



Android

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1. Requirements analysis

Requirements

Action	Description
Login	Users must be able to log in to access personalized features and retain their preferences.
Register	Allows new users to create an account to personalize and save their preferences.
Set Customer Info	Users can set and update personal details like name, interests, and password for a tailored app experience.
View Map	Display a map showing store locations, facilitating easy navigation to stores of interest.
View Hunted List	Provide a list or collection of items the user has interacted with or saved, known as "hunted" items.
View Store	Enable users to view detailed information about stores, including items available, through the app.
Feedback	Collect user feedback on items and notifications to improve the recommendation algorithm and app functionality.

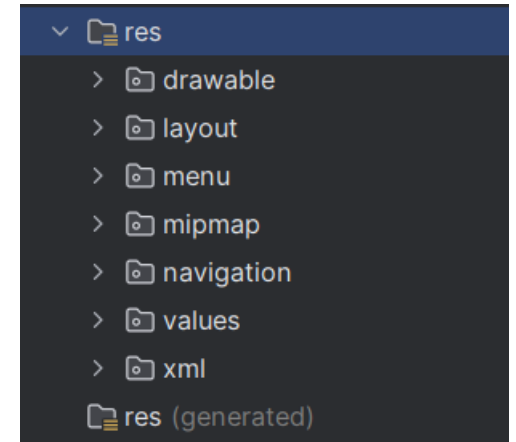
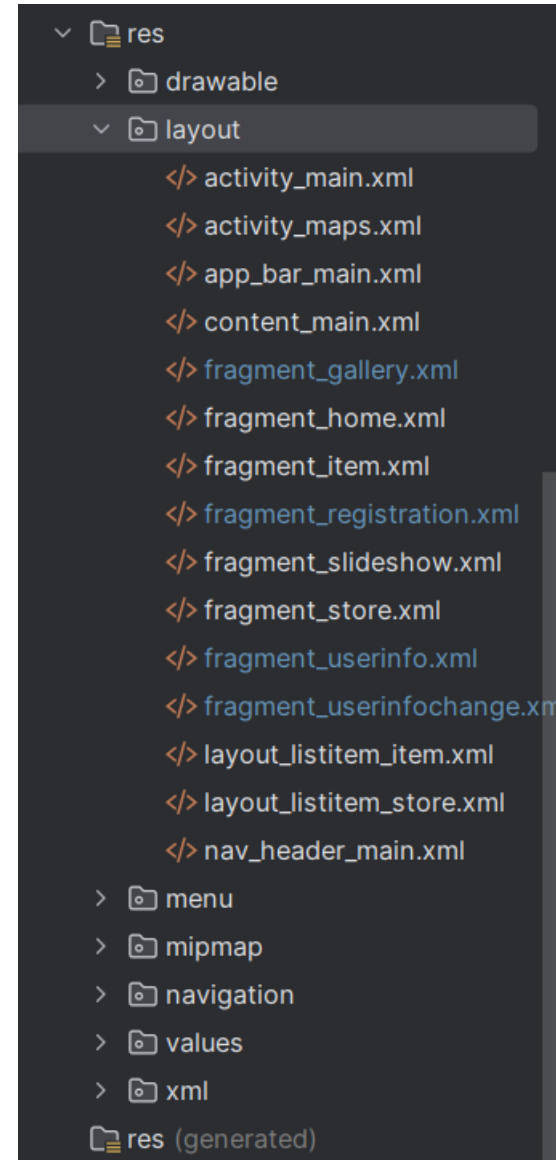
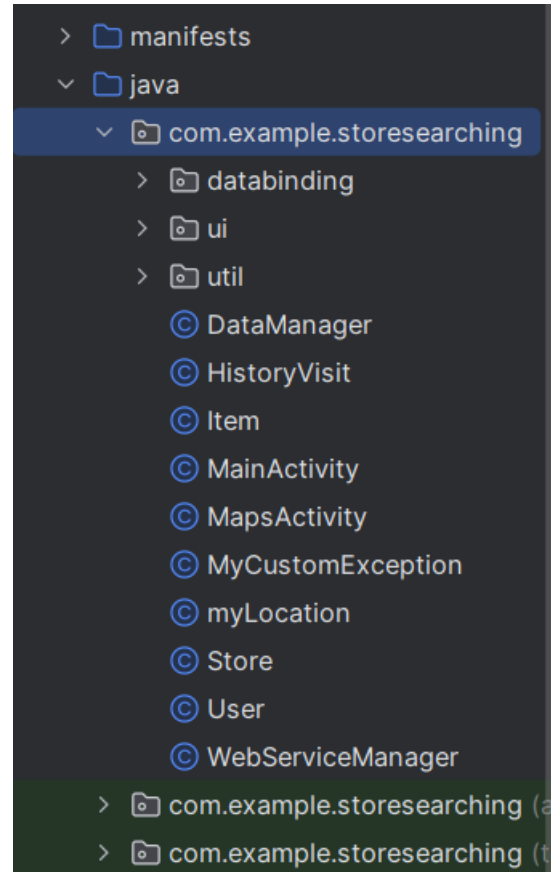
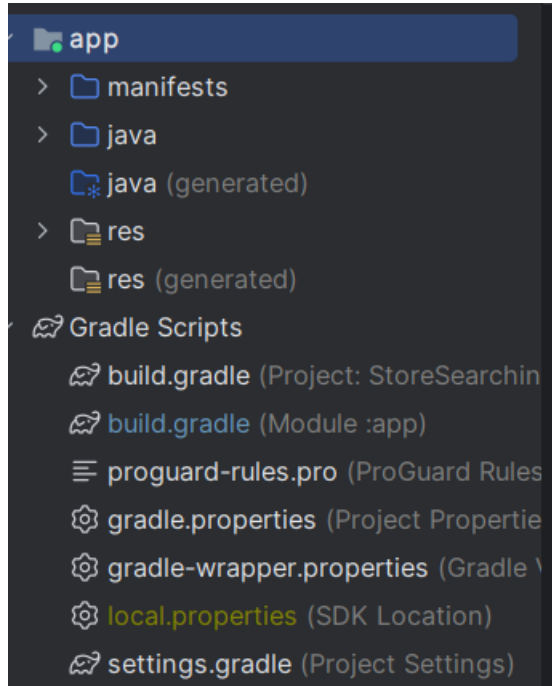
2. System architecture

