Deliverable 3 report

Chesm

Smart City

Team Member

Team Member Names	Signatures	Student ID
Project Leader: **Thanh Phat Lam**		N01335598
Hieu Dang Chu		N01371619
Dung Ly		N01327929
Dinh Hoa Tran		N01354661

Github Repo

https://github.com/nhoxrongvip/SmartCity

Participants

Name	ID	Signature	Effort
Thanh Phat Lam	n01335598	lam	- Created landscape for Air Quality Fragment - Used aqicn.org/api to get quality condition value - Create sprints - Complete Document Effort : 30%
Dung Ly	n01327929	dung	- Created landscape for Login Activity - Used firebase authentication of firebase with (Sign in with email, password, Sign in with Google). - Create landscape for Register Activity - Test Load Database from realtime database of Firebase to Garbage Fragment

			● Change background of Login Activity and Register Activity. ● Use SharePrefer on Remember me to save Username and password of Login Screen. ● Notification Build for Register successed ● Review Fragment for Customer review Screen. Effort : 50%
Hieu Chu	n01371619	Hieu	- Re-design snow level fragment UI entirely to fit the team layout - Created landscape for snow level fragment - Created landscape for setting screen - Help complete document: C4, design principles and patterns Effort: 10%
Dinh Hoa Tran	n01354661	Tran	- Add database on firebase - Use database to completed city light fragment - Help complete the document - Test database Effort:10%

Sprint Report

Sprint 3

Task Complete : 3 / 7

[Login Screen] Login functions

in list Sprint 3 (Oct 25-Nov 2): Functions for Layout

Members

DL +

Labels

DONE +

Due date

☑ Oct 19 at 12:00 AM complete ⌄

Description   Edit

Tasks that should be done in the login screen.
Tick box if the task is done

☑ Tasks in login screen   Hide checked items   Delete

100% ██████████████████████████████

☑ Show error when username not in database

☑ Show error when username/password is wrong

☑ Edit text will show the error if they are empty or what error

☑ Include login options: Google

☑ Should have "Rememeber me" option. Save username

Add an item

Suggested ⚙

⚪ Join

Add to card

⚪ Members

◎ Labels

☑ Checklist

🕐 Dates

📎 Attachment

🖥 Cover

🗄 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

📷 Start free trial

Power-Ups

[Database] User Database

in list Sprint 3 (Oct 25-Nov 2): Functions for Layout

Members

DL +

Labels

DONE +

Dates

☑ Oct 25 - Nov 1 at 5:38 PM complete ⌄

Description Edit

Create Firebase database for users

☑ User Database

Hide checked items   Delete

100% ━━━━━━━━━━━━━━━━━━━━━━━━━━━━

☑ ~~Create Firebase to use realtime database~~

☑ ~~It should show all information(email, fullname, password, phone num)~~

☑ ~~Password must be encrypted~~

☑ ~~Each user has unique UID~~

☑ ~~Only Database Administrator has the edit permission, any participant must contact DBA if they want to add new things~~

Add an item

Suggested ⚙

& Join

Add to card

& Members

◎ Labels

☑ Checklist

🕐 Dates

📎 Attachment

🖥 Cover

🗂 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

📦 Start free trial

Power-Ups

+ Add Power-Ups

[Database] Data for Garbage Frag

in list Sprint 3 (Oct 25-Nov 2): Functions for Layout 👁

Members **Labels**

DL ➕ **In Progress** ➕

Dates

☐ Oct 27 - Nov 2 at 5:38 PM overdue ⌄

≡ Description Edit

Data for Garbage fragment

☑ Data needed   Hide checked items   Delete

20% ▓▓▓▓▓▓░░░░░░░░░░░░░░░░░░░░░░░░

☐ Include at least 5 cities(Toronto, North York, Mississauga, Scarborough, Hamilton)

☐ Every city have 5 garbage areas

☑ ~~Each area has address and 3 bins~~

☐ 3 bins value maybe fixed or changed daily

☐ When the collect button is clicked, it should display on the database.

Add an item

Suggested ⚙

👤 Join

Add to card

👤 Members

◈ Labels

☑ Checklist

🕐 Dates

📎 Attachment

▭ Cover

🗂 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

💼 Start free trial

Power-Ups

➕ Add Power-Ups

Automation ⓘ

Dates

☐ Oct 25 - Nov 2 at 5:00 PM overdue ⌄

≡ **Description** Edit

API source: 🏳️‍🌈 Chất lượng không khí trên toàn thế giới: AirNet Sensor Network

📎 **Attachments**

AirQuality_Fragment.JPG ↗
Added Nov 12 at 9:57 PM - Comment - Delete - Edit

🖥 Make cover

Add an attachment

☑ **Functions**   Hide checked items   Delete

78% ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓░░░

☑ ~~Get data from API (Using Asynctask)~~

☐ Current Location should display user location (from location permission). Display current city

☑ ~~In "quality" textview, display US AQI value from API~~

☑ ~~In "condition" textview, if AQI < 50, display "GOOD". If AQI is between 51 and 100, display "MODERATE". if >100, display "UNHEALTHY"~~

☑ ~~In "emotion" image, if AQI < 50, display "aq_happy.png". If AQI is between 51 and 100, display "aq_worry.png". if >100, display "aq_angry.png"~~

☑ ~~PM2.5 in Pollutants, display current pm25 value~~

☑ ~~CO2 in Pollutants, display current co2 value~~

☑ ~~O3 in Pollutants, display current o3 value~~

☐ In "Daily Graph" section, display selected field on chart.

