

Medicine Alert and Reminder System (MARS)



Team Number: 16

Team Members:

- Paresh Sudin Kasare - 39
- Harish Kolla - 44
- Sreeya Reddy Daripalli - 18
- Ravali Nalla - 59

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Introduction

Medicine Alert and Reminder System is the system which provides the complete system for medicine management. It helps users to add their medicines with the recommended time and the app will remind to take medicines on specific time. If a medicine must have a minimum gap of hours, then app will remind of the next dosage of medicine after recommended gap between two dosages.

For more detailed information go through the Increment-I Documentation:

https://github.com/pareshkasare/ASE_Project/blob/master/Documentation/Increment-1%20Report.pdf

Increment Objectives

OBJECTIVES:

The main aim of this phase is to provide an overview of the project and the tasks that are completed till third increment.

Features of Third Increment

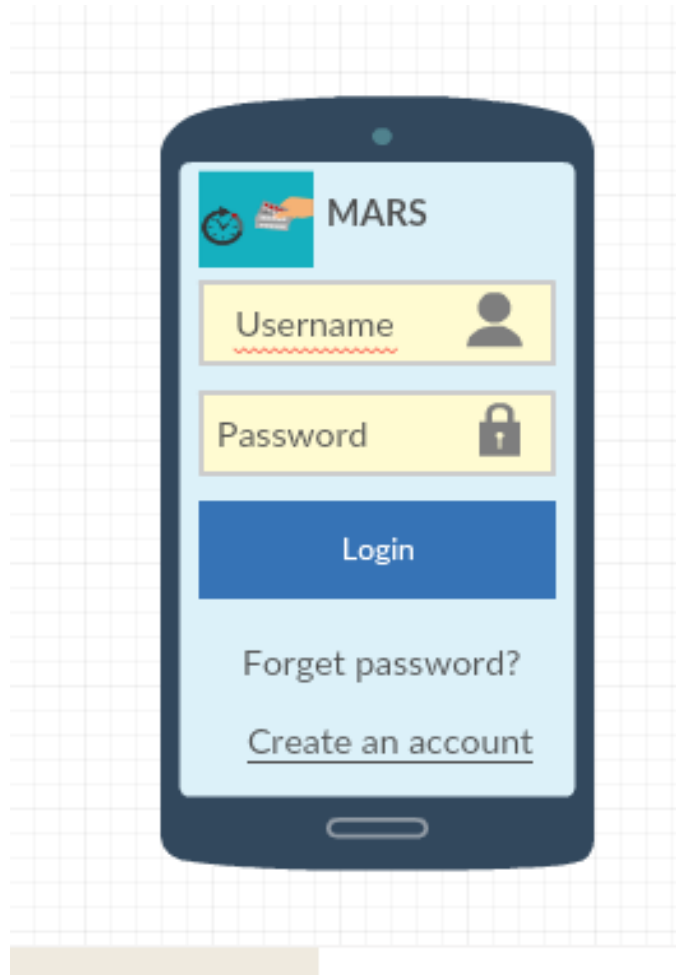
Features we are deploying are:

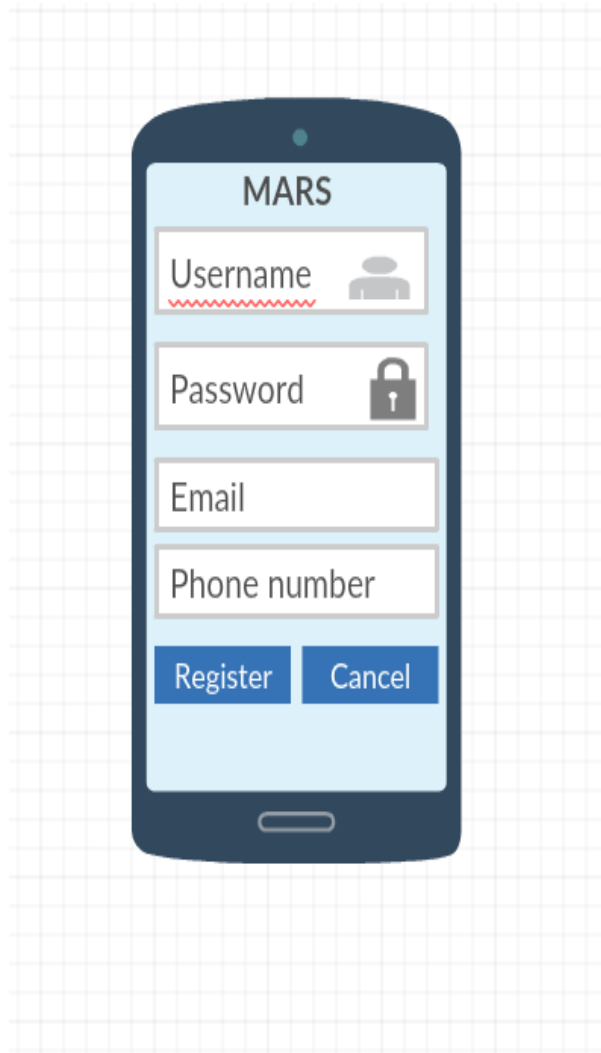
- Add notifications per day
- Display medicines
- Delete alarm manager in update activity
- Delete medicine
- Change medicine schedule
- Increase/Decrease medicine quantity

Detailed Design Features (Wireframes & UML)

First Increment:

Login Wireframe:



Register Wireframe:

Second Increment:

MainActivity Wireframe:



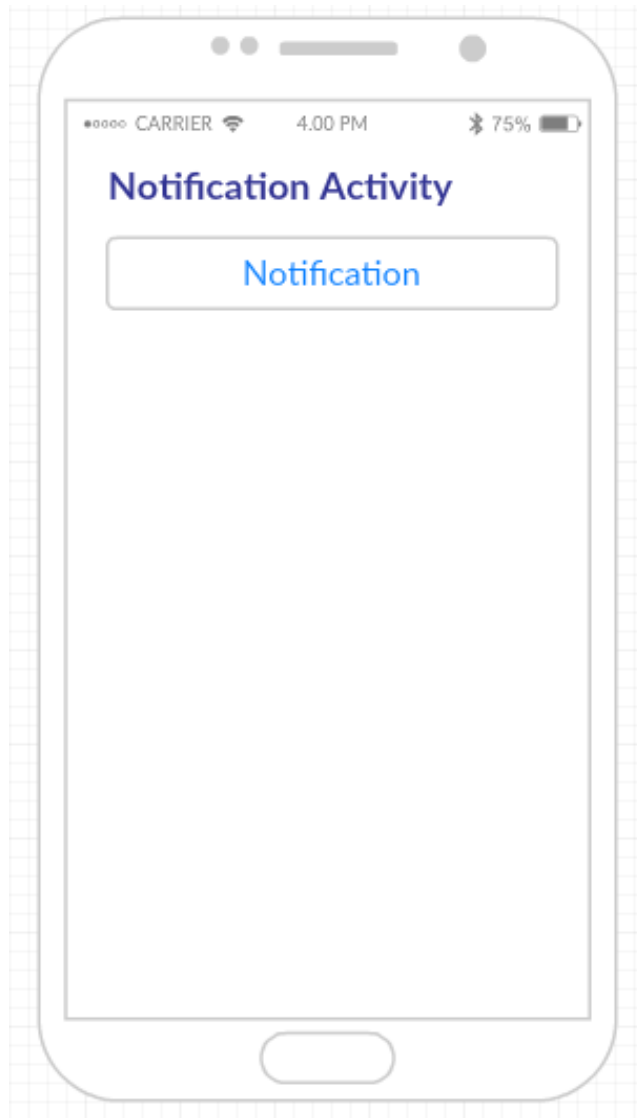
AddActivity Wireframe:

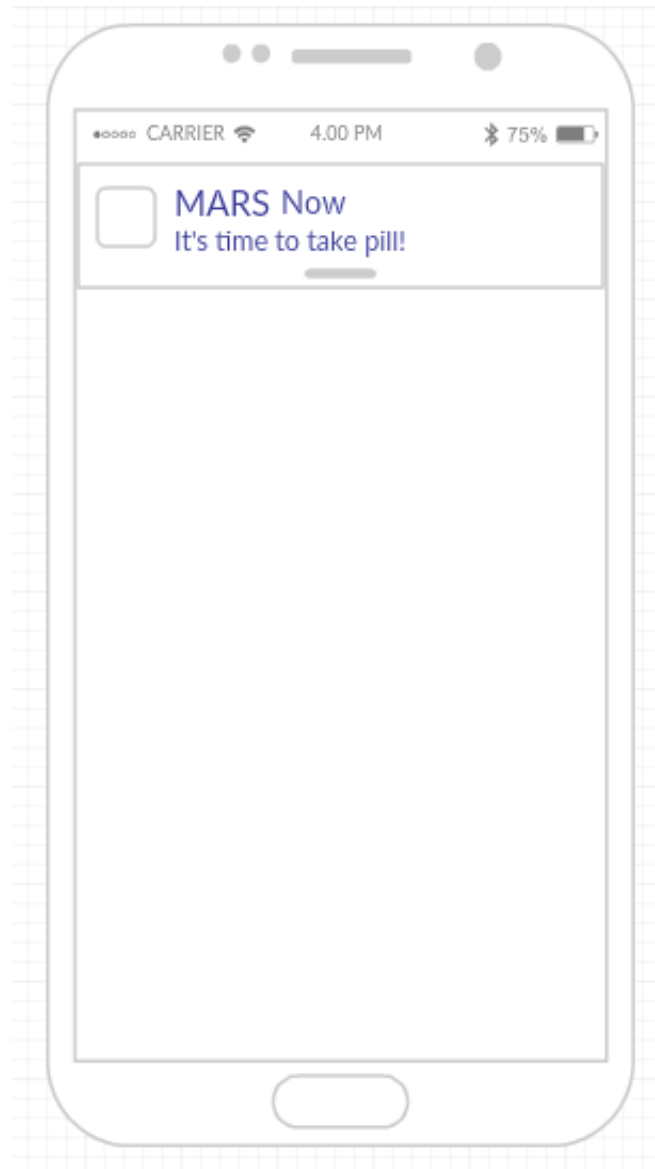
The wireframe illustrates a mobile application interface for adding a new activity. The screen is titled "Add Activity" and features a status bar at the top showing "CARRIER", "4:00 PM", and "75%" battery. The form includes the following elements:

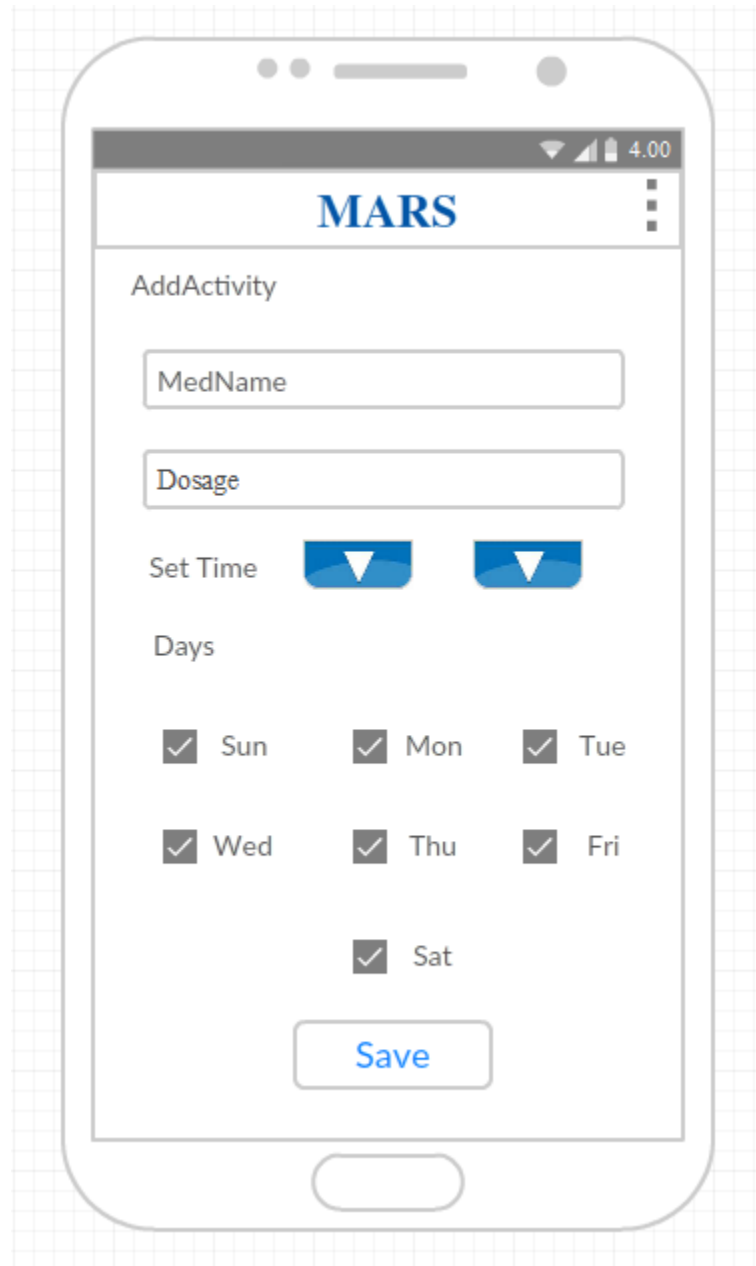
- Medicine Name:** A text input field.
- Dosage:** A text input field.
- From Date:** A date picker with three dropdown menus.
- To Date:** A date picker with three dropdown menus.
- Set Time:** A time picker with three dropdown menus.
- Day:** A list of days with checkboxes:
 - ☐ Sunday
 - ☐ Monday
 - ☐ Tuesday
 - ☐ Wednesday
 - ☐ Thursday
 - ☐ Friday
 - ☐ Saturday
- Save:** A button to submit the form.