Interface Specification

frontend-database

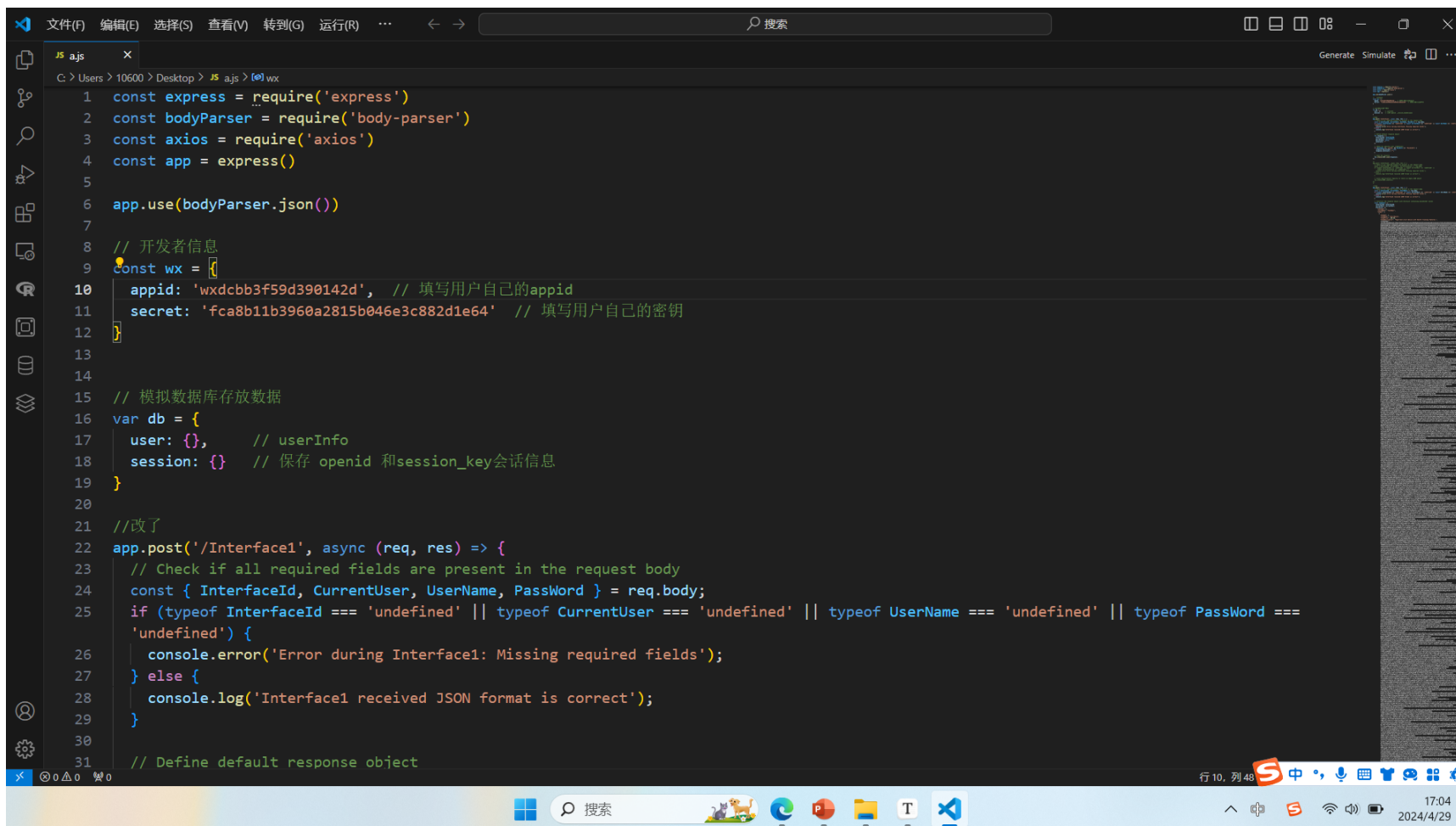
- Interface 1 frontend::Login ==> database::Login
- Interface 2 frontend::Location ==> database::Location
- Interface 3 frontend::Store ==> database::Store
- Interface 4 frontend::HuntedStore ==> database::HuntedStore
- Interface 5 frontend::HuntedStore==>database::HuntedStore
- Interface 6 frontend::Item ==> database::Item
- Interface 7 frontend::Map ==> database::Map
- Interface 8 frontend::Feedback2Store ==> database::Feedback2Store
- Interface 9 frontend::Feedback2Item ==> database::Feedback2Item
- Interface 10 frontend::Customer ==> database:: Customer
- Interface 11 frontend:: Customer==>database::Customer
- Interface 12 frontend::Registration ==> database::Registration

3. Code



4. Test

mock server



```
1 const express = require('express')
2 const bodyParser = require('body-parser')
3 const axios = require('axios')
4 const app = express()
5
6 app.use(bodyParser.json())
7
8 // 开发者信息
9 const wx = {
10   appid: 'wxdcbb3f59d390142d', // 填写用户自己的appid
11   secret: 'fca8b11b3960a2815b046e3c882d1e64' // 填写用户自己的密钥
12 }
13
14
15 // 模拟数据库存放数据
16 var db = {
17   user: {}, // userInfo
18   session: {} // 保存 openid 和session_key会话信息
19 }
20
21 //改了
22 app.post('/Interface1', async (req, res) => {
23   // Check if all required fields are present in the request body
24   const { InterfaceId, CurrentUser, UserName, Password } = req.body;
25   if (typeof InterfaceId === 'undefined' || typeof CurrentUser === 'undefined' || typeof UserName === 'undefined' || typeof Password ===
26     'undefined') {
27     console.error('Error during Interface1: Missing required fields');
28   } else {
29     console.log('Interface1 received JSON format is correct');
30   }
31   // Define default response object
```