Add an item

👤 Members

◈ Labels

☑ Checklist

🕐 Dates

📎 Attachment

🖥 Cover

🗂 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

💼 Start free trial

Power-Ups

+ Add Power-Ups

Automation ⓘ

+ Add button

Actions

→ Move

🗐 Copy

🗄 Make template

👁 Watch ✅

🗄 Archive

⌣ Share

Members   Labels
HC +   NOT DONE +

Dates
☐ Oct 25 - Nov 2 at 5:00 PM overdue ⌄

☰ Description Edit

Functions for Snow Level fragment

☑ Functions   Delete

0% ▓─────────────────────────────────────

☐ Current Location should display user location (from location
   permission). Display current city

☐ Get Snow level data from database and display current snow level in
   "Snow level" textview

☐ Weather image change depending on snow level

☐ Display current Temperature and Humidity

☐ When "Call support " button is clicked, set value to database

☐ When snow level is too high, send notification

☐ Send notification about: snow level, temperature and humidity every
   date at specific time.

[Settings]Ask for permission

in list Sprint 3 (Oct 25-Nov 2): Functions for Layout 👁

Members   **Labels**

👤 ➕   **In Progress** ➕

Dates

☐ Oct 7 - Oct 11 at 4:58 PM `overdue` ⌄

Description

Add a more detailed description...

☑ Location Permission

[Hide checked items] [Delete]

40% �_____
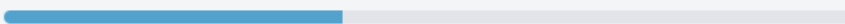
☑ ~~If i click in a "Get location" button, it should ask for my current location~~

☐ If a permission is granted, I can see my current area/city in app.

☐ If a permission is granted, Lat & Long will be sent to backend and it then gets the current air condition at that location.

☐ If permission is denied, It should display a dialog explained how permission is important to this app (This happens 1 time only)

☑ ~~If I insist on not granting permission, snack bar display saying "Permission denied".~~

[Add an item]

Add to card

👤 Members

◇ Labels

☑ Checklist

🕐 Dates

📎 Attachment

▭ Cover

🗀 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

🎫 Start free trial

Power-Ups

➕ Add Power-Ups

Automation ⓘ

➕ Add button

Actions

➡ Move

🗐 Copy

🗐 Make template

Settings Screen

in list Sprint 3 (Oct 25-Nov 2): Functions for Layout 👁

Members   **Labels**

HC +   In Progress +

Dates

☐ Oct 11 - Oct 15 at 12:00 AM overdue ⌄

Description

Add a more detailed description…

Tasks   Hide checked items   Delete

40% ━━━━━━━━━━━━━━━━━━━━━━━━━━

☑ ~~Ask for user location. Display message whether successful or not~~

☐ When dark mode is chosen, change every background to gray

☑ ~~Lock and unlock portrait mode~~

☐ If temperature unit switch is chosen, change to that unit (C/F)

☐ When "Help&Feedback" button is clicked, go to "Help&feedback" fragment

Add an item

[Database] City light

in list Sprint 4 (Nov 14-Nov 28): Add new activity & complete remaining functions 👁

Members **Dates**

TH ＋ ☑ Nov 20 - Nov 28 at 7:45 PM `complete` ⌄

Description

Add a more detailed description...

☑ User Database   Hide checked items   Delete

100% ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

- ☑ ~~Create Firebase to use realtime database~~
- ☑ ~~Save database to use on the fragment~~
- ☑ ~~Can manual on or off by user~~
- ☑ ~~The database will change by user if they want to on or off the database will not change even have a car get in the street~~
- ☑ ~~Set auto value of each street~~

Add an item

Add to card

👤 Members

◆ Labels

☑ Checklist

🕐 Dates

📎 Attachment

▭ Cover

🗂 Custom Fields

Power-Ups

＋ Add Power-Ups

Automation ⓘ

＋ Add button

Actions

Sprint 4

[Welcome Activity] First-time user

in list Sprint 4 (Nov 14-Nov 28) 👁

Members

Labels

NOT DONE +

Dates

☐ Nov 14 - Nov 21 at 5:00 PM ∨

Description Edit

This activity will start after the login screen for the new user.
There are 4 pages:
+ App introduction
+ Team members introduction
+ Fragment introduction
+ Get started

Components Delete

0%

☐ Provide layout for App introduction page

☐ layout for Team member introduction page

☐ layout for each fragment uses tutorial

☐ Layout for "Get started" page

☐ Animation for every page

Add an item

Add to card

👤 Members

◇ Labels

☑ Checklist

🕐 Dates

📎 Attachment

🖥 Cover

🗂 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

🎒 Start free trial

Power-Ups

+ Add Power-Ups

Automation ⓘ

+ Add button

Actions

[Welcome Activity] Activity layout

in list Sprint 4 (Nov 14-Nov 28)

Members

DL +

Labels

NOT DONE +

Dates

☐ Nov 14 - Nov 21 at 5:00 PM ⌄

☰ Description

Add a more detailed description...

