



Fitrition

Group BCS2

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01

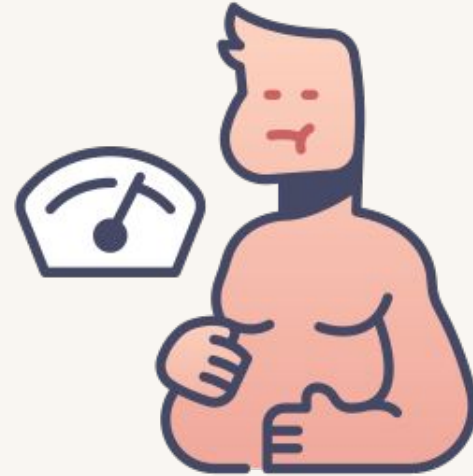
Background Information

Problem Statement

Rising obesity in Singapore

59%

of Singaporeans exceeded the
Recommended Calorie Intake



Opportunity Statement



Smart Nation



Health-conscious



Goal of Ftrition



Helps **integrate exercise** and **healthy eating** into daily life by:

1

Social Page

Motivating users to stay on the healthy lifestyle

2

Tracker Page

Helping you to keep track of your activities

3

Explore Page

Facilitating you to find nearby eateries and fitness facilities

Target Audience

Smartphone users who want to integrate **healthy lifestyles** in their daily lives.