4. Test

2.Android user registration
 success:
 input
 output
 fail:
 input
 output
5.Android user login
 Success:
 input
 output
 Fail:
 input
 output
8.Modify Android user info
 Success:
 input
 output
 Fail:
 input
 output
22.Android recommend merchants
 input
 output
24.Android update Hunted List

26.Android display Hunted List

input

output

29.Feedback to Item

input

output

30.Feedback to Store

input

output

33.Android search for items

input

output

34.Android search for merchants

input

output

36.Android map interface

input

output

part of the test sample

Registration

18:15

← Registration


Registration

Username

password

Duplicate password

CONFIRM



18:28

← Registration


Registration

Username

input error
password and duplicate password
do not match

Duplicate password

CONFIRM



18:28

← Registration


Registration

Username

Incomplete input
user name or password or
Duplicate password not entered

Duplicate password

CONFIRM



17:36

☰ Explore

Search For Stores SWITCH


🔍


Number1: TechGear VISITSTORE

Description:Your go-to place for the latest technology and gadgets. 3.9155921136682763km

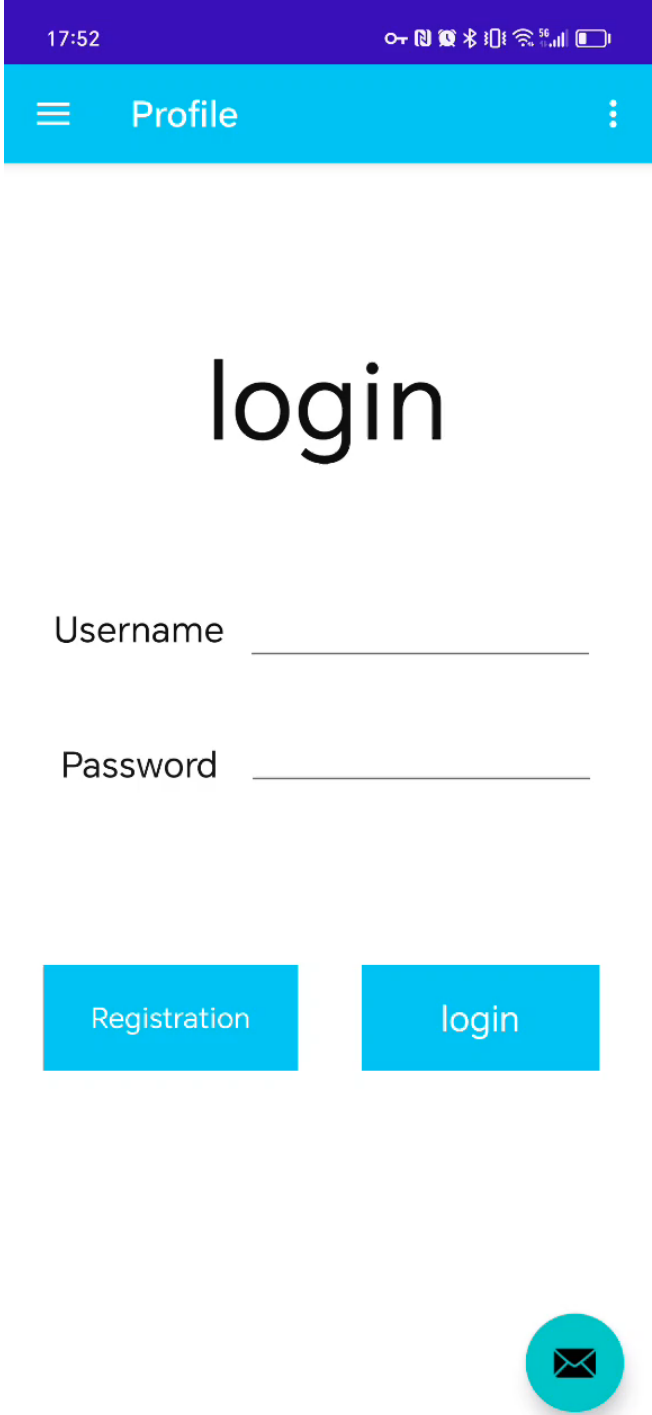
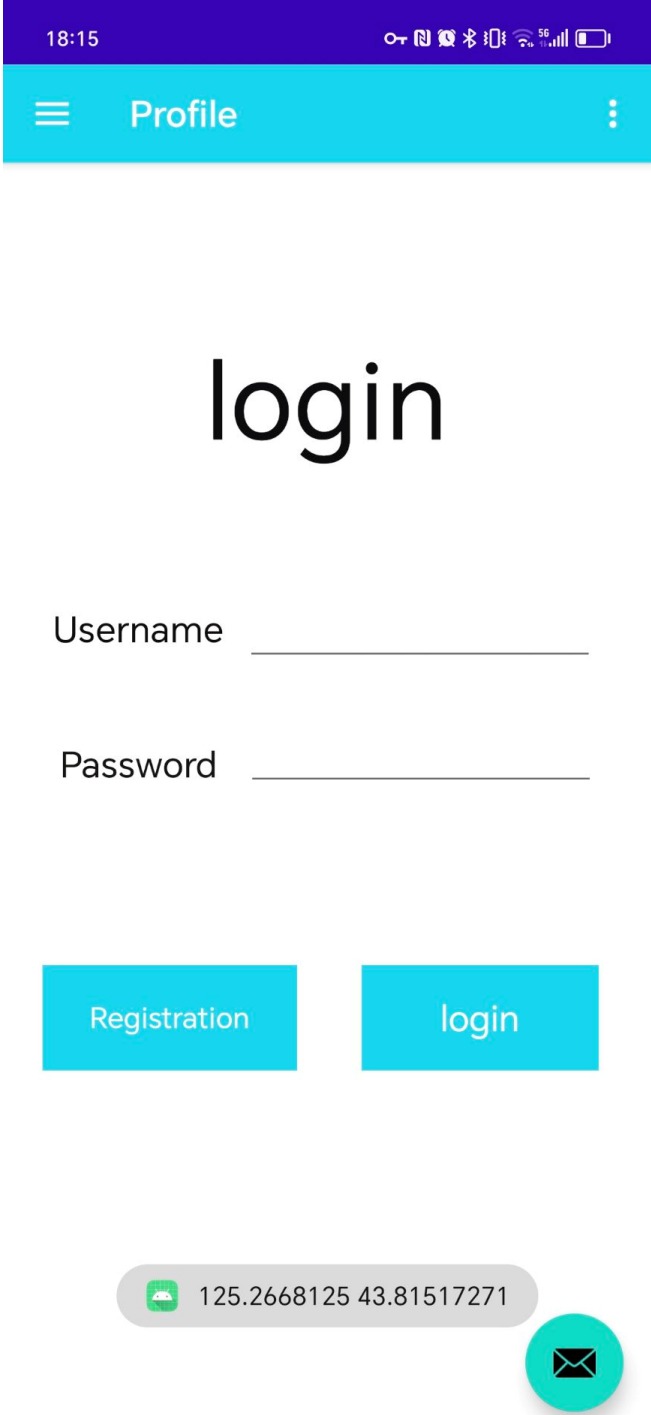
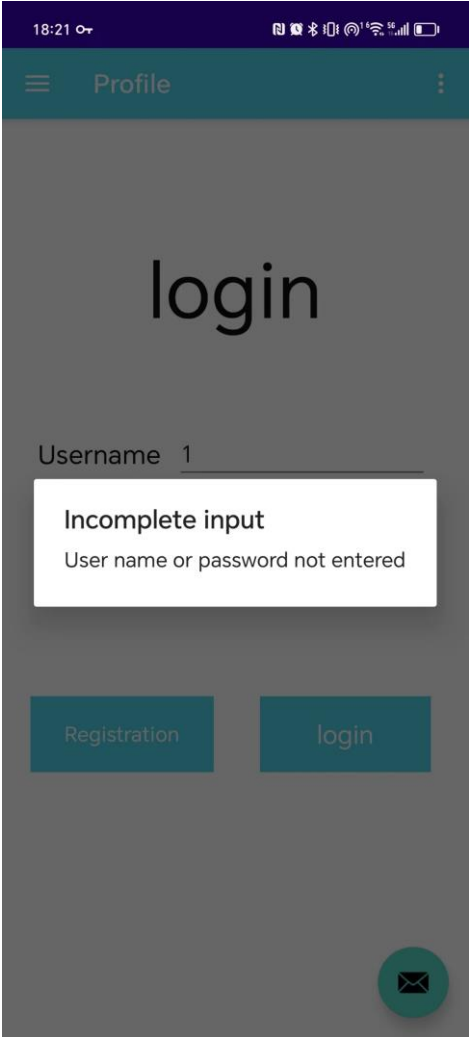
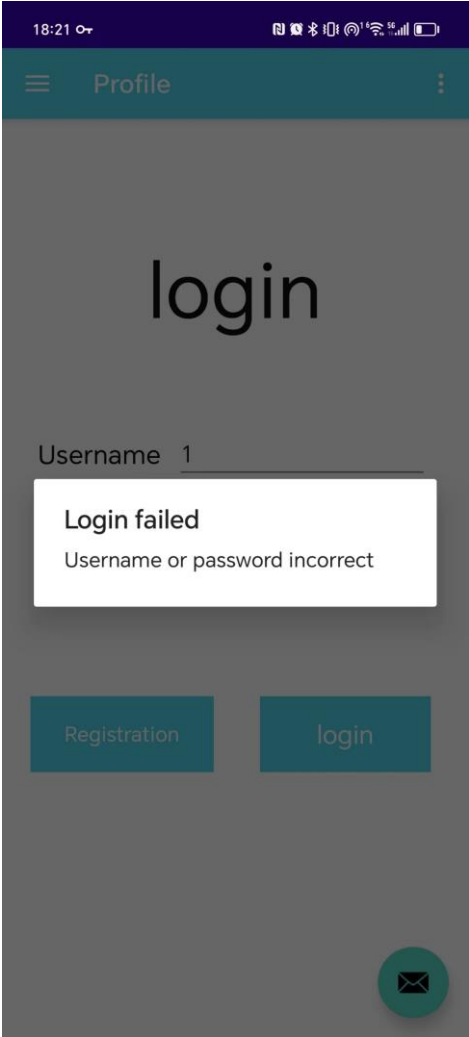
Number2: SportyLife VISITSTORE