☑ Functions   Delete

0% ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓

☐ Create 4 options that can access to 4 fragments

☐ when option is chosen, move to that fragment

☐ Add navigation drawer to display current user

☐ Provide contents for each page in first-time user

☐ Show tutorial for each options for first-time user

Add an item

[Air Quality] Complete

in list Sprint 4 (Nov 14-Nov 28) 👁

Members

Labels

Dates

NOT DONE +

☐ Nov 21 - Nov 28 at 5:00 PM ⌄

Description Edit

Complete remaining functions in Air Quality Fragment

☑ Remaining   Delete

0%

☐ Complete "Quality, condition" section

☐ Send notification if Quality is Moderate or Unhealthy

☐ Send notification is AQI value is more than 51

☐ Complete Daily graph report

☐ Add reference at the end

Add an item

Add to card

👤 Members

◈ Labels

☑ Checklist

🕐 Dates

📎 Attachment

🖥 Cover

🗂 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

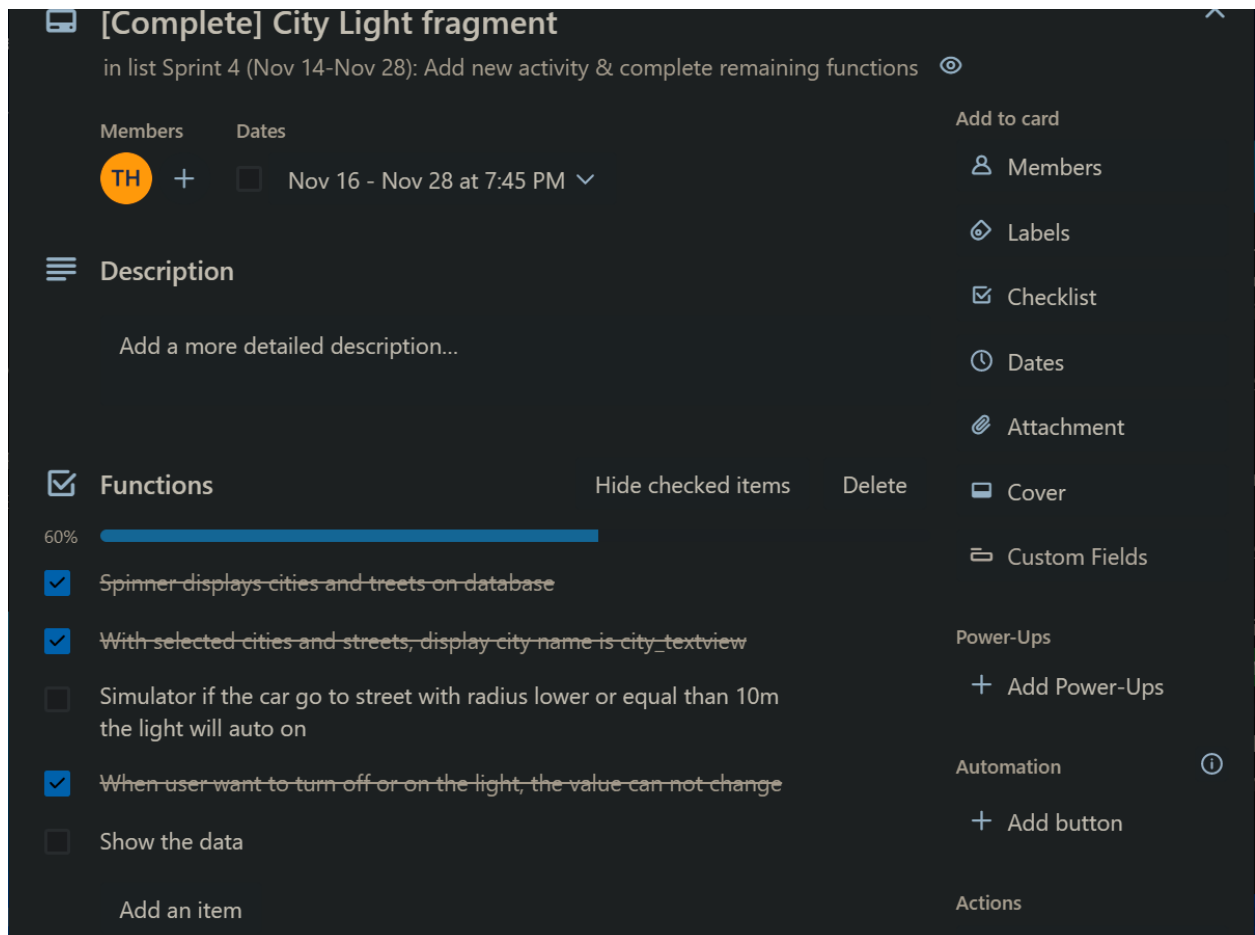💼 Start free trial

Power-Ups

+ Add Power-Ups

Automation ⓘ

[Garbage] Complete

in list Sprint 4 (Nov 14-Nov 28)

Members   **Dates**

DL +   ☐ Nov 14 - Nov 21 at 5:00 PM ⌄

Description

Add a more detailed description...