UpdateActivity Wireframe:

The wireframe illustrates the 'Update Activity' screen within a mobile application. At the top, a status bar shows 'CARRIER', signal strength, time '4:00 PM', and battery level '75%'. The screen title is 'Update Activity' in blue, with an 'Edit' button to its right. Below the title, there are three text input fields for 'Medicine Name', 'Dosage', and 'Medicine Type'. Following these are three date/time pickers for 'From Date', 'To Date', and 'Set Time', each represented by a 3x3 grid of buttons with downward arrows. A 'Day' section contains a list of days from Sunday to Saturday, each preceded by an unchecked checkbox. At the bottom, there are two buttons: 'Update' and 'Delete'. The entire interface is set against a light gray grid background.

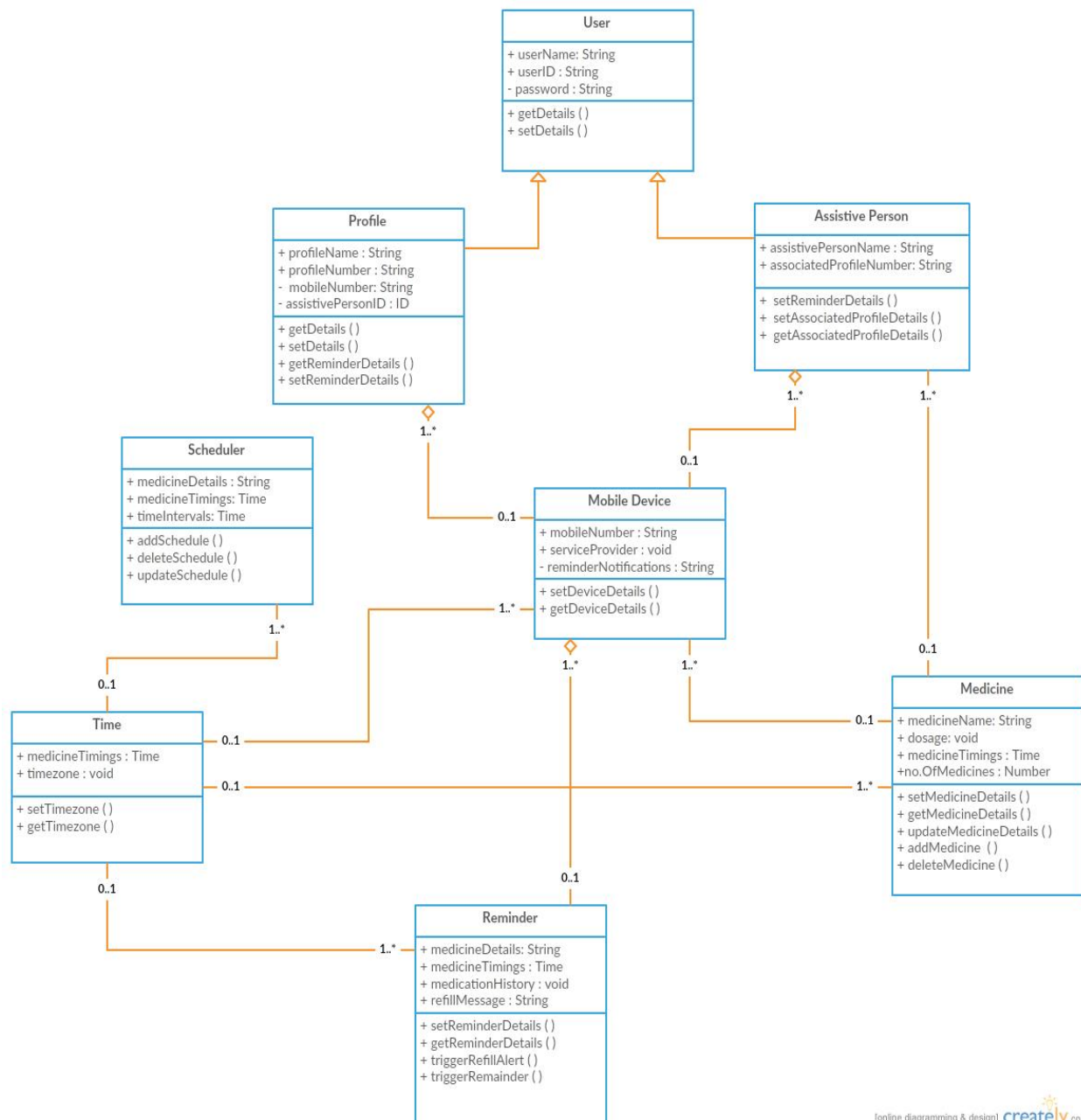
NotificationActivity Wireframe:

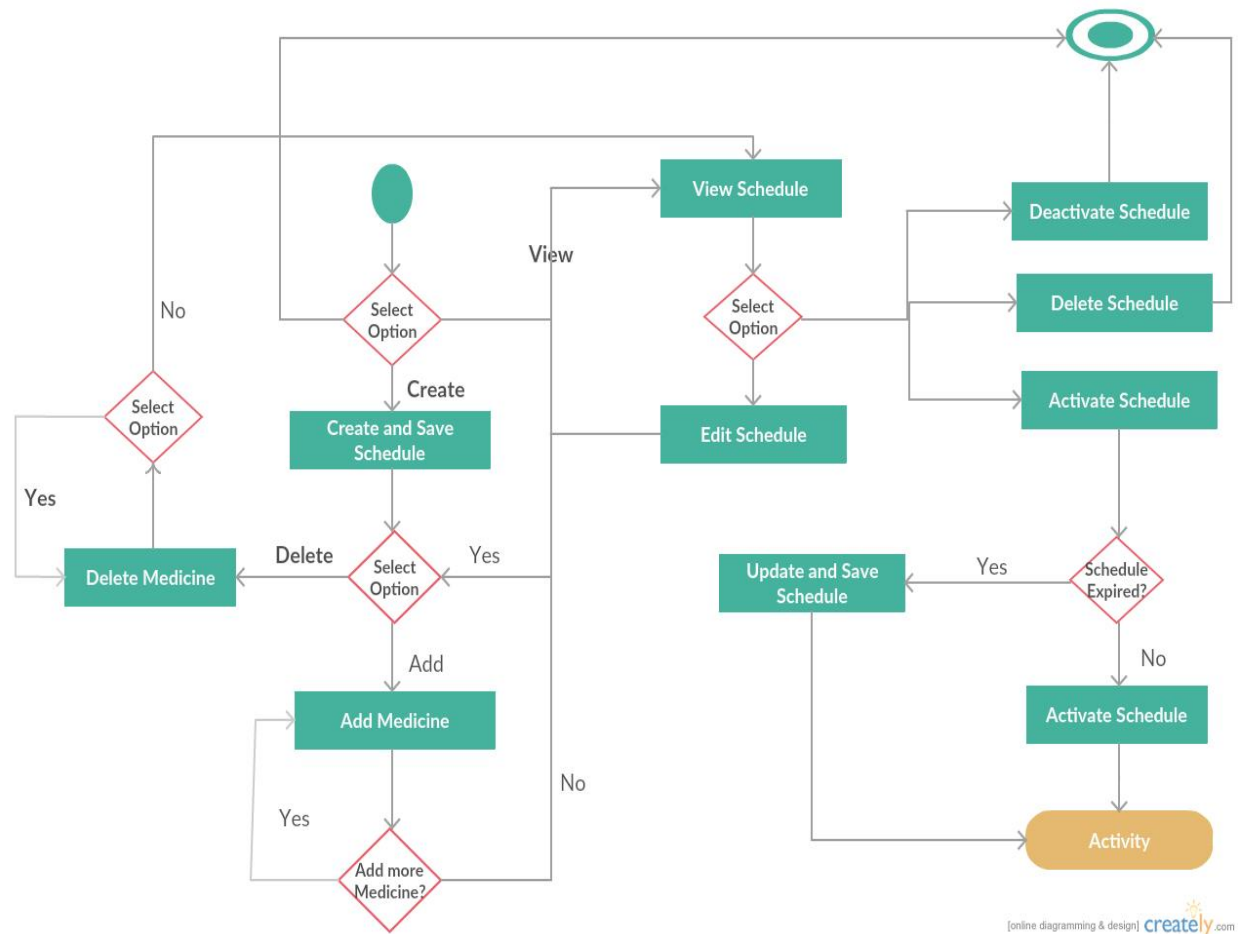


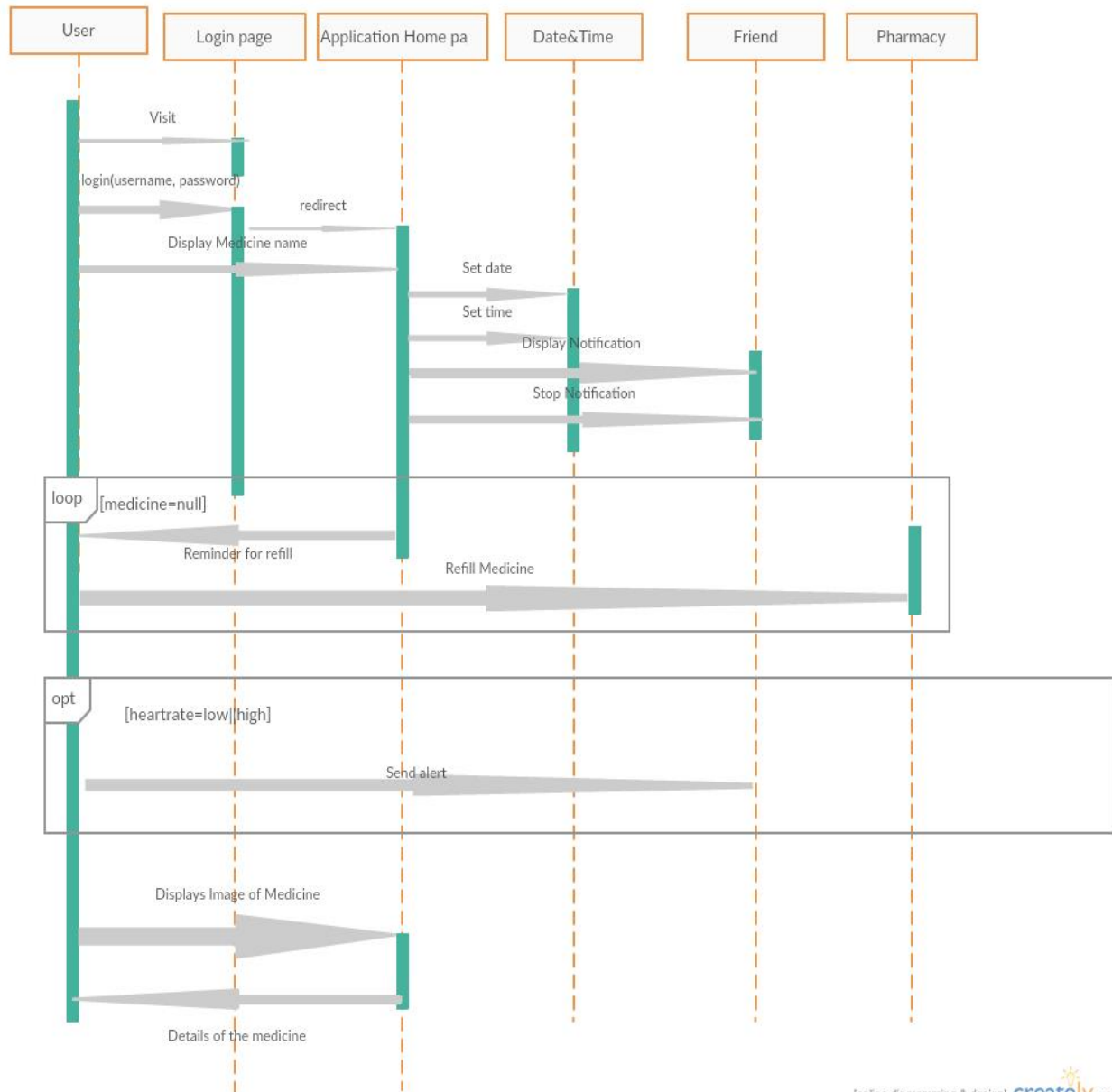
Third Increment:**Updated the AddActivity and UpdateActivity Wireframes:**

