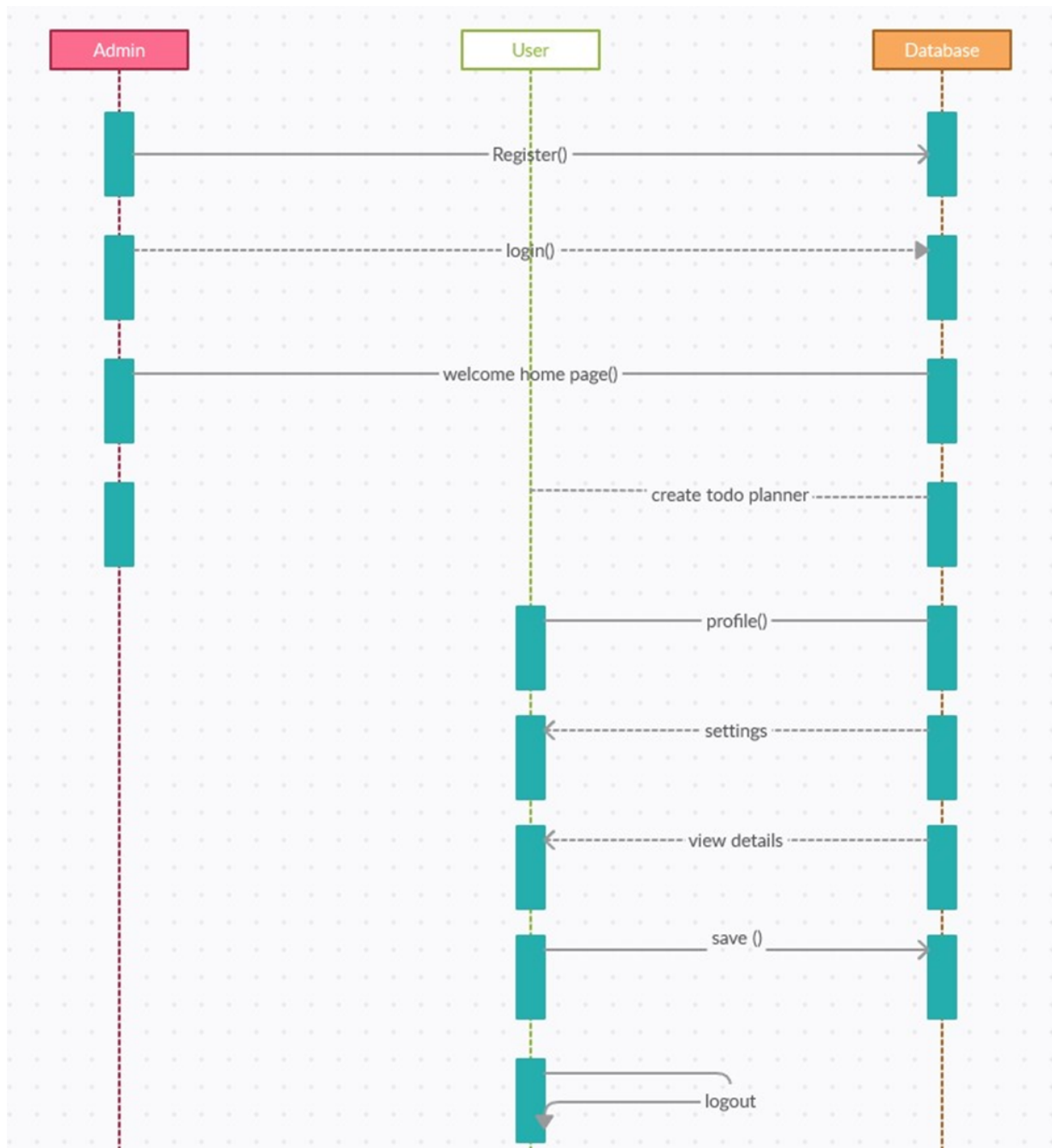
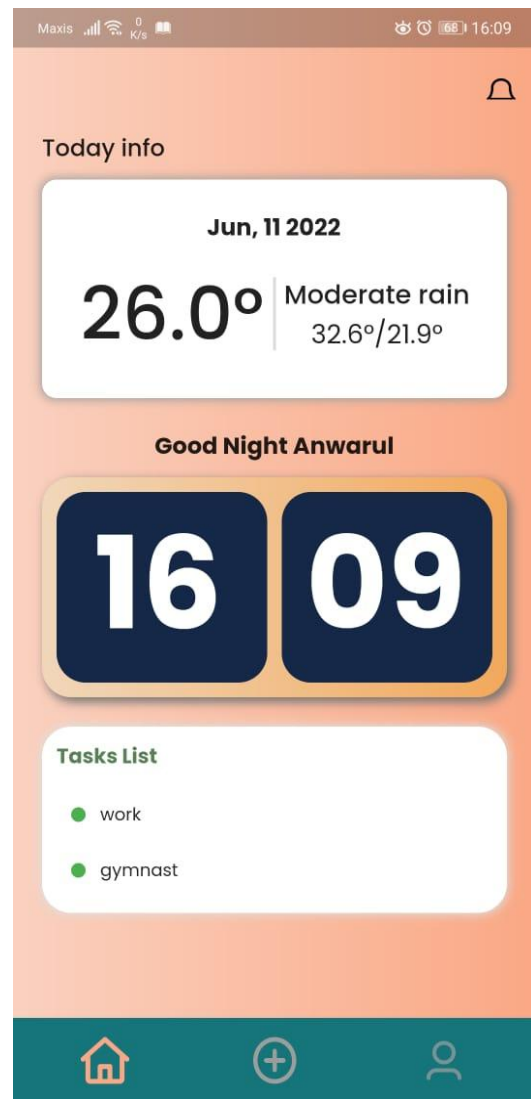
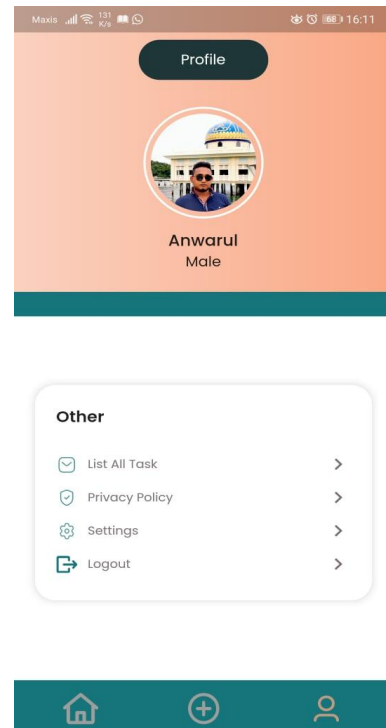
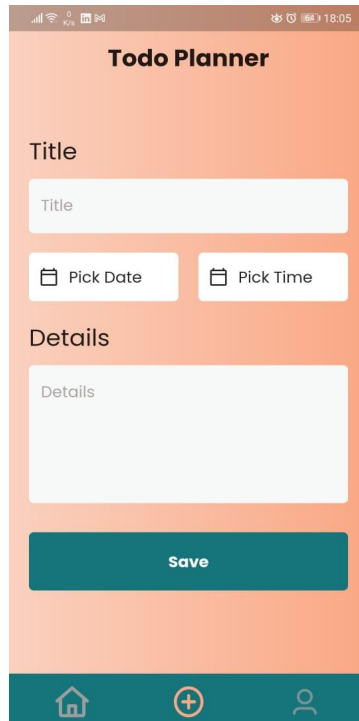