- Prefer healthier food options
- Stay active
- Be in a fitness community

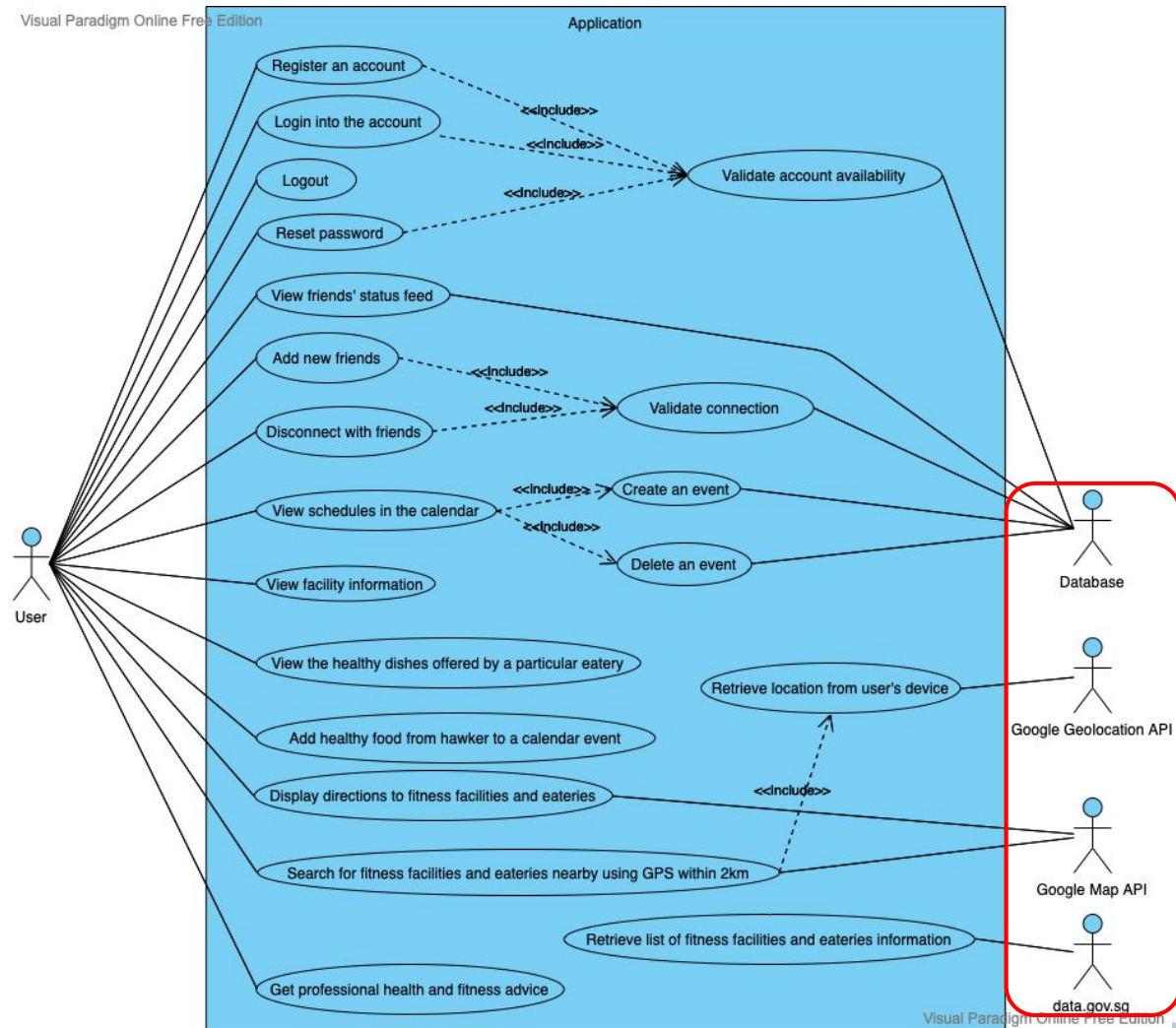




02

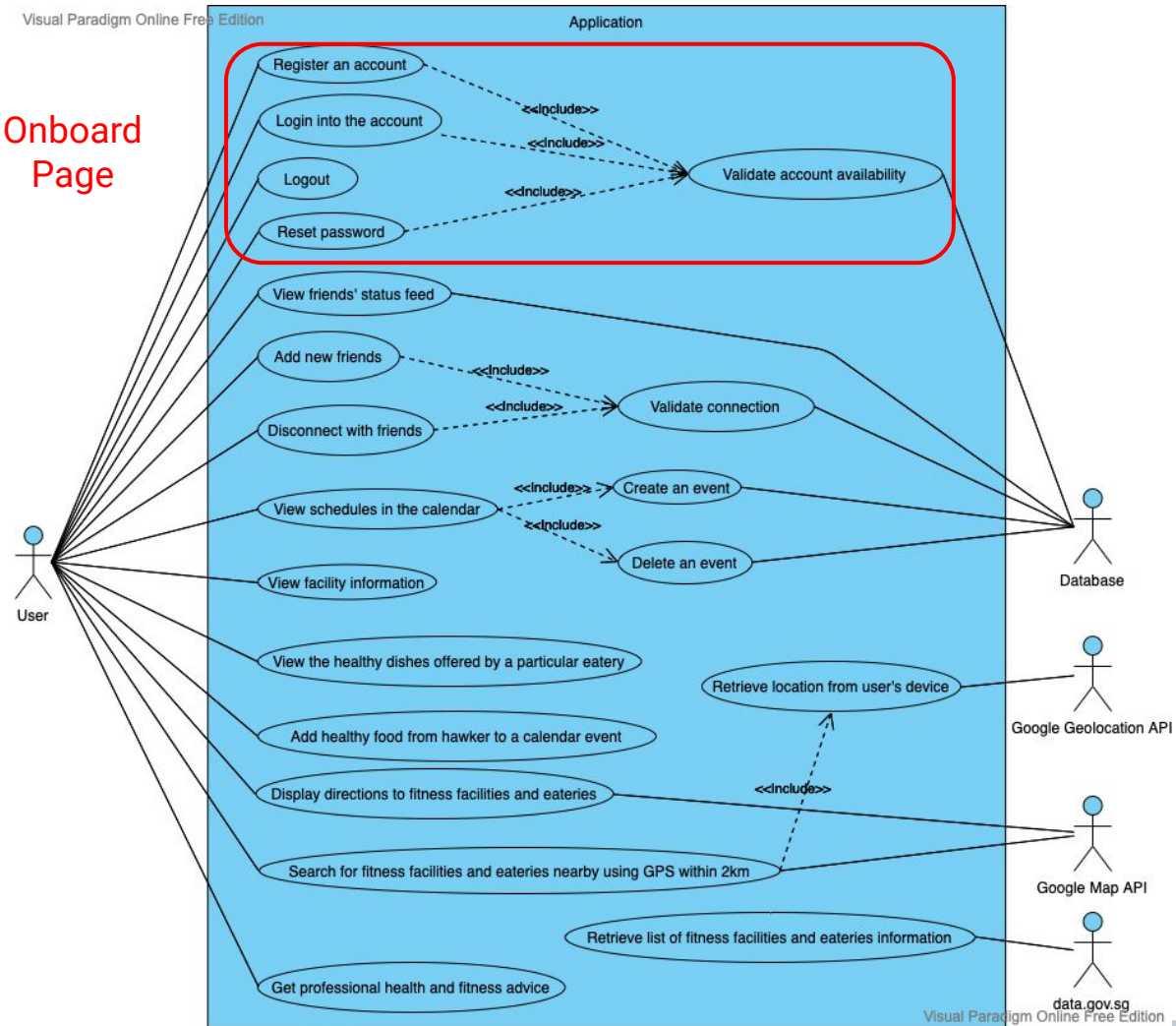