Functions   Delete

0% ▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁▁

☐ Spinner displays cities on database

☐ With selected city, display city name is city_textview

☐ In listview, show address of bin

☐ When listview is clicked, move to Garbage_bin fragment which
   display detailed of each bin

☐ Show reference at the end (if needed)

   Add an item

[Garbage_Bin Screen] Function design

in list Sprint 4 (Nov 14-Nov 28)

Members
DL +

Labels
NOT DONE +

Dates
☐ Nov 21 - Nov 28 at 5:00 PM ˅

Description

Add a more detailed description...

☑ Layout components   Delete

0% �_____

☐ Show selected city, address of area, number of bins

☐ Show weight of each bin, show bin condition

☐ Bin condition: if bin is not half full, show green. If bin is more than half, show yellow. If bin is full, show red

☐ ImageButton for each bin, when clicked, show bin condition

☐ Button to call Garbage collector. When clicked, update data to firebase

Add an item

☰ Activity   Show details

Suggested ⚙

& Join

Add to card

& Members

◈ Labels

☑ Checklist

⏱ Dates

📎 Attachment

▭ Cover

🗂 Custom Fields

Add dropdowns, text fields, dates, and more to your cards.

📋 Start free trial

Power-Ups

+ Add Power-Ups

Automation ⓘ

+ Add button

Gantt Chart

Components

	Task	Assignee	Status	Start	End	Notes
1	Login Screen Functions	Dung Ly	Done	10/25/2021	10/28/2021	
2	User DataBase	Dung Ly	Done	10/28/2021	11/1/2021	
3	Register Layout	Thanh Phat Lam	Done	10/17/2021	10/18/2021	
4	Air Quality Layout	Thanh Phat Lam	Done	10/15/2021	10/17/2021	
5	Garbage Screen Layout	Dung Ly	Done	10/15/2021	10/17/2021	
6	Snow Level Screen Layout	hieuchu.d@gmail.com	Done	10/15/2021	10/17/2021	
7	Garbage_Bin Layout	Dung Ly	Done	10/19/2021	10/21/2021	
8	City Light Screen Layout	Trần Hoà	Done	10/17/2021	10/20/2021	
9	Login Screen Layout	Dung Ly	Done	10/15/2021	10/16/2021	
10	Database for Garbage Fragment	Dung Ly	In progress	10/27/2021	11/2/2021	
11	Air Quality Functions	Thanh Phat Lam	In progress	10/25/2021	11/2/2021	
12	Snow Level Functions	hieuchu.d@gmail.com	In progress	10/25/2021	11/2/2021	
13	Welcome Activity Layout Design	Thanh Phat Lam	Todo	11/14/2021	11/21/2021	
14	Main Screen Layout	Thanh Phat Lam	Todo	11/14/2021	11/21/2021	
15	Complete Air Quality Function	Thanh Phat Lam	Todo	11/21/2021	11/28/2021	
16	Garbage screen functions complete	Dung Ly	Todo	11/21/2021	11/28/2021	
17	Garbage_Bin Screen Functions	Dung Ly	Todo	11/21/2021	11/28/2021	
18	Database for city light fragment	Trần Hoà	Done	11/14/2021	11/21/2021	Use data base for text view...
19						