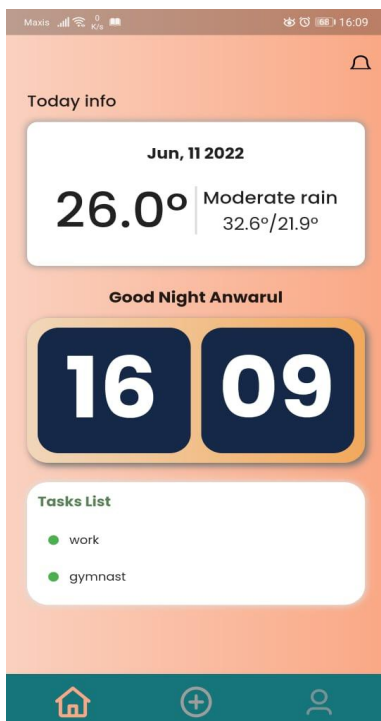
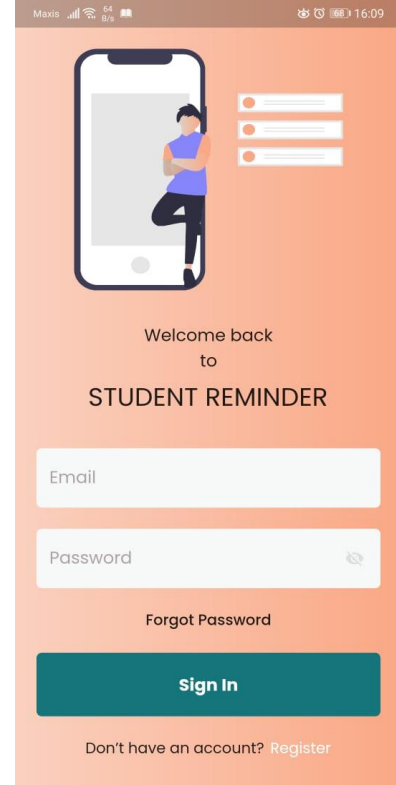
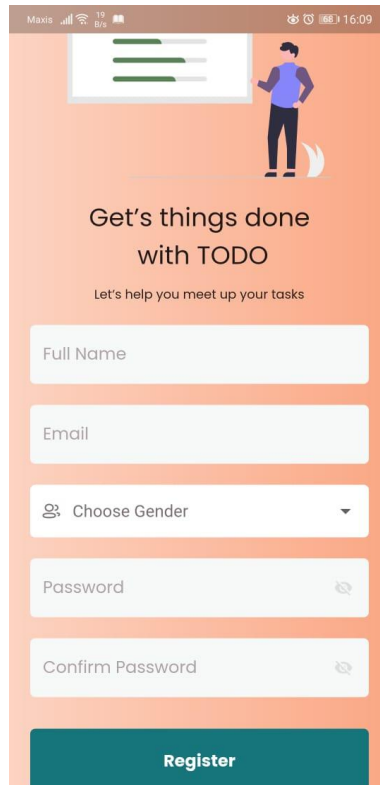
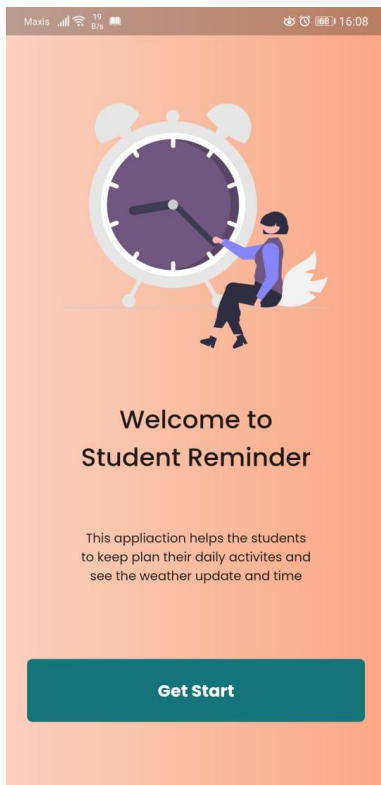