Friction's Capabilities

Use Case Diagram

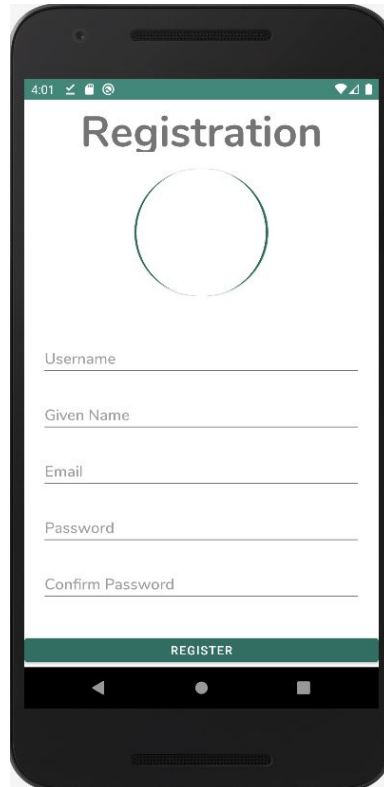
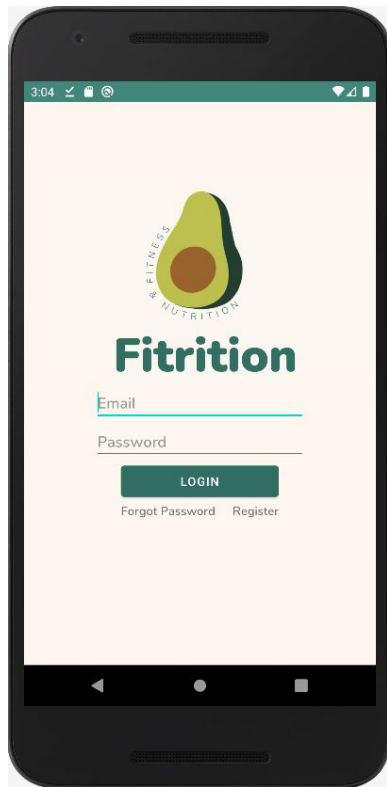