Timeline
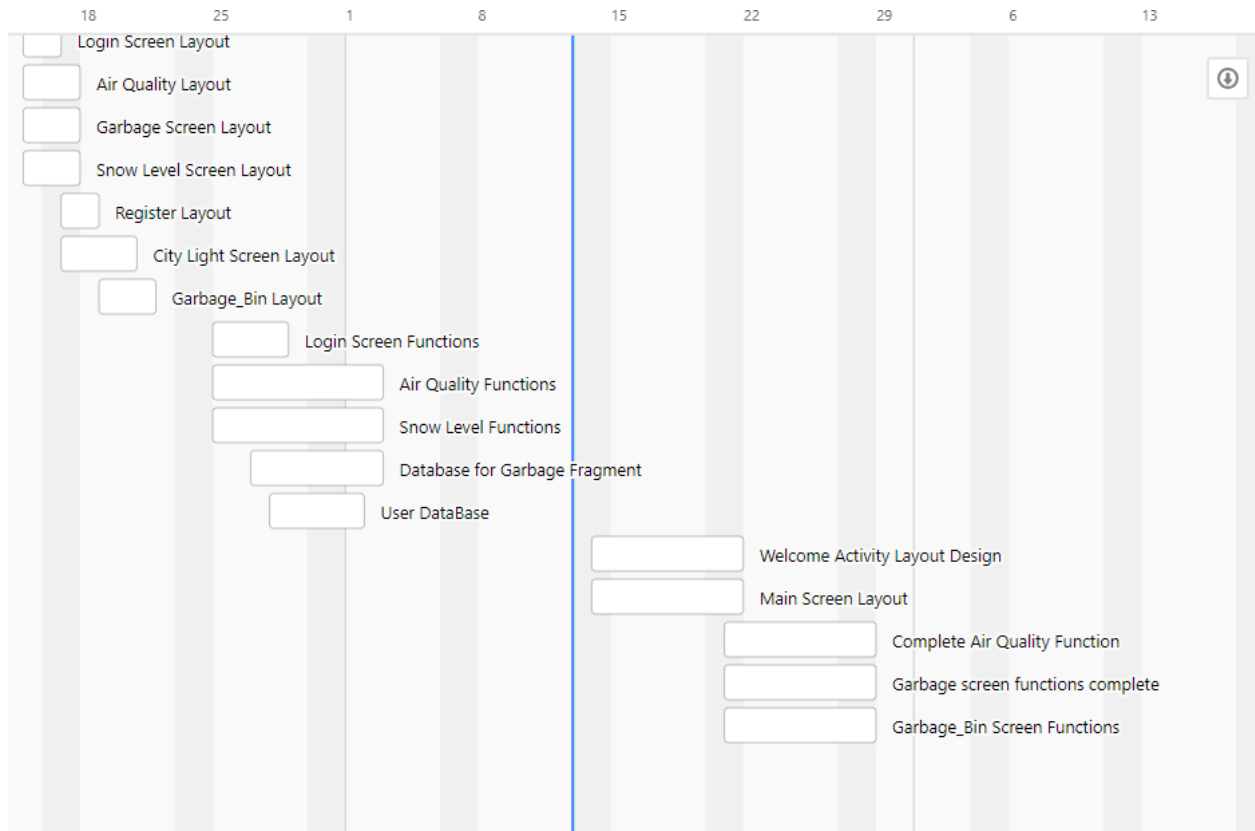
Daily Standup

We contact each other through Discord and Facebook Messages mostly. This is a wrap up for Daily Standup/

Oct 26th

Dung Ly

What did you do yesterday ?

Complete layout for login screen

What will you to today ?

Function for log in/register screen

Any Blockers ?

Not at this moments

Thanh Phat Lam

What did you do yesterday ?

Complete horizontal/vertical layout for Air Quality Fragment

What will you to today ?

Asynctask functions to get data from API

Any Blockers ?

Find A good data source

Dinh Hoa Tran

What did you do yesterday?

Stretch layout for City Light Fragment

What will you to today ?

Complete layout for City Light Fragment

Any Blockers ?

Not at this moments

Hieu Chu

What did you do yesterday ?

Complete layout for Setting fragment

What will you to today ?

Layout for Snow level fragment

Any Blockers ?

Not at this moment

Nov 3rd

Daily Standup
Sprint 3
Nov 3rd

Dung Ly	Thanh Phat Lam	Dinh Hoa Tran	Hieu Chu
What did you do yesterday ? Login/Register functions	**What did you do yesterday ?** Asynctask functions to get data from API	**What did you do yesterday?** Complete layout for City Light Fragment	**What did you do yesterday ?** Complete layout for City Light Fragment
What will you to today ? Firebase data design	**What will you to today ?** Display to graph	**What will you to today ?** Finish city light layout design and implement to app	**What will you to today ?** Complete functions for snow level fragment
Any Blockers ? No good data sources so insert manually	**Any Blockers ?** Not at this moments	**Any Blockers ?** Not at this moments	**Any Blockers ?** Not at this moment