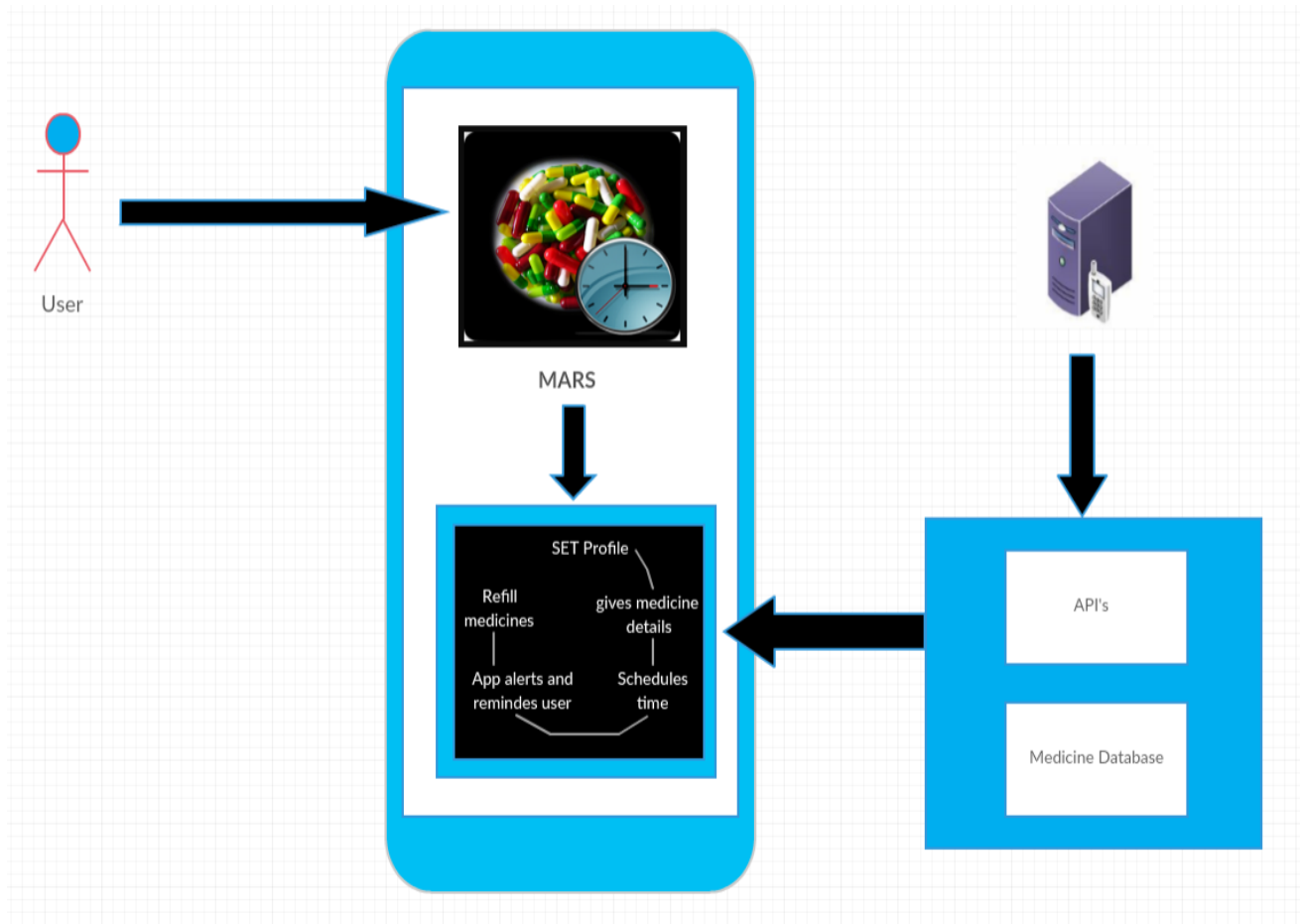
The image shows a mobile application interface for a system named "MARS". The app is running on a device with a status bar at the top showing signal strength, battery level, and the time 4:00. The app's title bar displays "MARS" and a menu icon. The main screen is titled "UpdateActivity" and contains the following elements:

- Two text input fields labeled "MedName" and "Dosage".
- A "Set Time" section with two blue dropdown menu icons.
- A "Days" section with checkboxes for each day of the week: Sun, Mon, Tue, Wed, Thu, Fri, and Sat. All checkboxes are currently checked.
- Two buttons at the bottom: "Update" and "Delete".

First Increment(UML):**Class Diagram:**

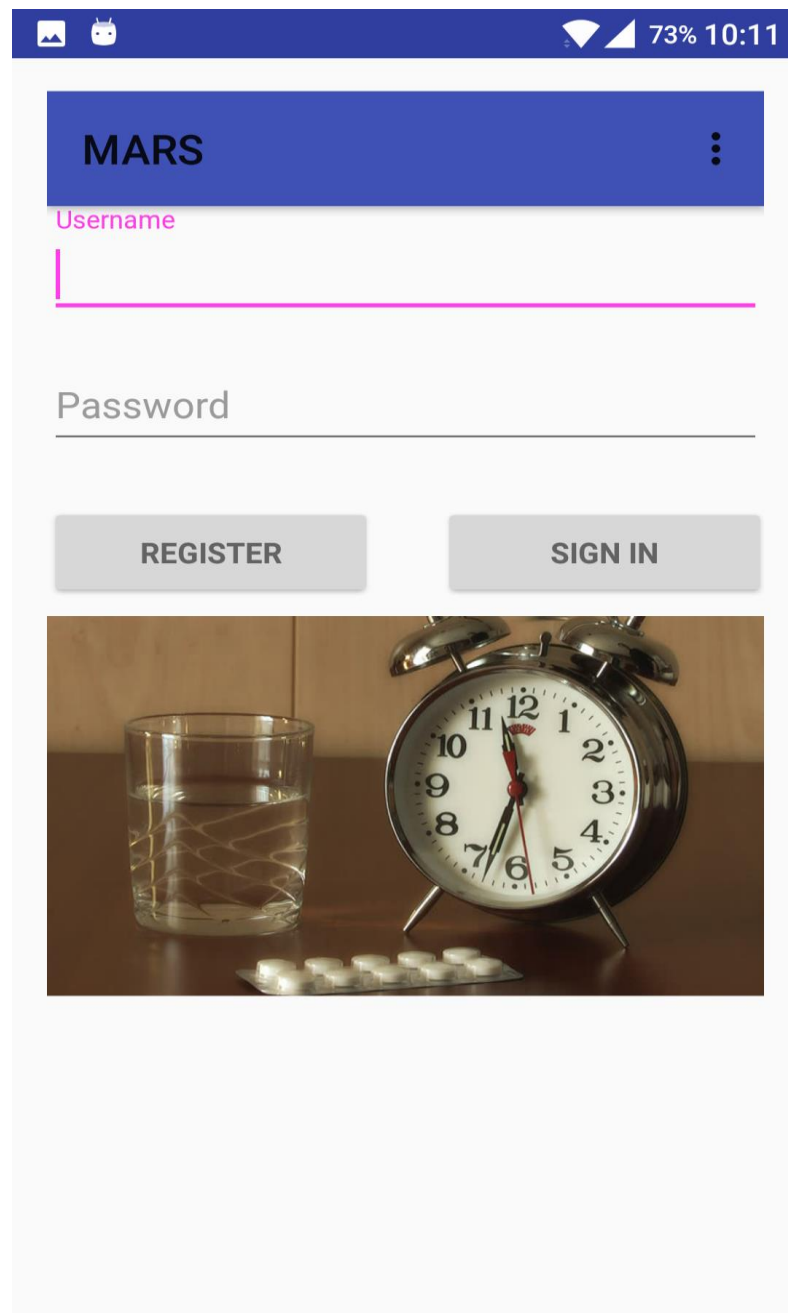
Activity Diagram:

Sequence Diagram:

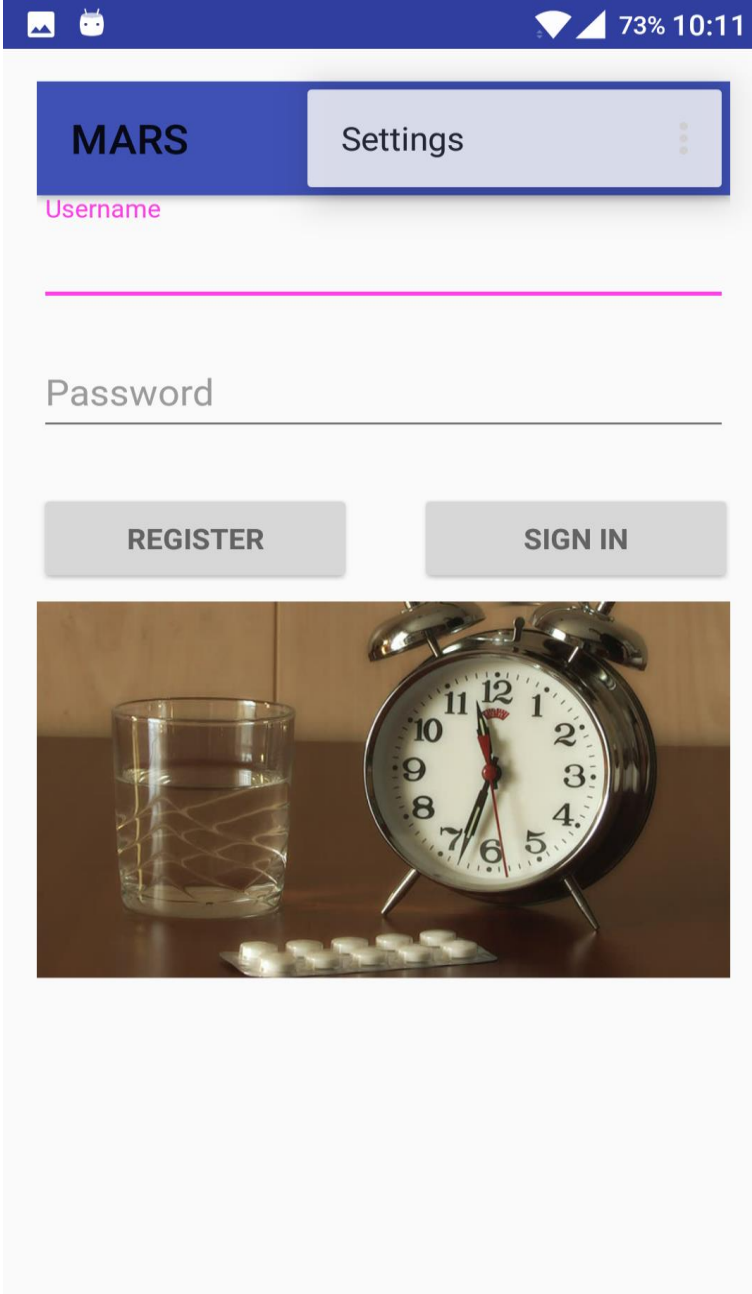
Architecture Diagram:

Previous Implementations

Login Screen in Android:



Login Screen with Settings:

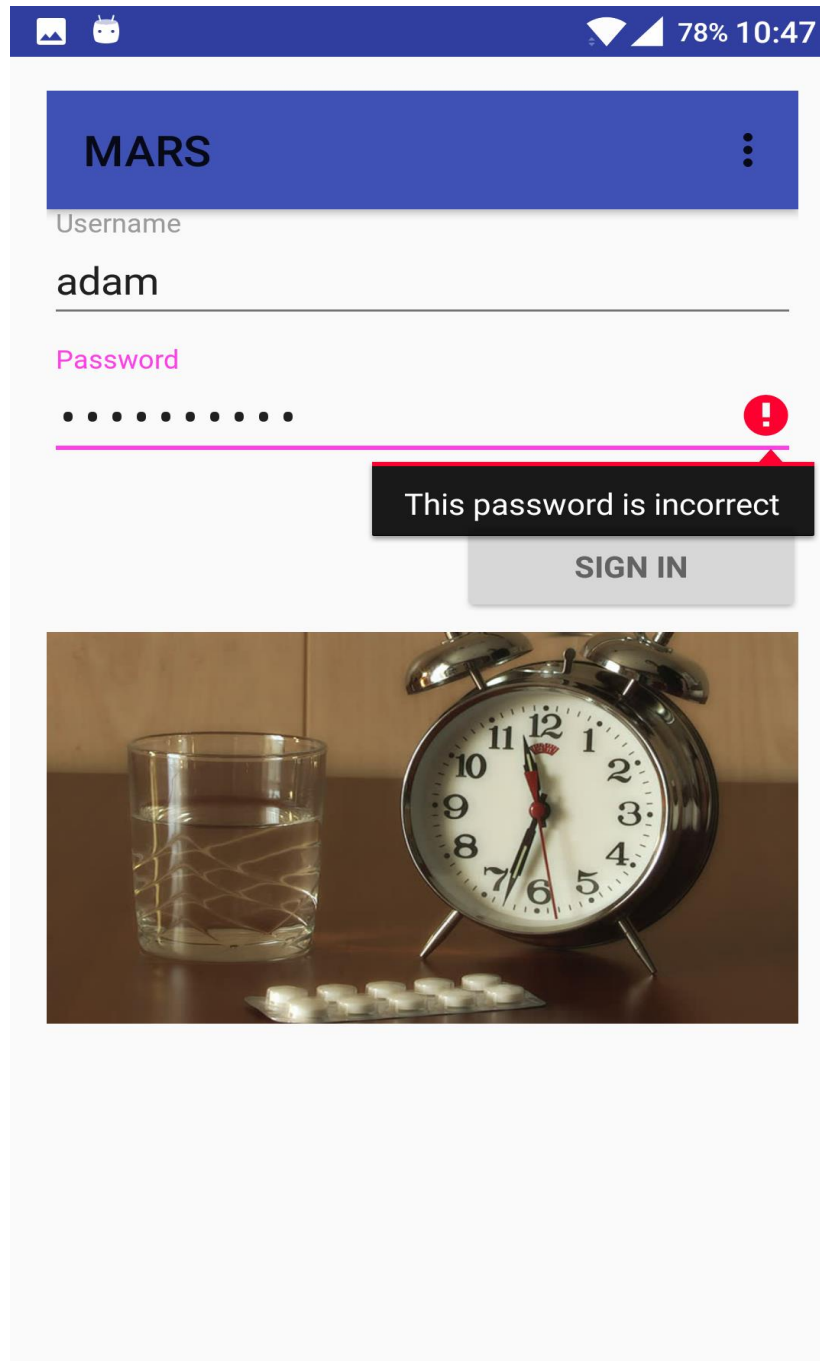


The image shows a mobile application interface for a login screen. At the top, there is a dark blue header bar with a status bar above it showing icons for a picture, a robot, Wi-Fi, and a battery level of 73% at 10:11. The app's header features the word "MARS" in white on a dark blue background, followed by a "Settings" button with three dots to its right. Below the header, there are two input fields: "Username" with a pink underline and "Password" with a grey underline. Underneath these fields are two buttons: "REGISTER" and "SIGN IN". At the bottom of the screen is a photograph of a glass of water, a silver alarm clock, and a blister pack of white pills on a wooden surface.