Use Case Diagram

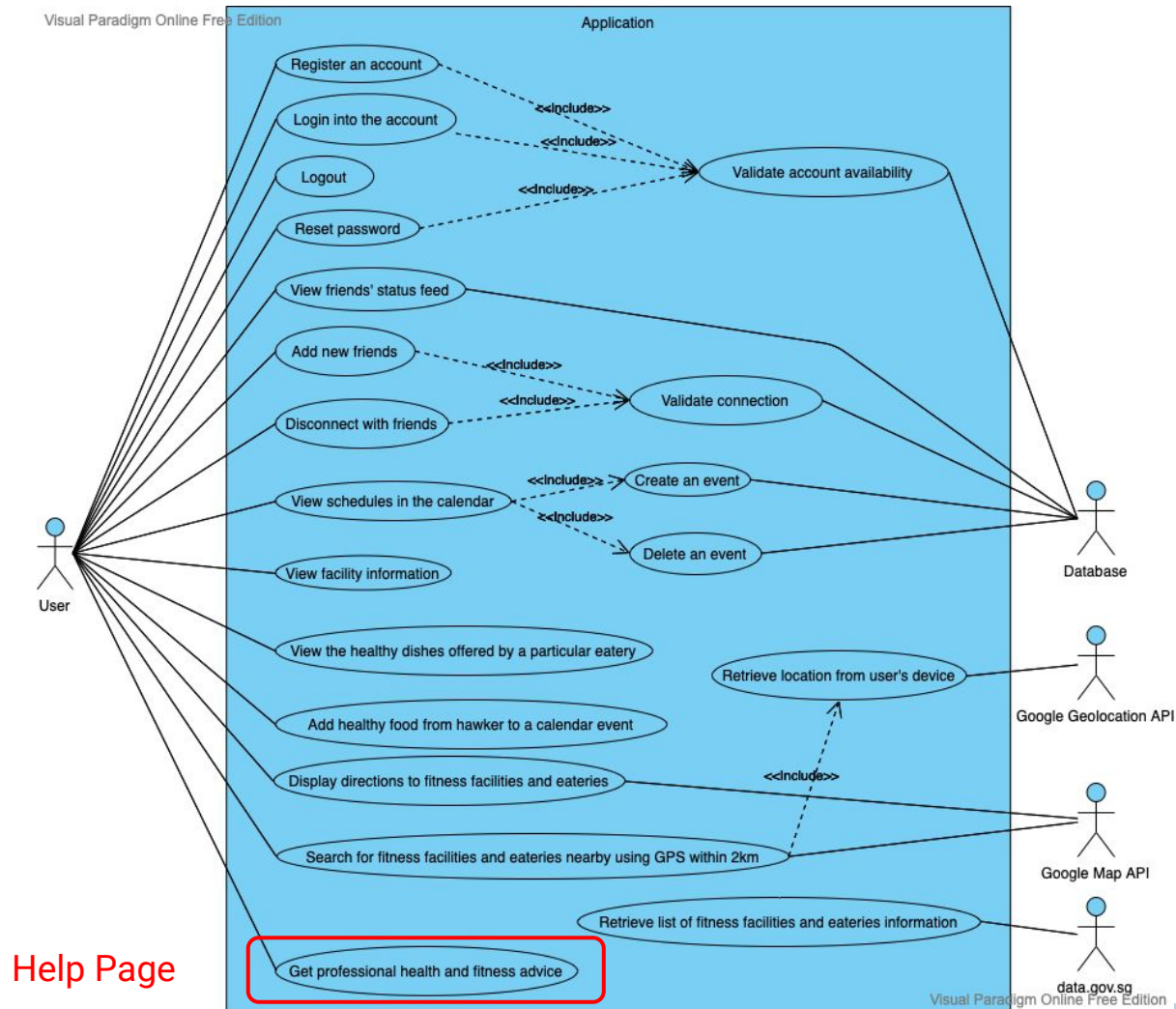
Onboard
Page



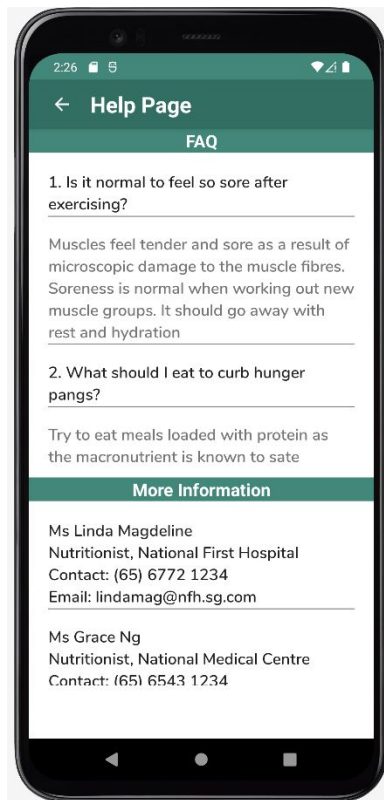
Onboard Page



Use Case Diagram

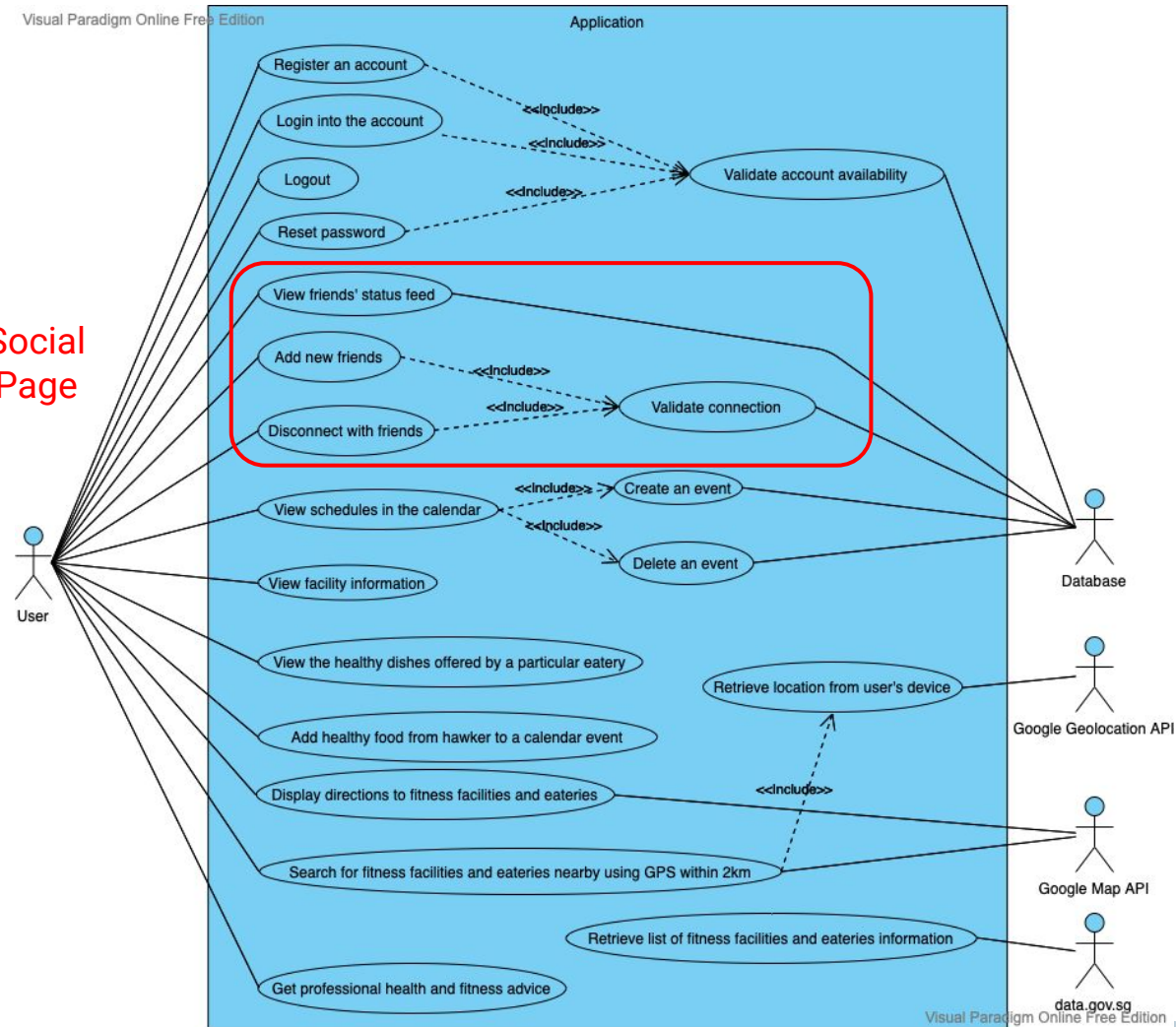


Help Page