Nov 13rd

Daily Standup	
Sprint 3	
Nov 13rd	

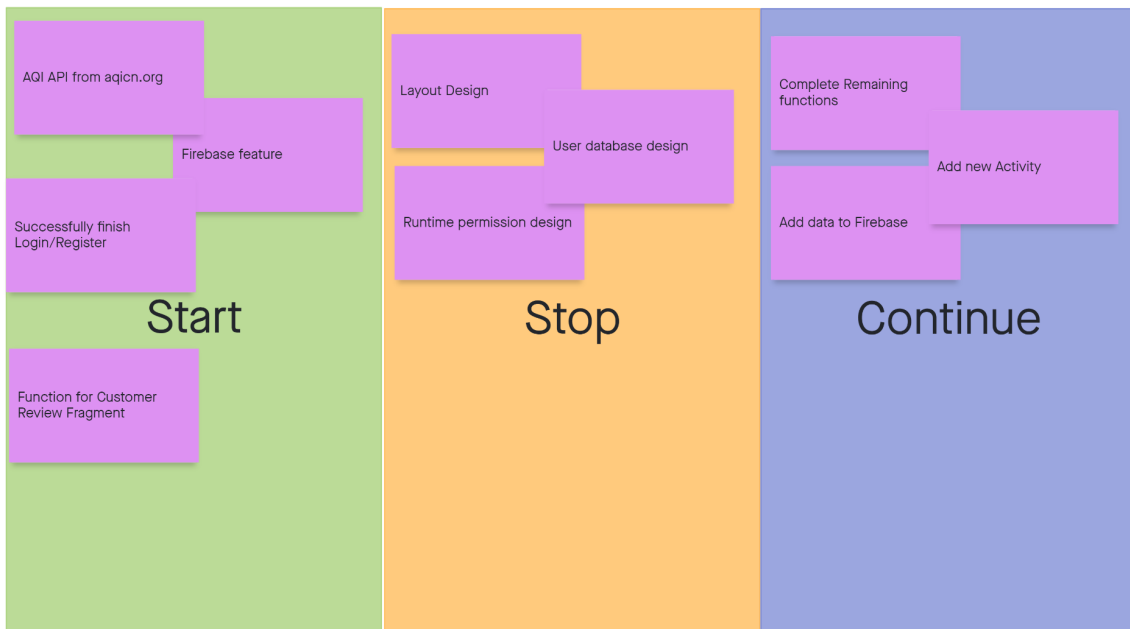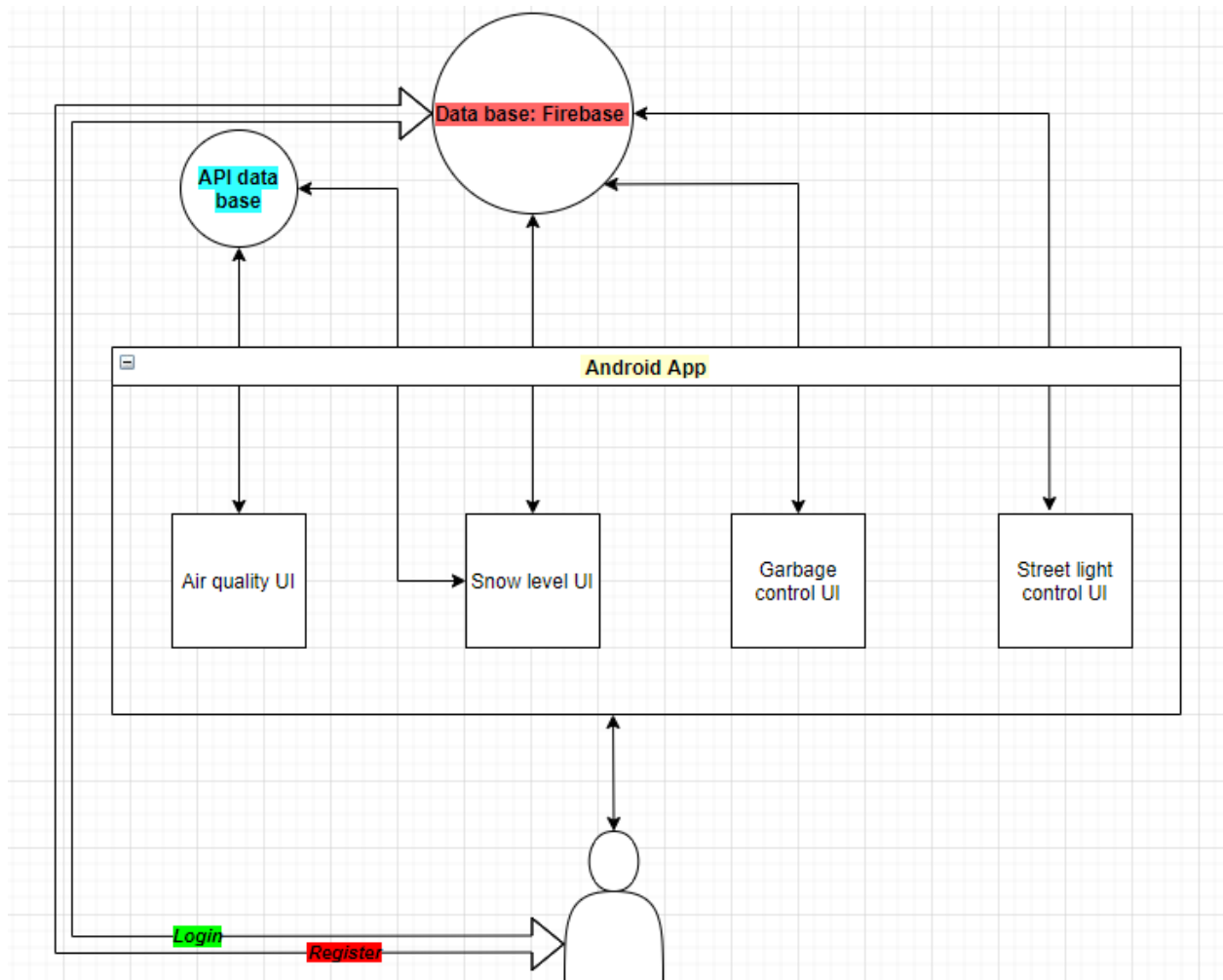| Dung Ly	Thanh Phat Lam	Dinh Hoa Tran	Hieu Chu
What did you do yesterday ? Firebase data design	**What did you do yesterday ?** Display data from API to proper field	**What did you do yesterday?** Finish city light layout design and implement to app	**What did you do yesterday ?** Complete layout for City Light Fragment
What will you to today ? Customer Review Screen layout/functions	**What will you to today ?** Change layout depending on AQI value	**What will you to today ?** (Absent 1 day)	**What will you to today ?** Complete functions for snow level fragment
Any Blockers ? No good data sources so insert manually	**Any Blockers ?** Not at this moments	**Any Blockers ?** Not at this moments	**Any Blockers ?** Finding data source

Sprint Retrospective

Sprint 3

Team Meeting Absence:
+Nov 13: Dinh Hoa Tran

Start

AQI API from aqicn.org

Firebase feature

Successfully finish Login/Register

Function for Customer Review Fragment

Stop

Layout Design

User database design

Runtime permission design

Continue

Complete Remaining functions

Add new Activity

Add data to Firebase

C4 Model

Design Principles

In this project, we use DRY and KISS principles. Every function should be simple and easy to read. Most of them should be used once only.
In code
These principles are not applied in this yet. Everything is still messy and it will be cleaned up in the next Deliverable.