Description:Everything you need for a sporty lifestyle. 1.9000976220812964km

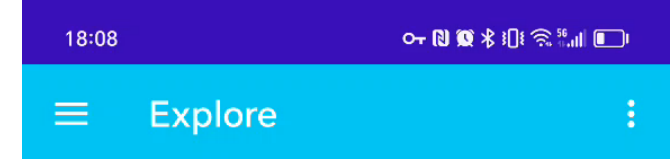
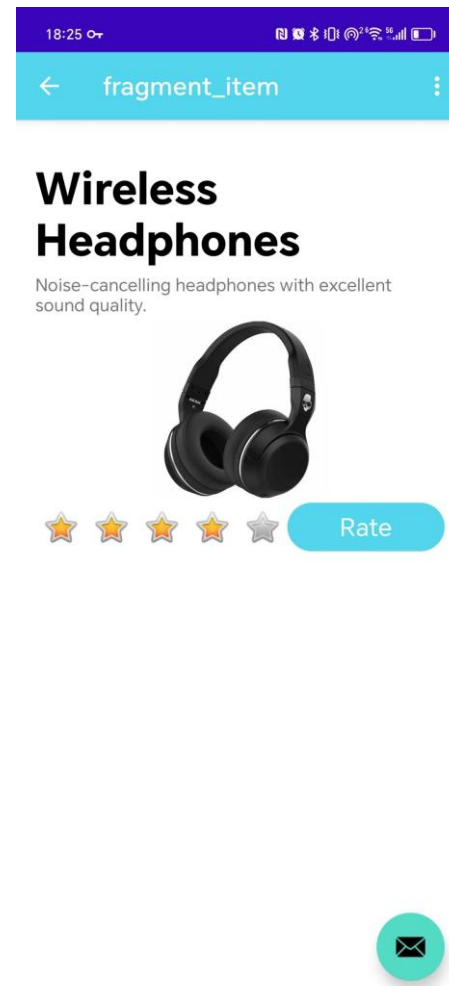
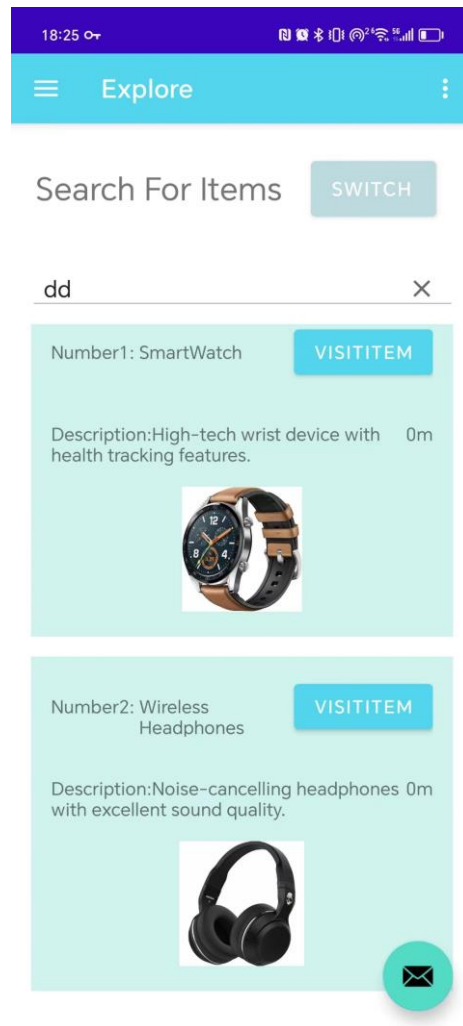
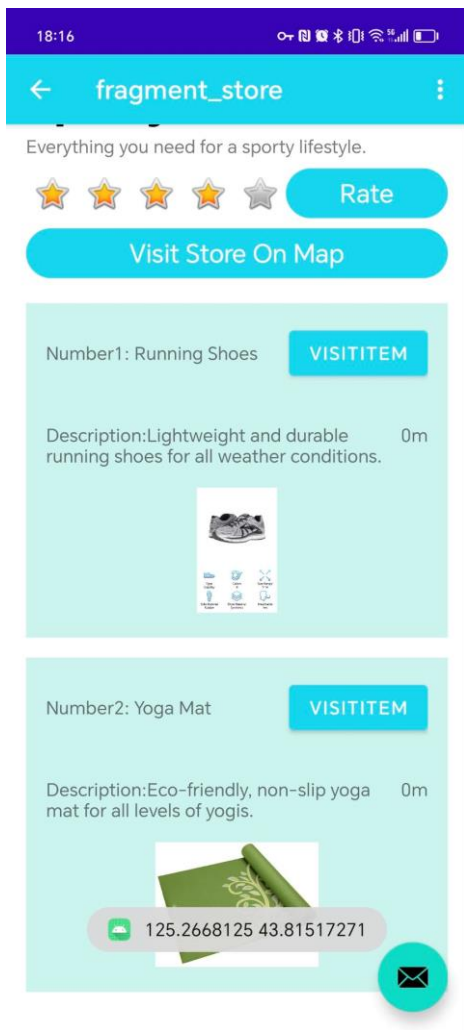
 125.266781 43.815317