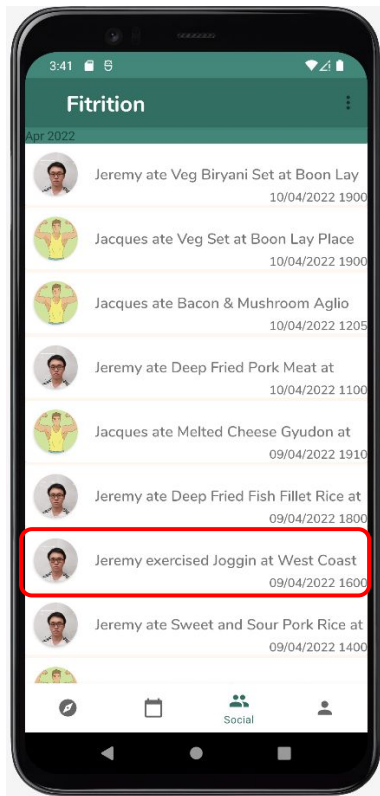


Use Case Diagram

Social
Page



Social Page



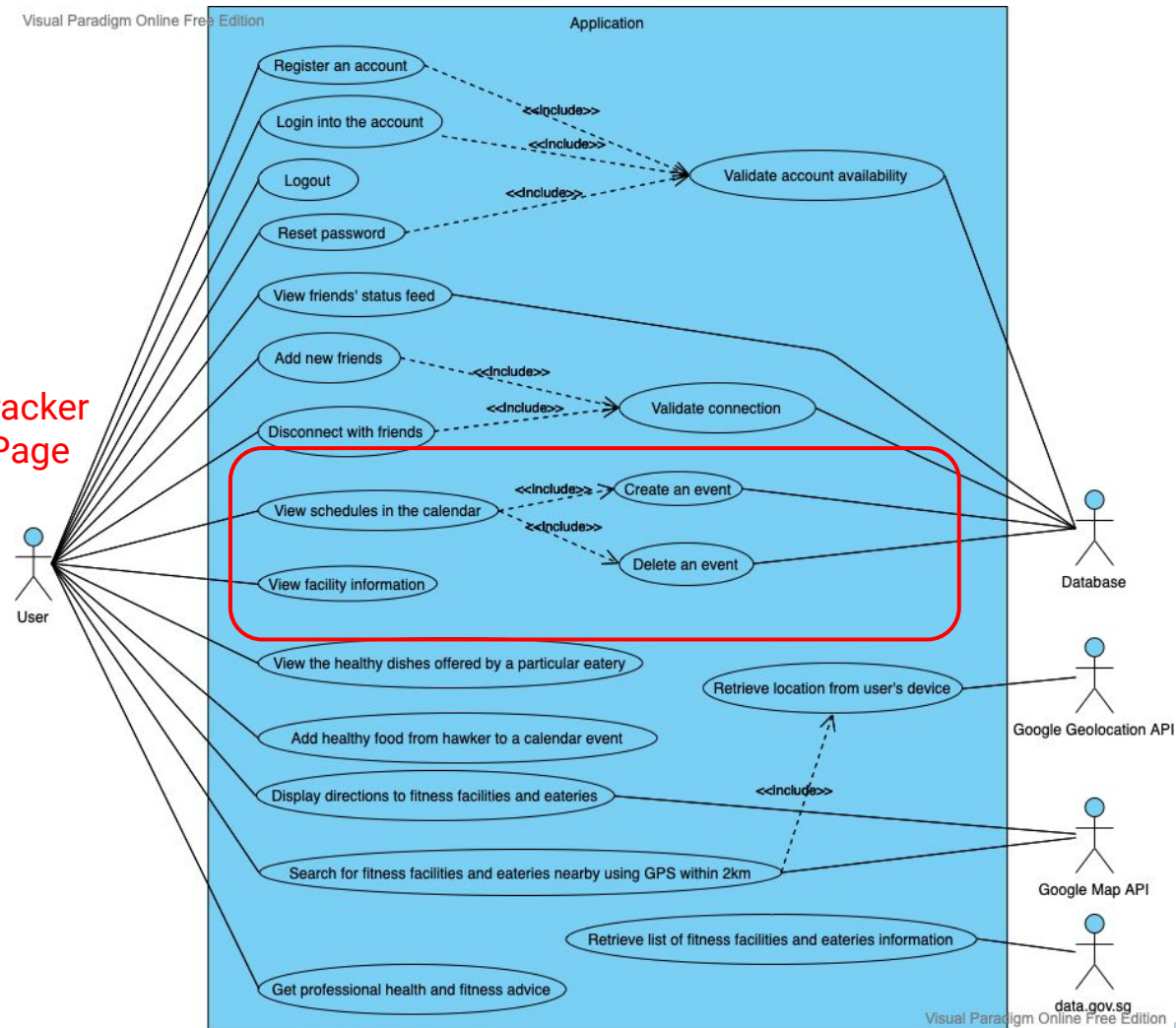
1

Social Page

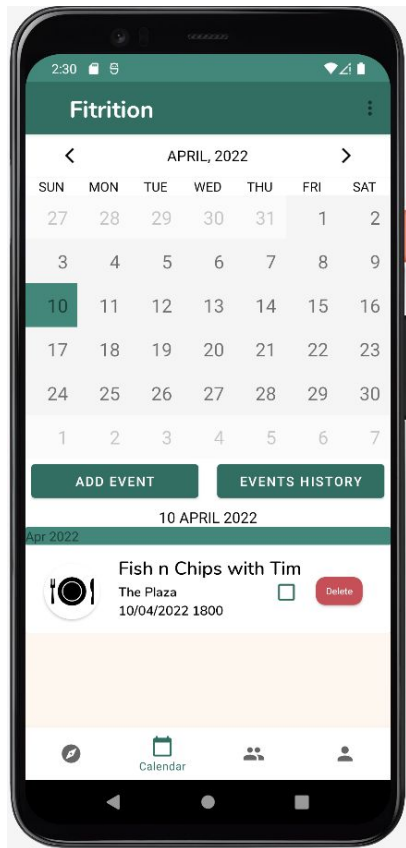