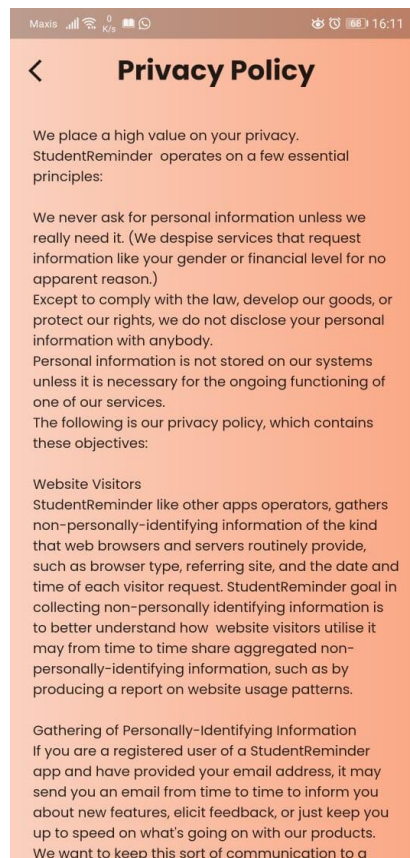
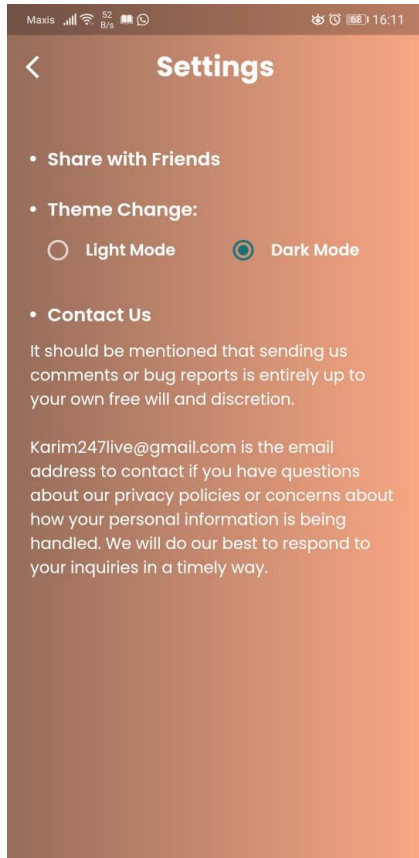
Fig: Sequence diagram

In the prototype design we changed our home page widget before its looks like this. Then we changed the weather widget it give weather update and remove second from the tiem option.the rest ok .



Now we have already implemented the code and here is the output application page.





Conclusion

Student Reminder applications are an essential part of the workday. This became famous due to its ease of use and efficiency. This tool allows users to examine the whole backlog of jobs and the user's roadmap at a glance. To coordinate their personal workload as well as the workflow of all students, users may utilize a student's to-do planner on one page to highlight the priority tasks and rank them according to their level of relevance.