Login



Explore Stores

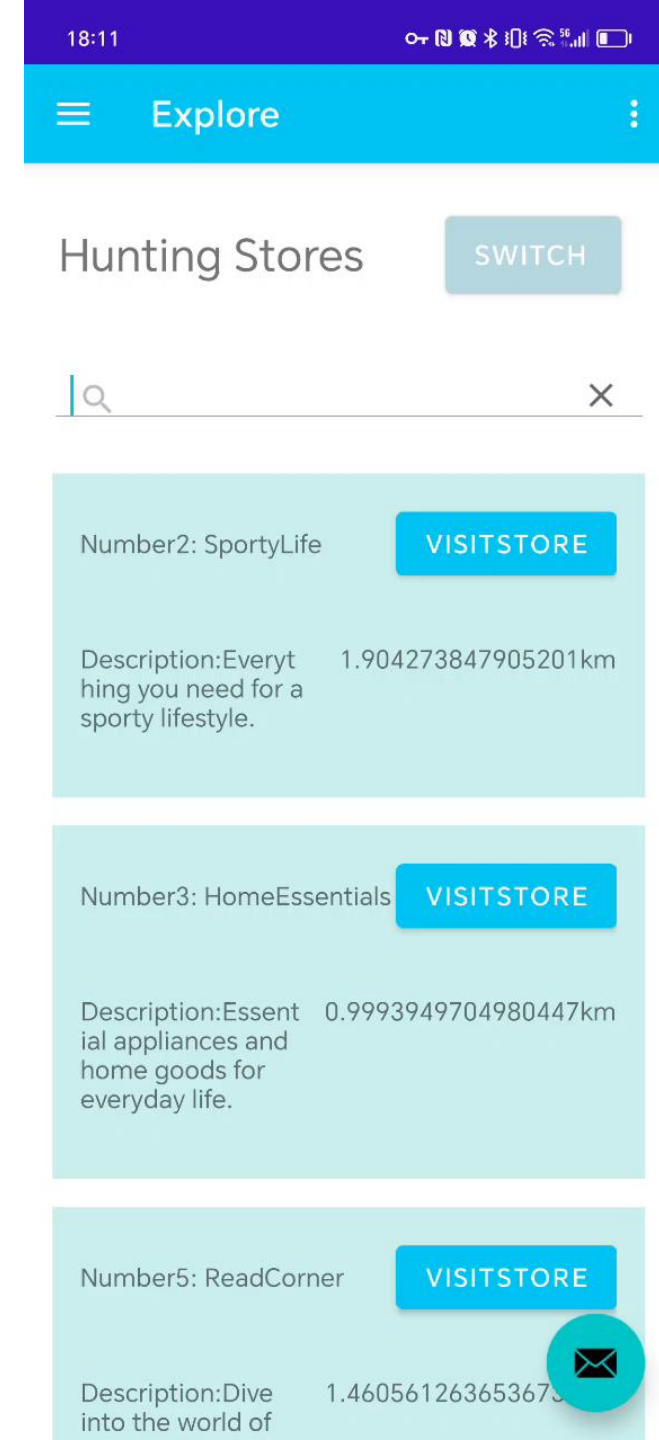


Search For Stores SWITCH

Search For Stores SWITCH

125.2668 43.815348

Map / About



5. Future

(1) Integration Testing



Currently the front end does not interact with a real database but with a mock server.

5. Future

(2) Improve interface documentation

Interface 2 **frontend::Location ==> database::Location**

```
{
  "InterfaceId": {
    "type": "integer",
    "minimum": 1,
    "maximum": 33
  },
  "CurrentUser": {
    "type": "string",
    "minLength": 1
  },
  "CurrentLocation": {
    "type": "object::Location",
    "properties": "Illustrated in appendix"
  }
}
```

json

- Description of the interface: When the user needs data related to location information, such as viewing a map, they need to provide the CurrentLocation to the database.

5. Future

(3) Improve the function

The display Huntedlist function is **not fully implemented** and will be further improved in the next stage.