Motivating users to stay
on the healthy lifestyle

Use Case Diagram

Tracker
Page



Tracker Page



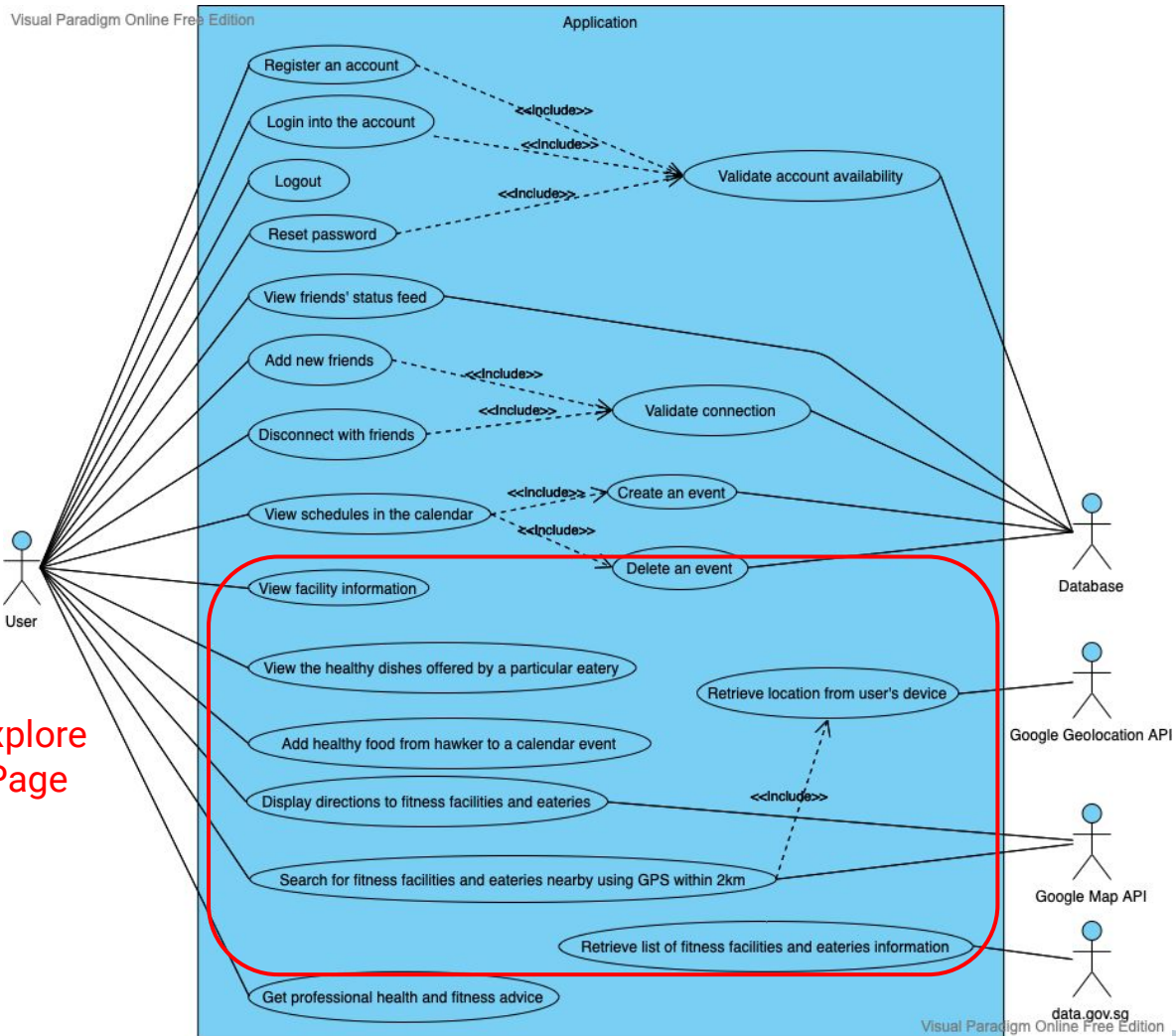
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Tracker Page