Design Patterns

Creational Patterns - Builders
Creational Patterns - Singleton

Coding Progress

_ Add data to database (FireBase)
_ Interact with Database
_ Change UI & layout
_ Complete Login & Register
_ Half-complete settings screen

       +   Not complete runtime permission implementation
       +   Terrible layout

Coding Update

2. UI Complete
3. There are more than 10 java classes in the project
6,7 (not implement design principles, patterns yet)
8. Half-finish
9. Not implement runtime permission yet
10. Complete portrait lock
11. In Login,Register, City light fragment
12. Complete, in setting screen
13. In Air Quality Fragment
14,15. Login screen
16.
Demonstrate of
    a. AlertDialog: Login Screen
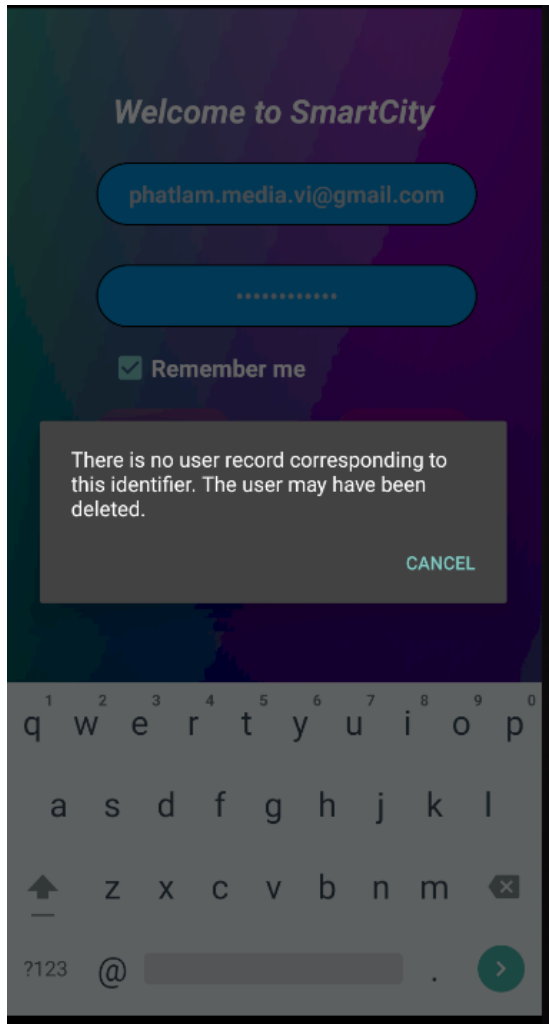
b. SnackBar:
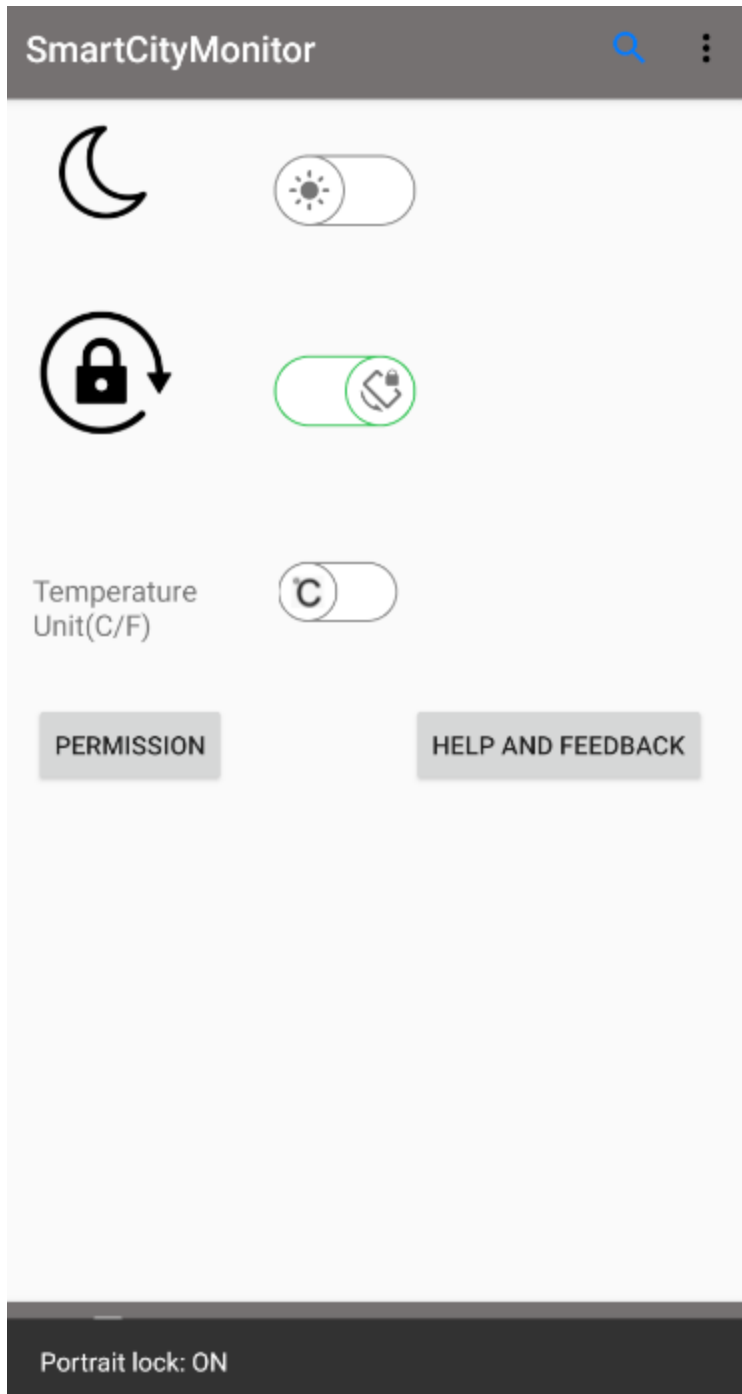
c. Toast:
   Toast displays when user registers successfully
d. Notification:

8:23

Sun, Nov 14 ▼△ ▮ 100%

danks76429@gmail.com

Notifications

⬤ SmartCityMonitor • now

Smart City
Registered Successed !

Silent   ✕
REGISTER   LOGIN

🤖 Android System

Serial console enabled
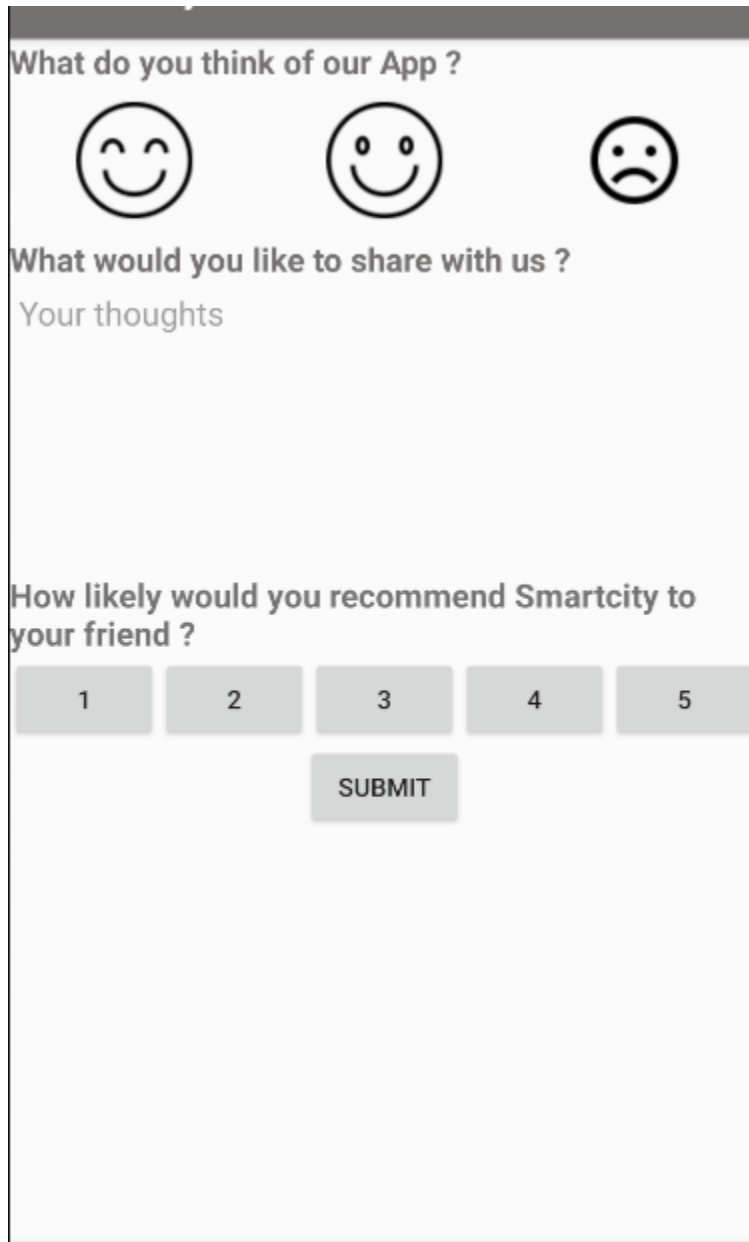Performance is impacted. To disable, check bootloader.

💾 Settings   ⌄

Virtual SD card
Tap to set up

Manage   Clear all

17.
Customer Review Screen
In Menu> Settings > App Setting > Help & Feedback

What do you think of our App ?

What would you like to share with us ?

Your thoughts

How likely would you recommend Smartcity to your friend ?

| 1 | 2 | 3 | 4 | 5 |

SUBMIT

18. Completed

(There are bugs in the app that can crash: Rotate from portrait to horizontal in Air Quality fragment crash (RetainFragment problem), but if the phone is already rotated, it works).