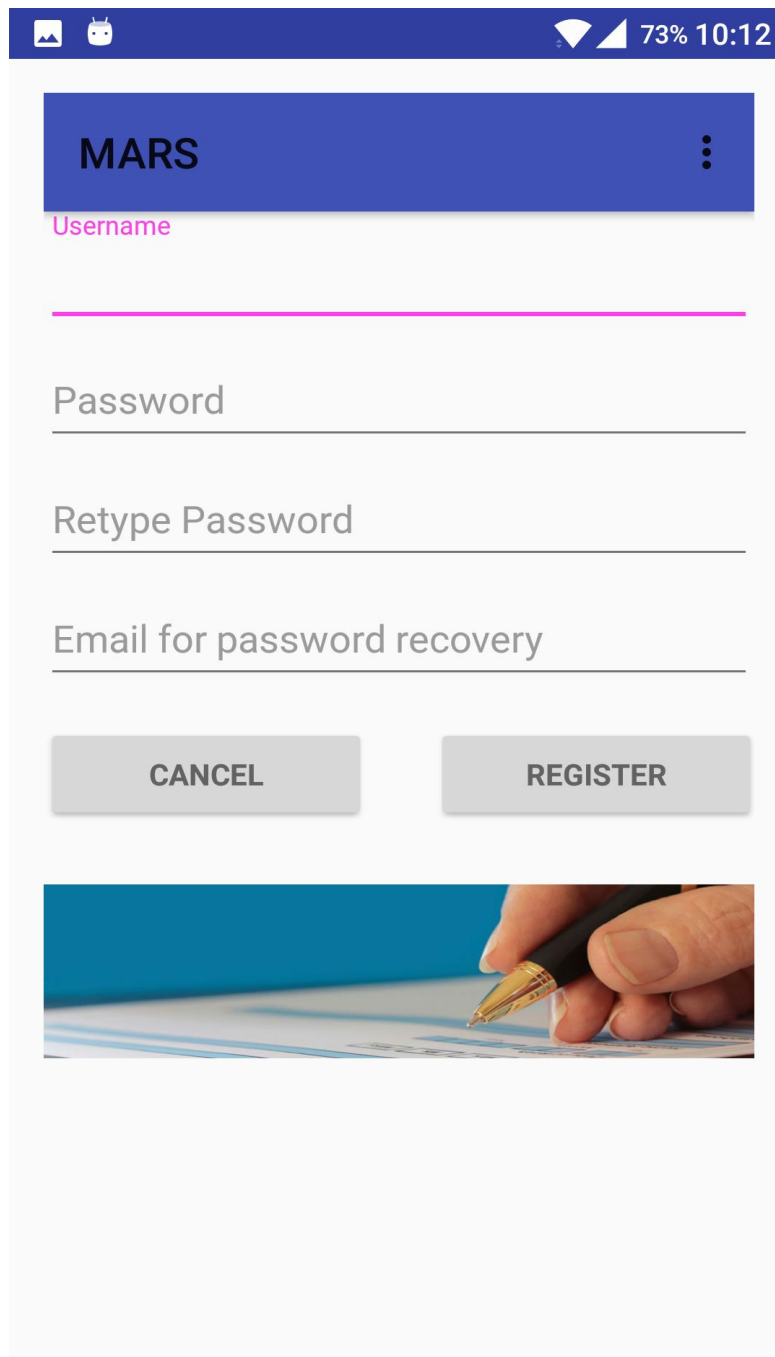
Login Screen when NO username is entered:

The screenshot displays a mobile application interface for a login screen. At the top, a dark blue header bar contains the word "MARS" in white, followed by a vertical ellipsis menu icon. Below the header, there are two input fields. The first field is labeled "Username" in pink text and is currently empty. A red exclamation mark icon is positioned to the right of this field. The second field is labeled "Password" in gray text and contains five dots. A black tooltip with the text "This field is required" is displayed over the password field. Below the input fields is a gray button labeled "SIGN IN". At the bottom of the screen, there is a photograph showing a glass of water, an alarm clock, and a blister pack of pills.

Login Screen when password entered is incorrect:



Registration Screen in Android:



The image shows a registration screen for an Android application named "MARS". The screen has a blue header bar with the app name "MARS" and a menu icon (three vertical dots) on the right. Below the header, there are four text input fields: "Username" (with a pink underline), "Password", "Retype Password", and "Email for password recovery". At the bottom, there are two buttons: "CANCEL" and "REGISTER". Below the buttons is a banner image showing a hand holding a pen writing on a document.

MARS ⋮


Username

Password

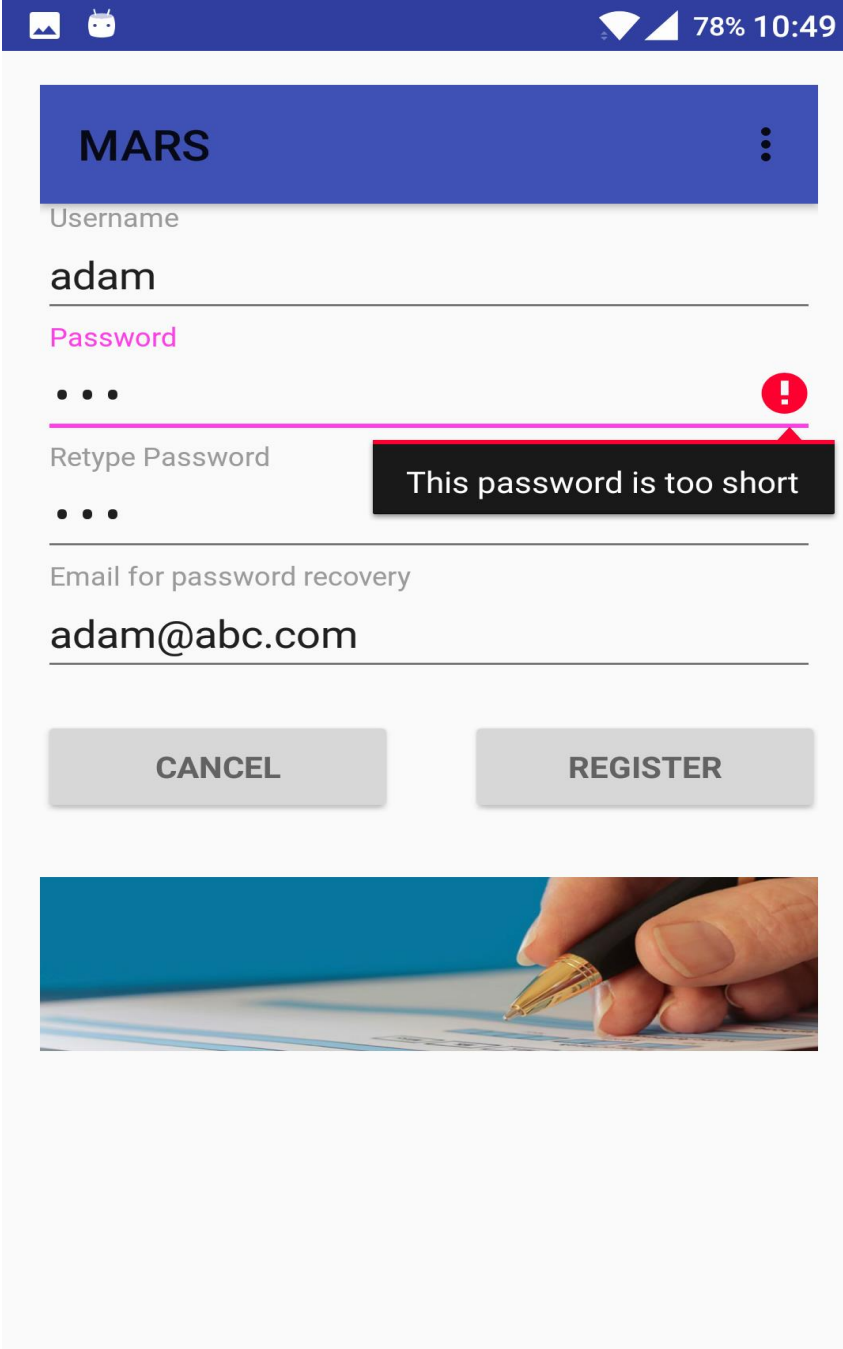
Retype Password

Email for password recovery

CANCEL REGISTER



Registration Screen when password is short:



The image shows a mobile application registration screen for an app named "MARS". The screen has a blue header with the app name and a menu icon. Below the header, there are four input fields: "Username" (containing "adam"), "Password" (containing three dots), "Retype Password" (containing three dots), and "Email for password recovery" (containing "adam@abc.com"). A red error message "This password is too short" is displayed in a black box over the password fields. A red exclamation mark icon is also present next to the password field. At the bottom, there are two buttons: "CANCEL" and "REGISTER". Below the buttons is a banner image showing a hand holding a pen writing on a document.

MARS

Username
adam

Password
...

Retype Password
...

Email for password recovery
adam@abc.com

CANCEL **REGISTER**

This password is too short

Registration Screen when passwords don't match:

The image shows a mobile application registration screen for an app named "MARS". The screen is displayed on a device with a blue status bar at the top showing 78% battery and the time 10:49. The app's header is a blue bar with the text "MARS" and a menu icon. Below the header, there are four input fields: "Username" with the value "adam", "Password" with masked characters "•••••", "Retype Password" with masked characters "•••", and "Email for password recovery" with the value "adam@abc.com". A red exclamation mark icon is positioned above the "Retype Password" field. A black error message box with the text "passwords do not match" is overlaid on the right side of the screen, pointing to the password fields. At the bottom, there are two buttons: "CANCEL" and "REGISTER". Below the buttons is a banner image showing a hand holding a pen over a document.

MARS

Username
adam

Password
•••••

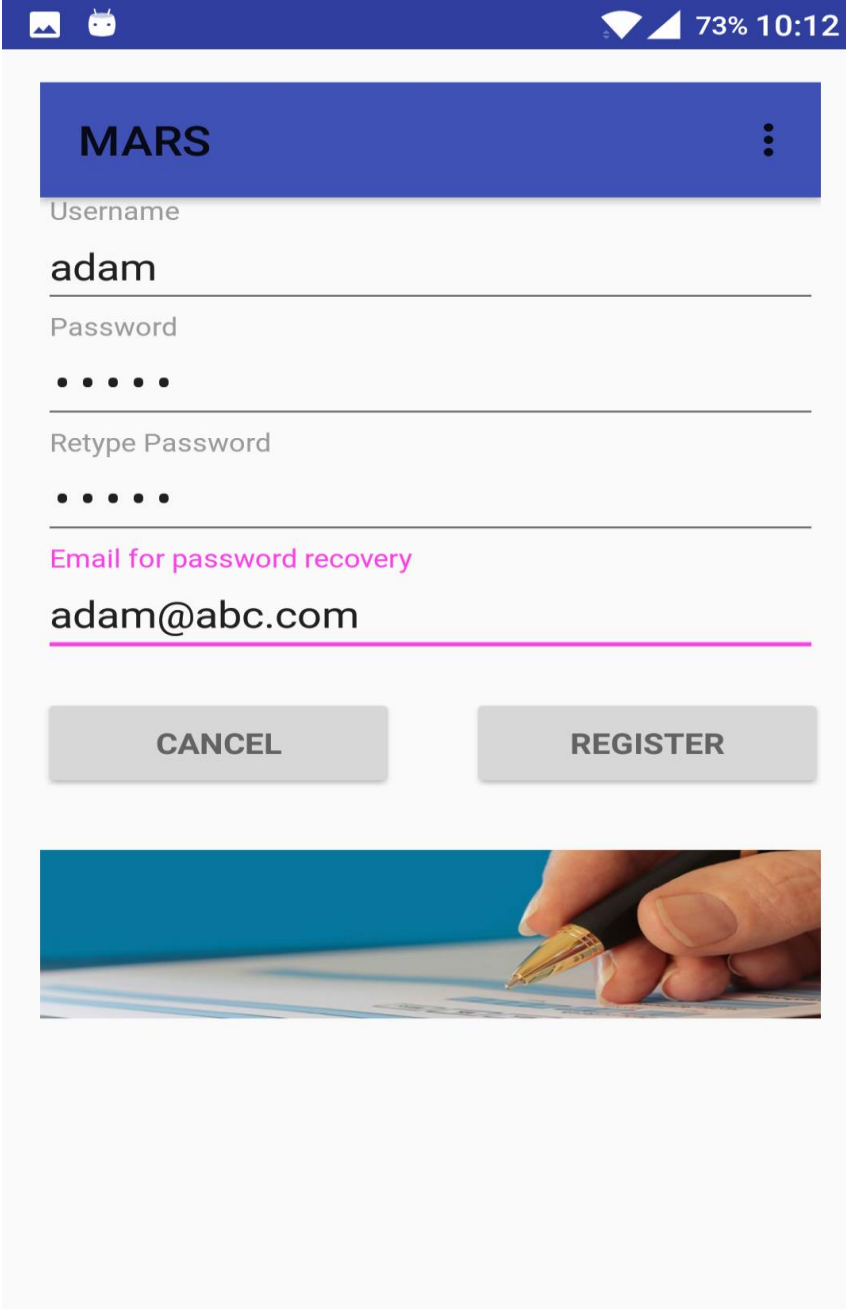
Retype Password
•••

Email for password recovery
adam@abc.com

passwords do not match

CANCEL REGISTER

Registration Screen with email for password recovery:



The image shows a mobile application registration screen for an app named "MARS". The screen has a blue header bar with the app name "MARS" and a menu icon. Below the header, there are four input fields: "Username" with the value "adam", "Password" with masked characters, "Retype Password" with masked characters, and "Email for password recovery" with the value "adam@abc.com". The email field is highlighted with a pink underline. At the bottom, there are two buttons: "CANCEL" and "REGISTER". Below the buttons is a banner image showing a hand holding a pen over a document.

MARS


Username
adam

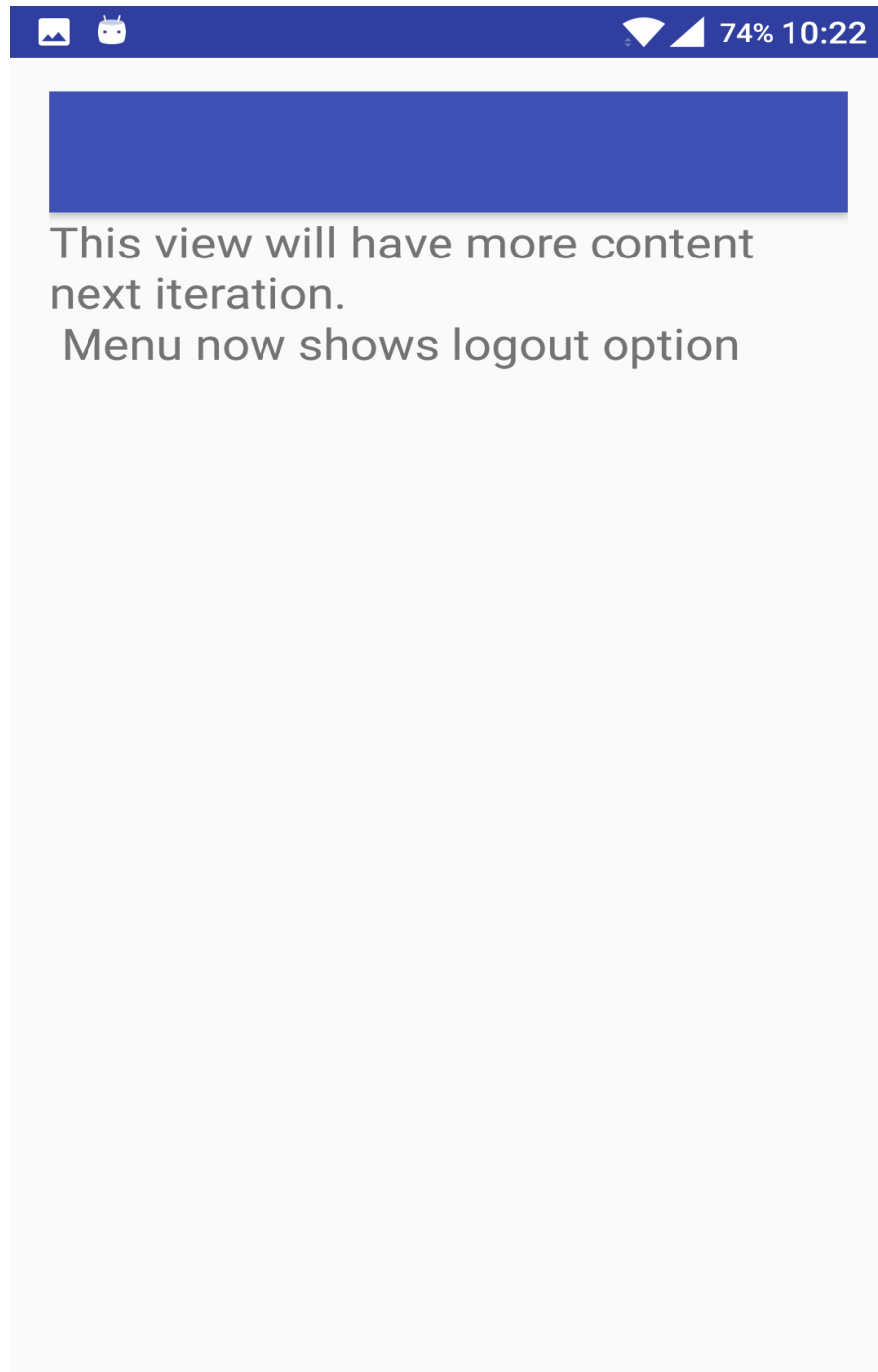
Password
• • • • •

Retype Password
• • • • •

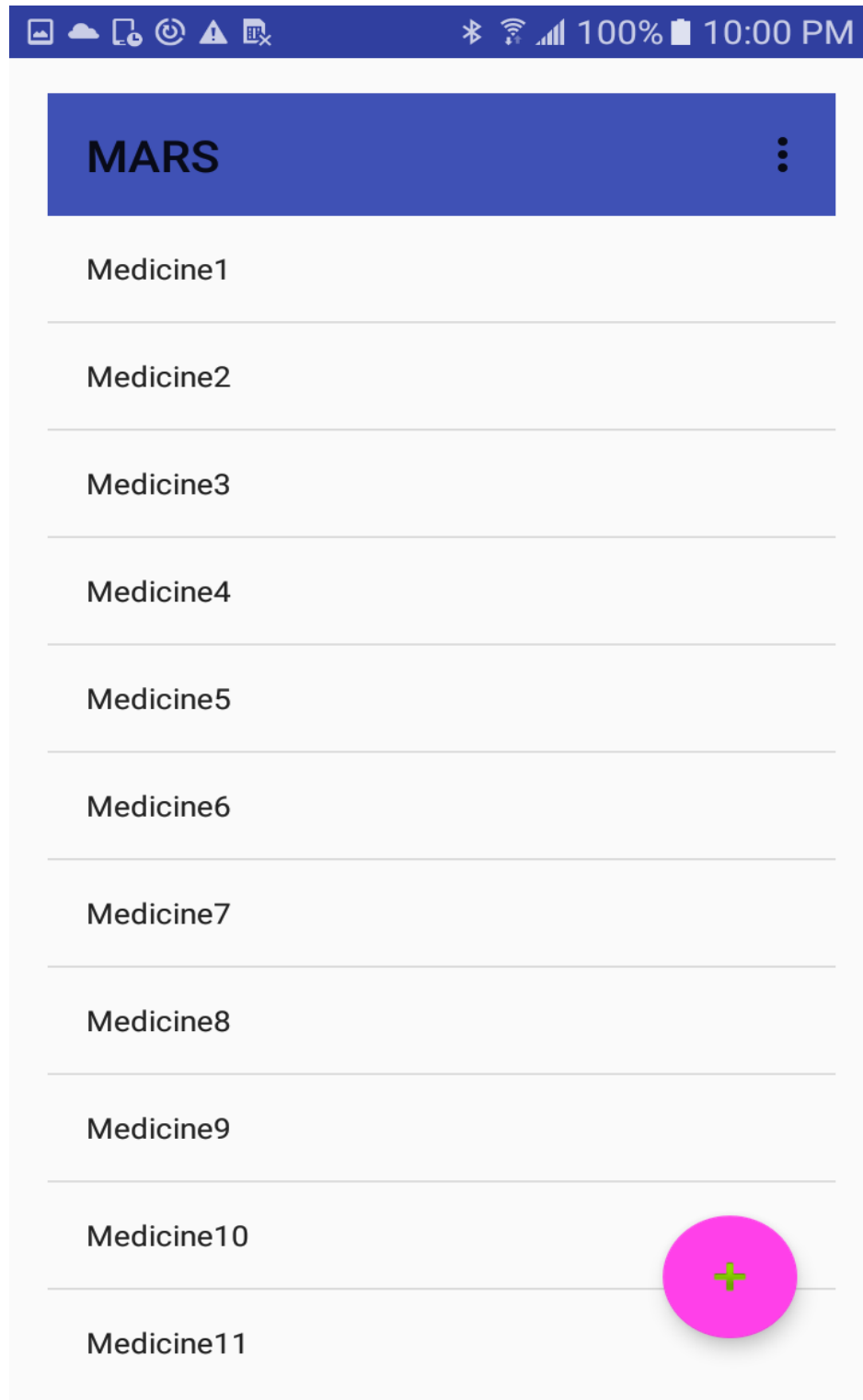
Email for password recovery
adam@abc.com

CANCEL **REGISTER**



MainActivity Screen in Android before Increment-2 implementation:

MainActivity Screen in Android:



AddActivity Screen in Android:

MARS

MedName

Dosage

From Date

To Date

Set Time

☐ Sunday

☐ Monday

☐ Tuesday

☐ Wednesday

☐ Thursday

☐ Friday

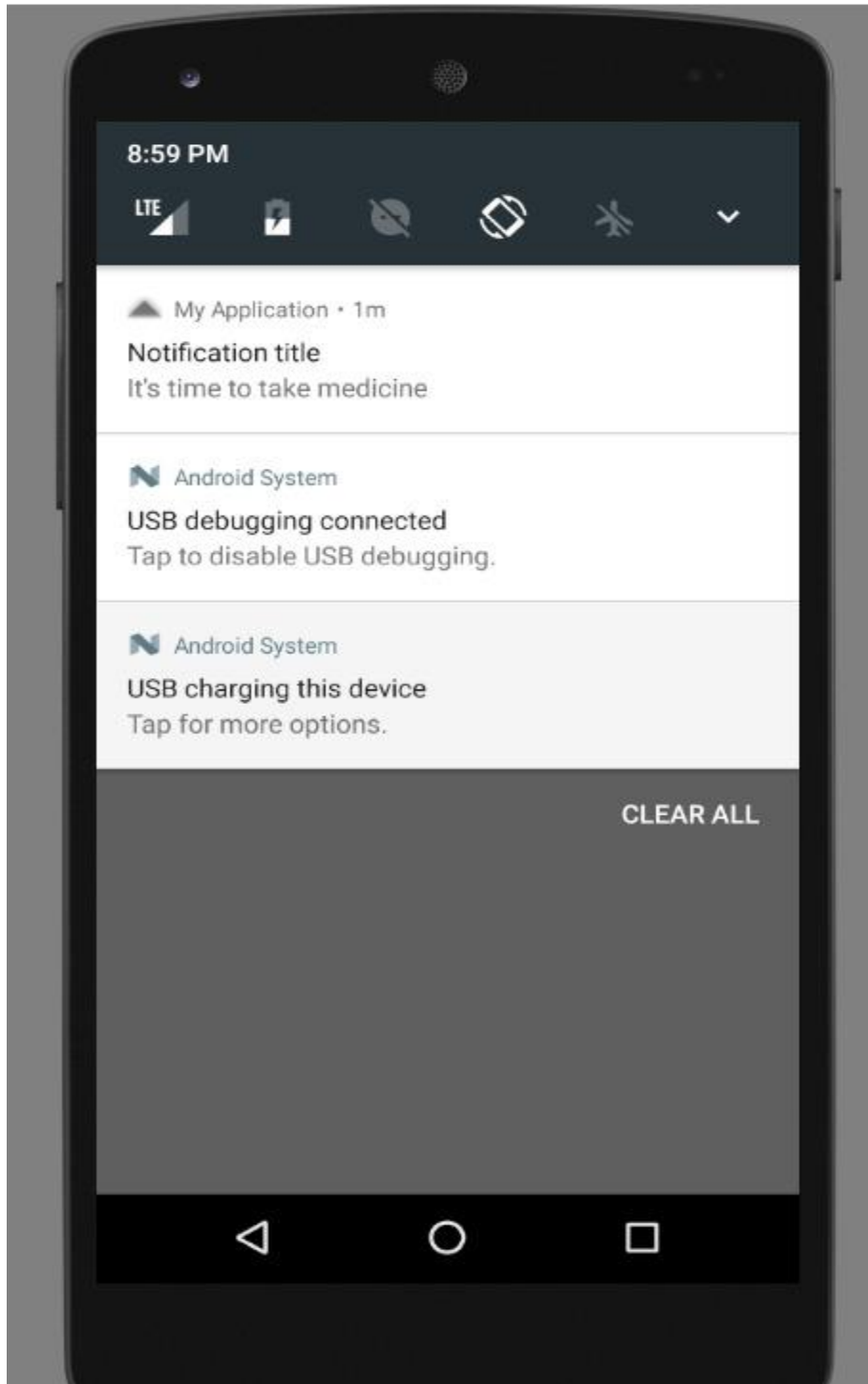
☐ Saturday

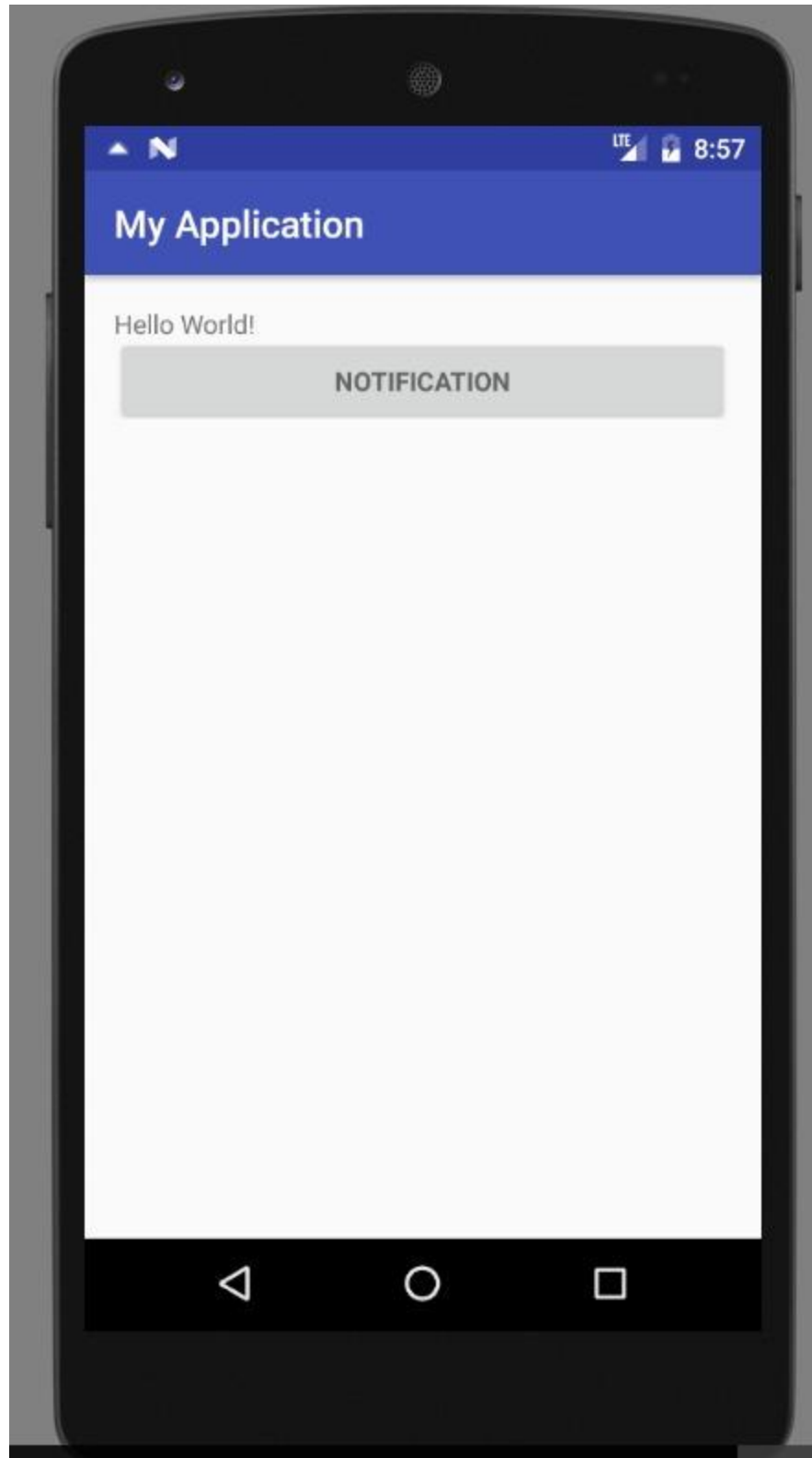
SAVE

UpdateActivity Screen in Android:

The screenshot displays the 'UpdateActivity' screen of an Android application. The interface features a blue header bar with the text 'MARS' and a vertical ellipsis menu icon. Below the header, there is a grey button labeled 'EDIT'. The main content area contains several input fields: 'Med Name' (with a pink underline), 'Dosage', and 'Medicine type'. Below these fields are three rows of date and time pickers, each consisting of a label and three dropdown buttons: 'From Date', 'To Date', and 'Set Time'. At the bottom of the screen, there are two large grey buttons: 'UPDATE' and 'DELETE'.

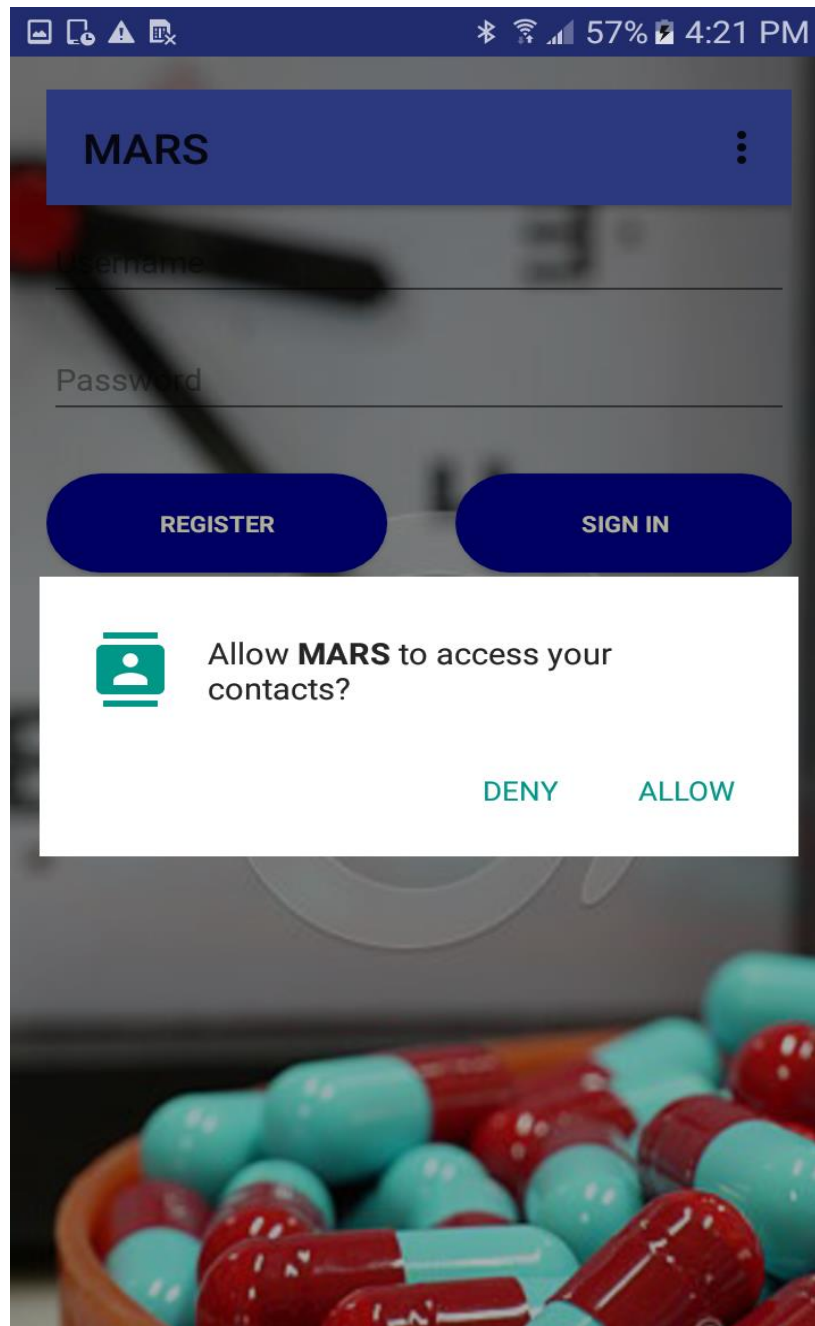
NotificationActivity Screen in Android:



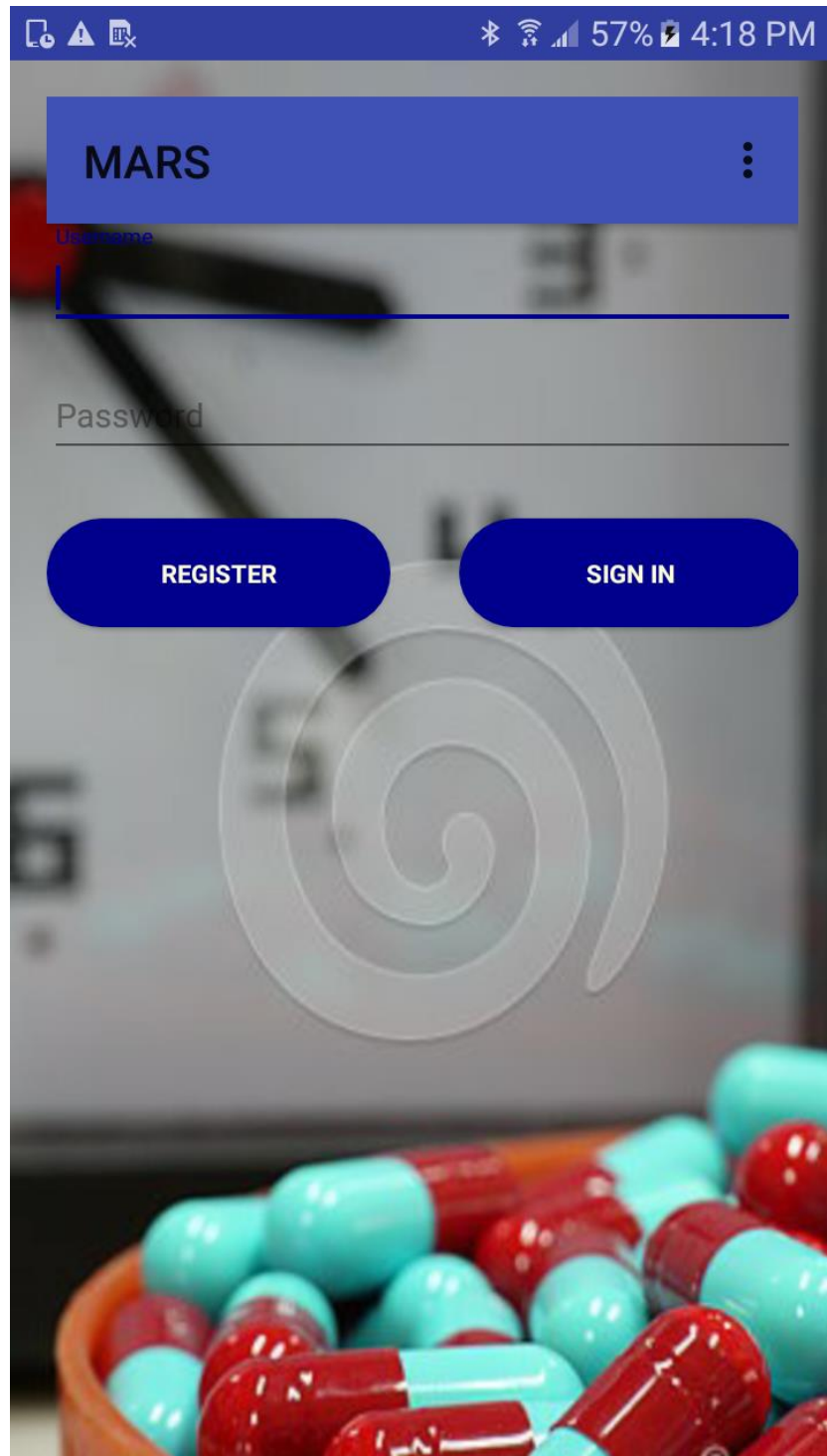


Third Increment Implementation

Contact Accessing Screen in Android:

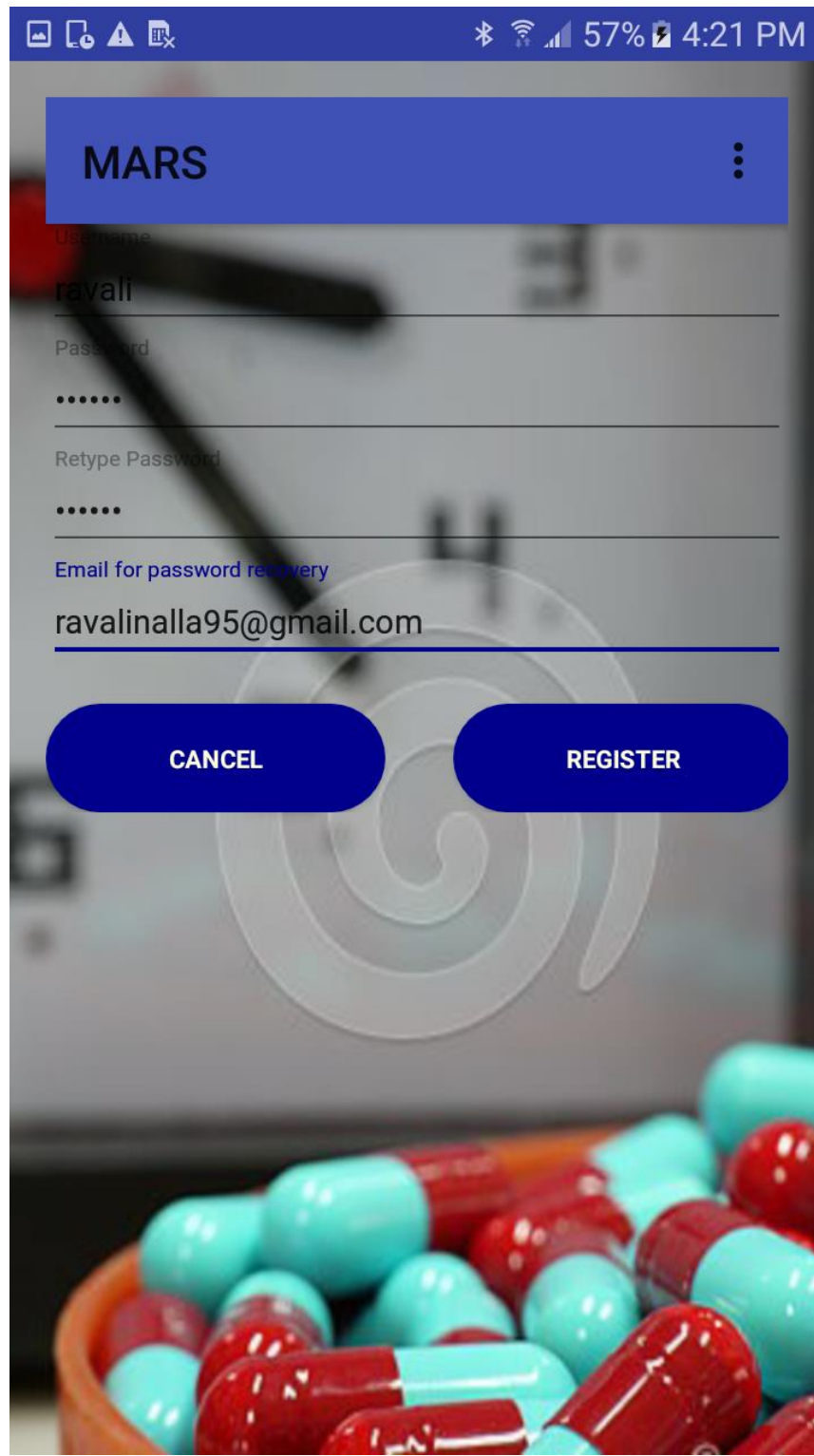


LoginActivity Screen in Android:



RegisterActivity Screen in Android:

The screenshot displays the RegisterActivity screen of an Android application. The interface features a blue header bar with the text "MARS" and a three-dot menu icon. Below the header, there are four text input fields labeled "Username", "Password", "Retype Password", and "Email for password recovery". At the bottom, there are two blue buttons labeled "CANCEL" and "REGISTER". The background of the screen shows a blurred image of a clock and a bowl of red and blue capsules.



The image shows a mobile application interface for a registration form titled "MARS". The form is overlaid on a background image of a bowl filled with red and light blue capsules. The form includes fields for Username, Password, Retype Password, and Email for password recovery. At the bottom, there are two buttons: "CANCEL" and "REGISTER".

MARS ⋮

Username
ravali

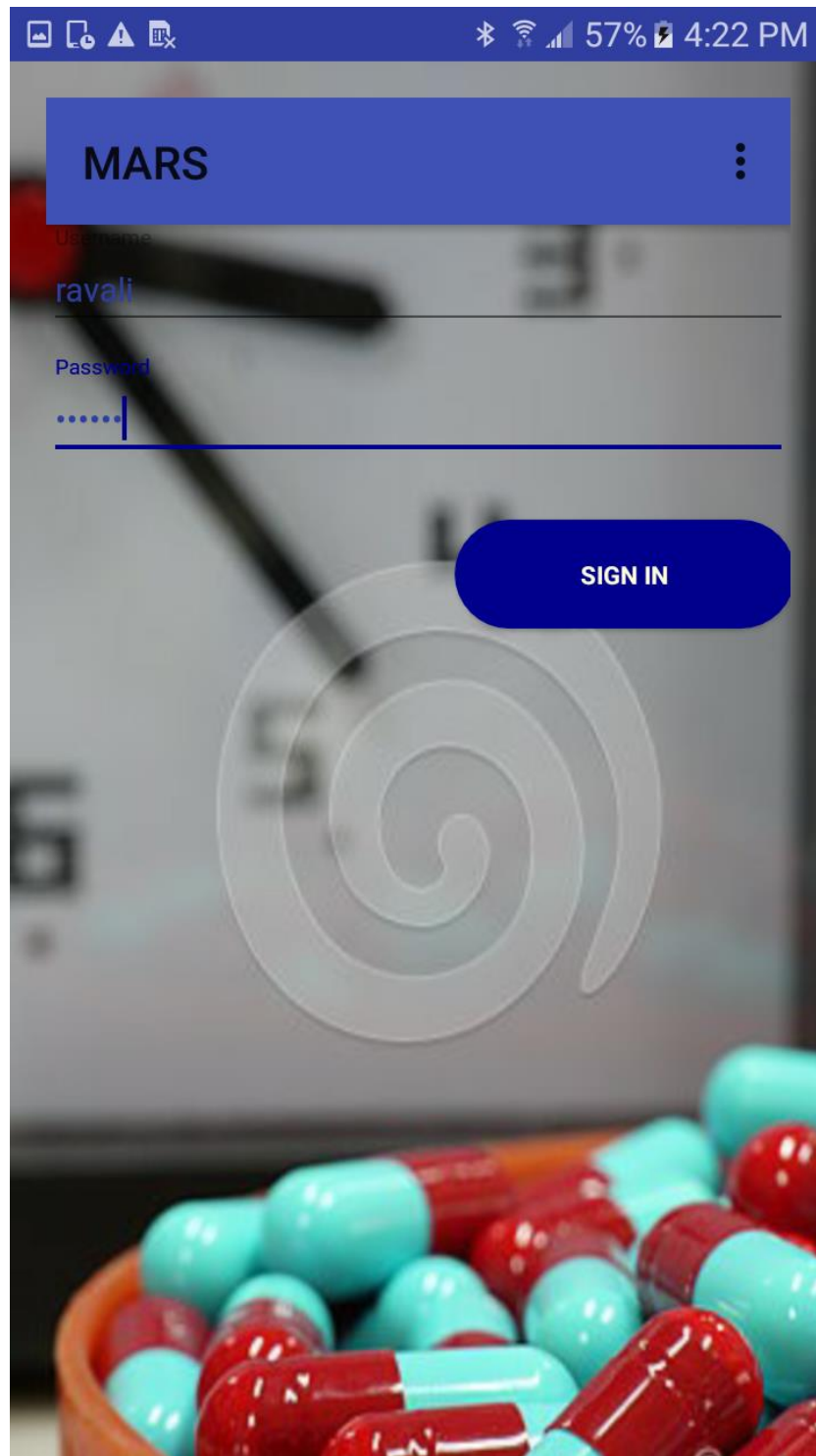
Password
.....

Retype Password
.....

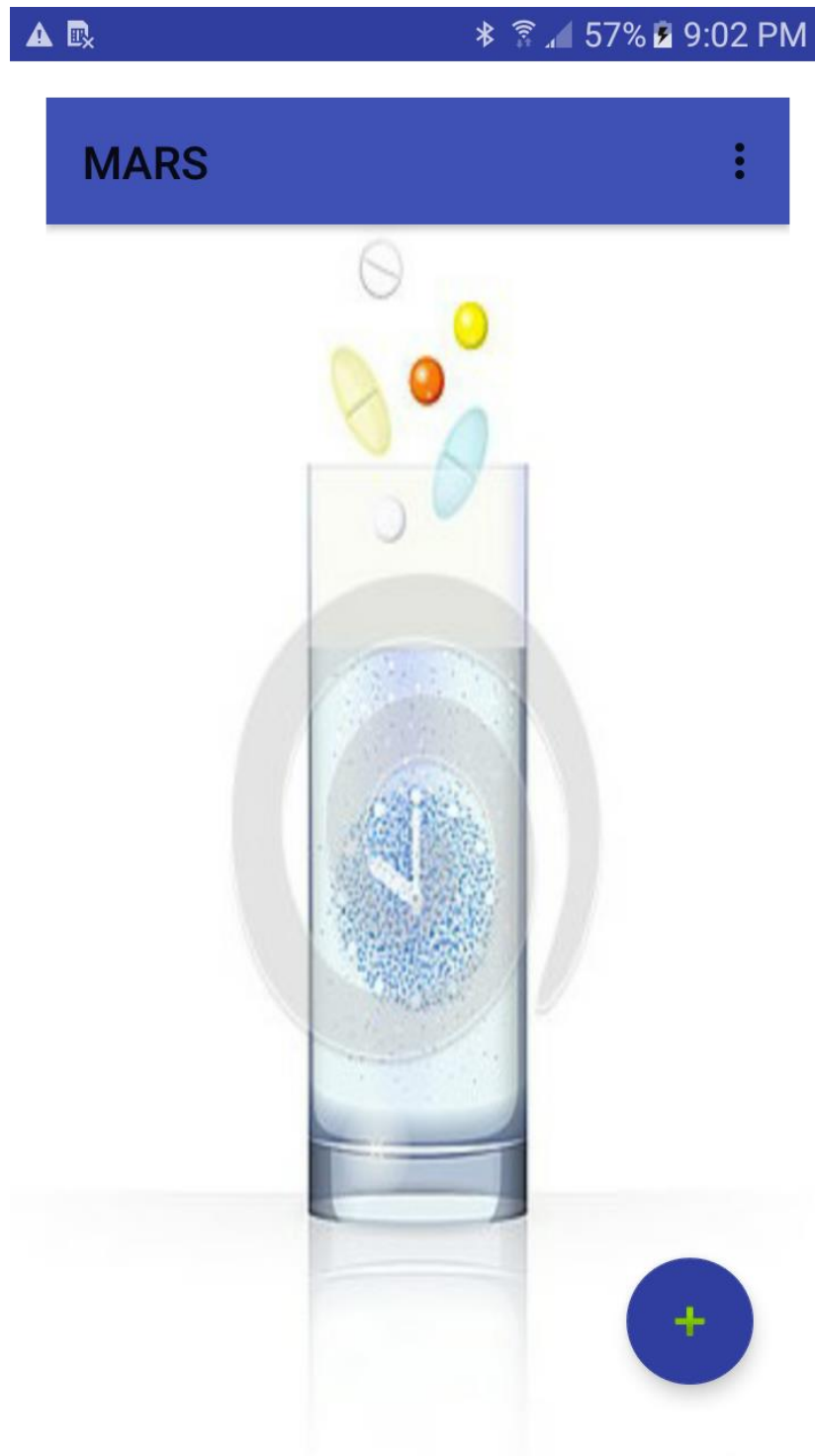
Email for password recovery
ravalinalla95@gmail.com

CANCEL **REGISTER**

LoginActivity Screen in Android:



MainActivity Screen in Android:



AddActivity Screen in Android:

MARS

MedName

Dosage

Set Time

01 00 am

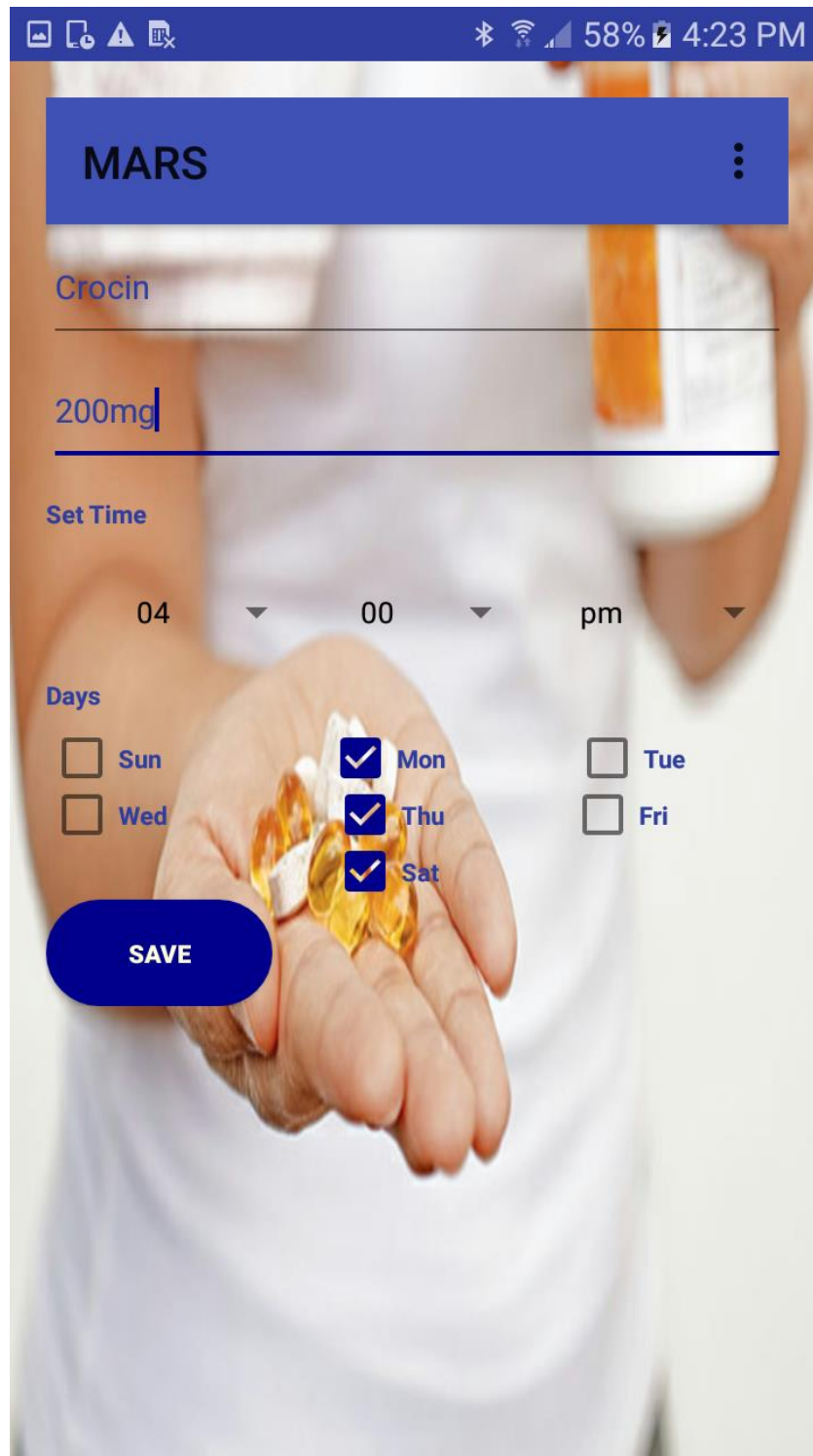
Days

☐ Sun ☐ Mon ☐ Tue

☐ Wed ☐ Thu ☐ Fri

☐ Sat

SAVE



The image shows a mobile application interface for managing medication. The background is a blurred photo of a person in a white lab coat holding a pill bottle and a handful of yellow capsules. The app has a blue header with the text "MARS" and a menu icon. Below the header, there is a text input field containing "Crocicn", followed by another text input field containing "200mg". Below these fields is a "Set Time" section with three dropdown menus showing "04", "00", and "pm". At the bottom, there is a "Days" section with checkboxes for each day of the week: Sun, Mon, Tue, Wed, Thu, Fri, and Sat. The checkboxes for Mon, Thu, and Sat are checked. A blue "SAVE" button is located at the bottom left of the form.

MARS

Crocicn

200mg

Set Time

04 00 pm

Days

☐ Sun ☒ Mon ☐ Tue

☐ Wed ☒ Thu ☐ Fri

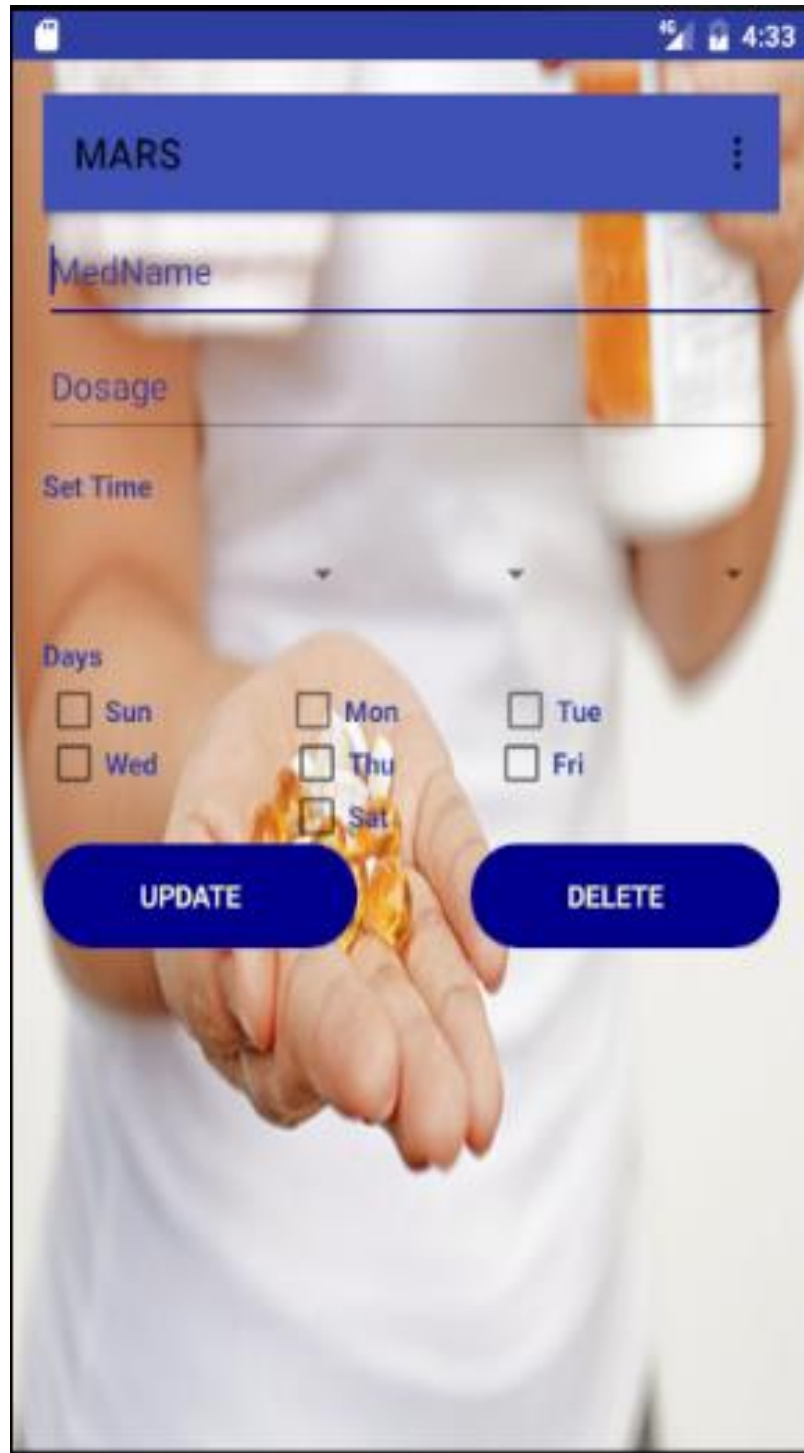
☒ Sat

SAVE

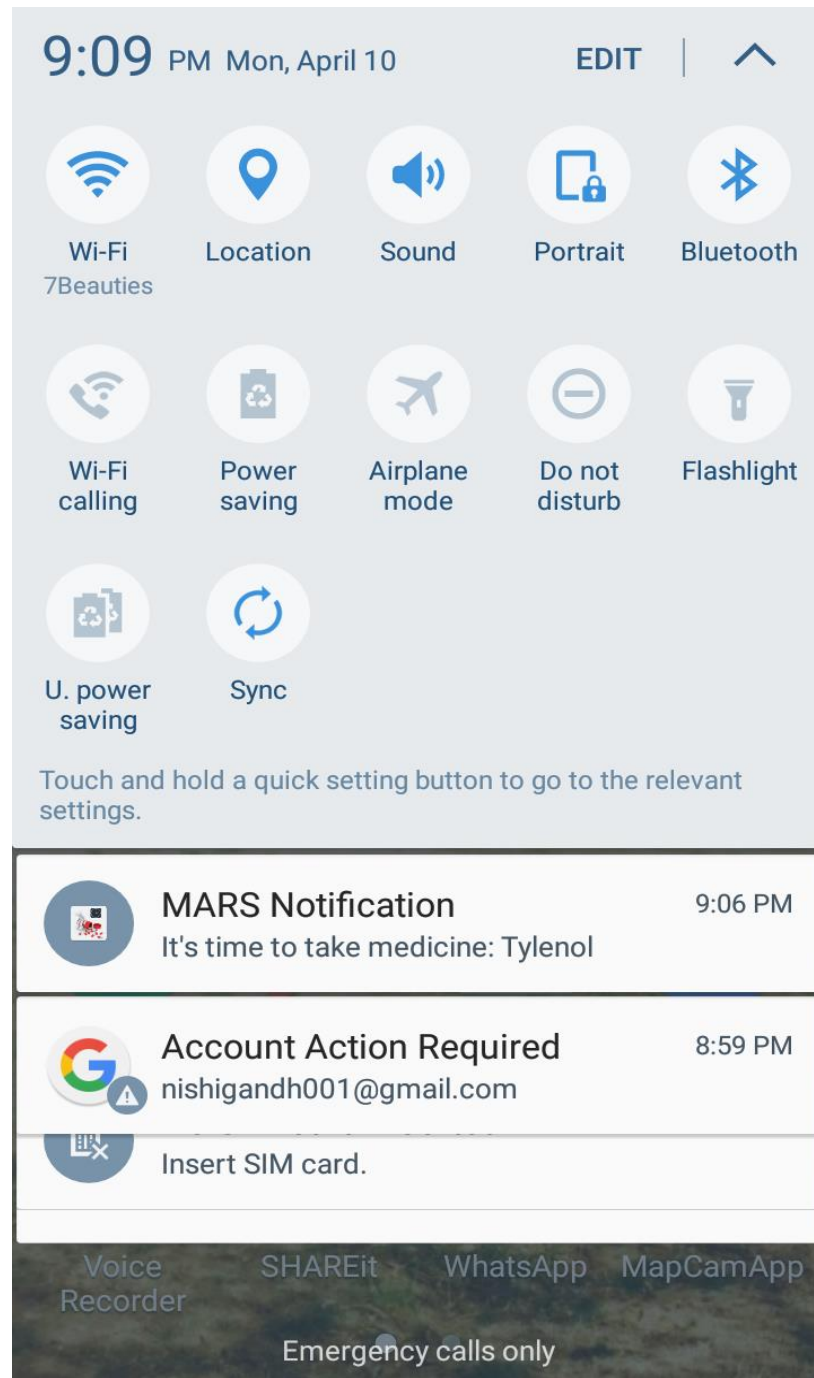
MainActivity Screen in Android:



UpdateActivity Screen in Android:



NotificationActivity Screen in Android:



Existing Services/API

MEDICINE REFILL:

MEDICINE INFORMATION RETRIEVAL

DailyMed API:

DailyMed provides high quality information about marketed drugs. This information includes FDA labels. This Web site provides health information providers and the public with a standard, comprehensive, up-to-date, look-up and download resource of medication content and labeling as found in medication package inserts. By using this API we can retrieve information related to a particular medicine.

URL: <https://www.healthdata.gov/dataset/dailymed>

Testing

Sr. No	Test Case	Description	Expected Output	Result
1.	Successful User Authentication	The user should login with username and password.	Successful Login	Pass
2.	Unsuccessful User Authentication	The user logs in with wrong username or password	Login unsuccessful with error-Invalid username or password	Pass
3.	Registration by new user	Admin accepts registration details from the user	Successful registration and transition to Login page	Pass
4.	Invalid Email ID	Invalid Email Id alert.	Error- Enter valid email address	Pass

Technologies Used

Implementation of Mobile Apps- Technology Used:

- XML
- CSS
- JavaScript
- Java

Tools Used:

- www.Creately.com
- Android SDK

Project Management

Issues:

pareshkasare / ASE_Project

Watch 0 Star 0 Fork 0

<> Code

Issues 3

Pull requests 0

Boards

Reports

Projects 0

Wiki

Filters

is:issue is:open

Labels

Milestones

New issue

3 Open ✓ 9 Closed

Author Labels Projects Milestones Assignee Sort

Change UI and documentation 5

#12 opened 5 days ago by pareshkasare Iteration-3 In Progress

1

Add notificate per day enhancement 3

#11 opened 5 days ago by pareshkasare Iteration-3 In Progress

Update activity for medicine enhancement 5

#10 opened 5 days ago by pareshkasare Iteration-3 In Progress

Bibliography

<http://www.fda.gov/Drugs/ResourcesForYou/SpecialFeatures/ucm485545.htm>

<http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm164616.htm>

http://www.pfizer.com/health/senior_health/taking_medicines

<https://cloud.google.com/vision/>

<https://www.programmableweb.com/api/walgreens-pharmacy-prescription-refill>

<https://www.healthdata.gov/dataset/dailymed>