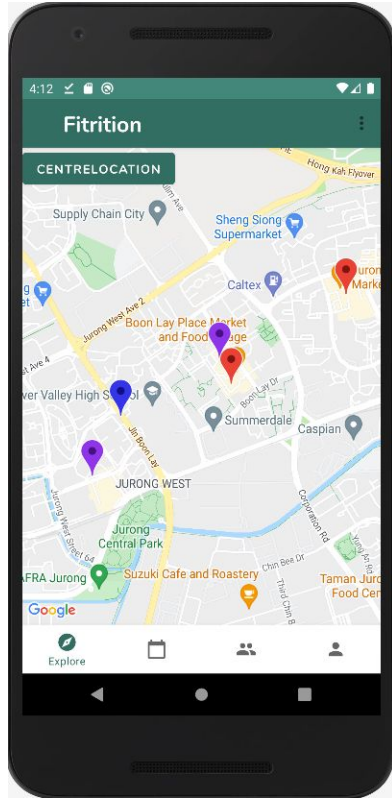
Helping you
to keep track of
your activities

Use Case Diagram

Explore
Page



Explore Page



3

Explore Page

Facilitating you to find nearby eateries and fitness facilities



03

Live Demonstration



04

Project Implementation

Platforms used for project management



Visual Paradigm

 **Lucidchart**



Google Drive

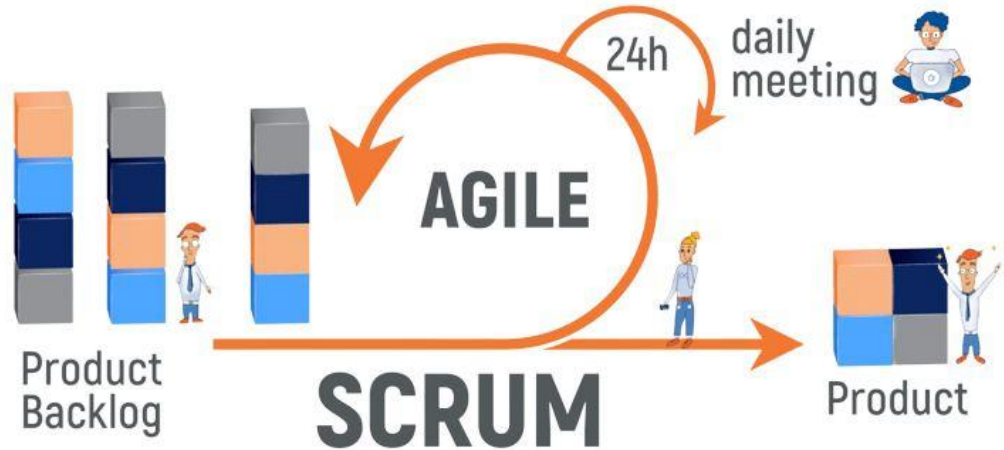
Good SE practices used

1

AGILE methodology

2

Scrum



Good SE practices used

1

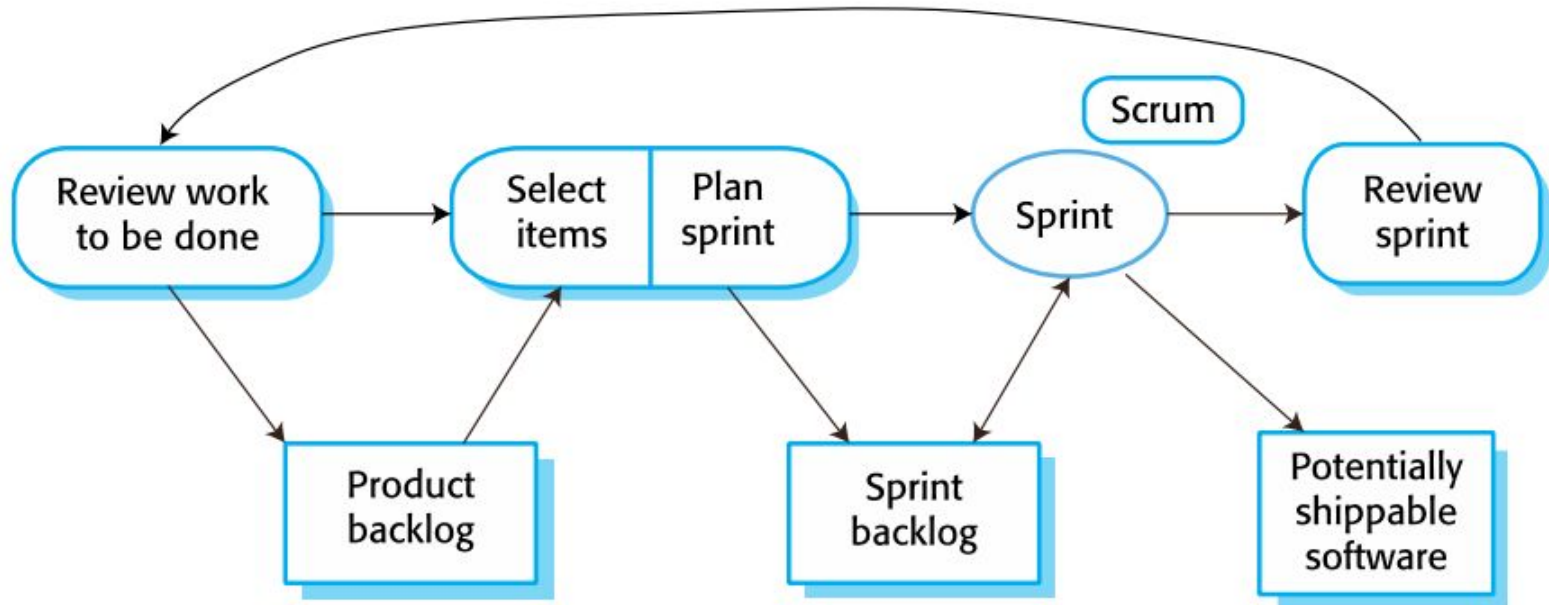
AGILE methodology

- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

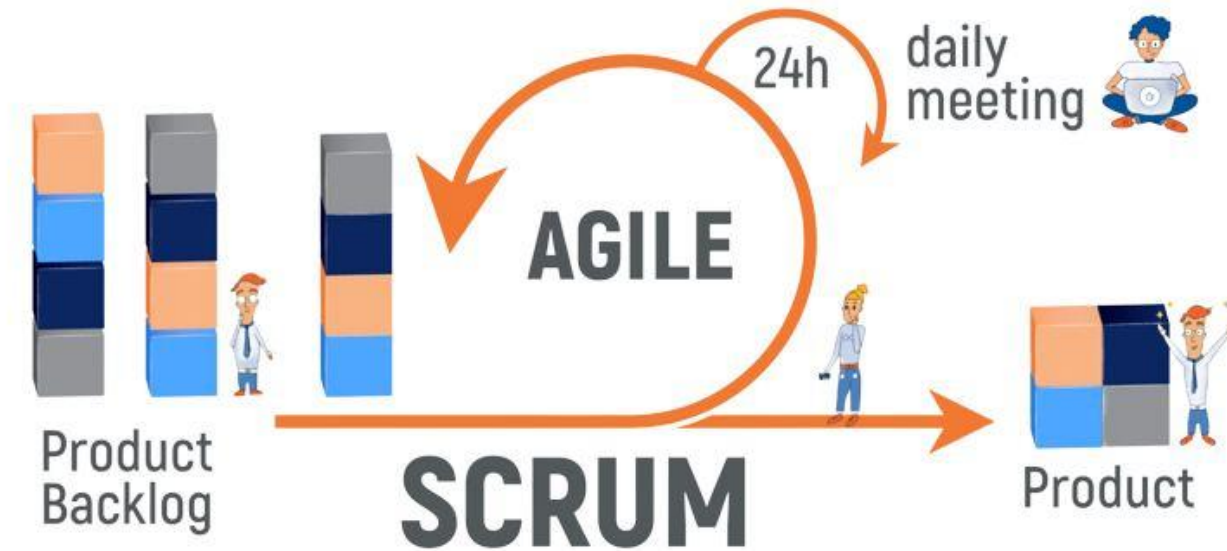
Good SE practices used

2

Scrum



Good SE practices used



Strategy Pattern

Problem:

- View facility object should be interchangeable depending on what the user clicks

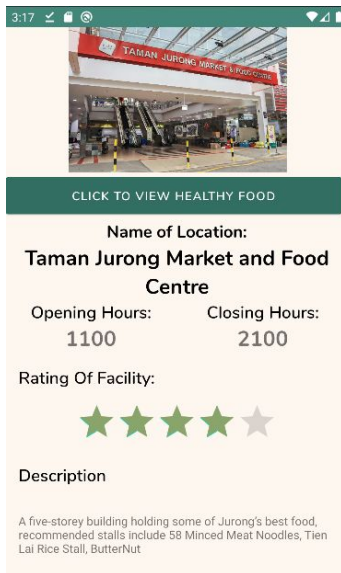


Image showing layout
for Hawker Centre

Which view class should
we use?

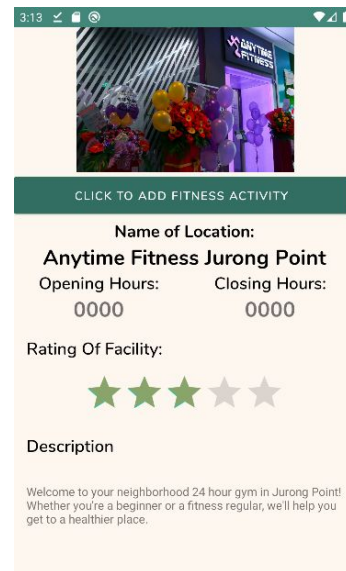
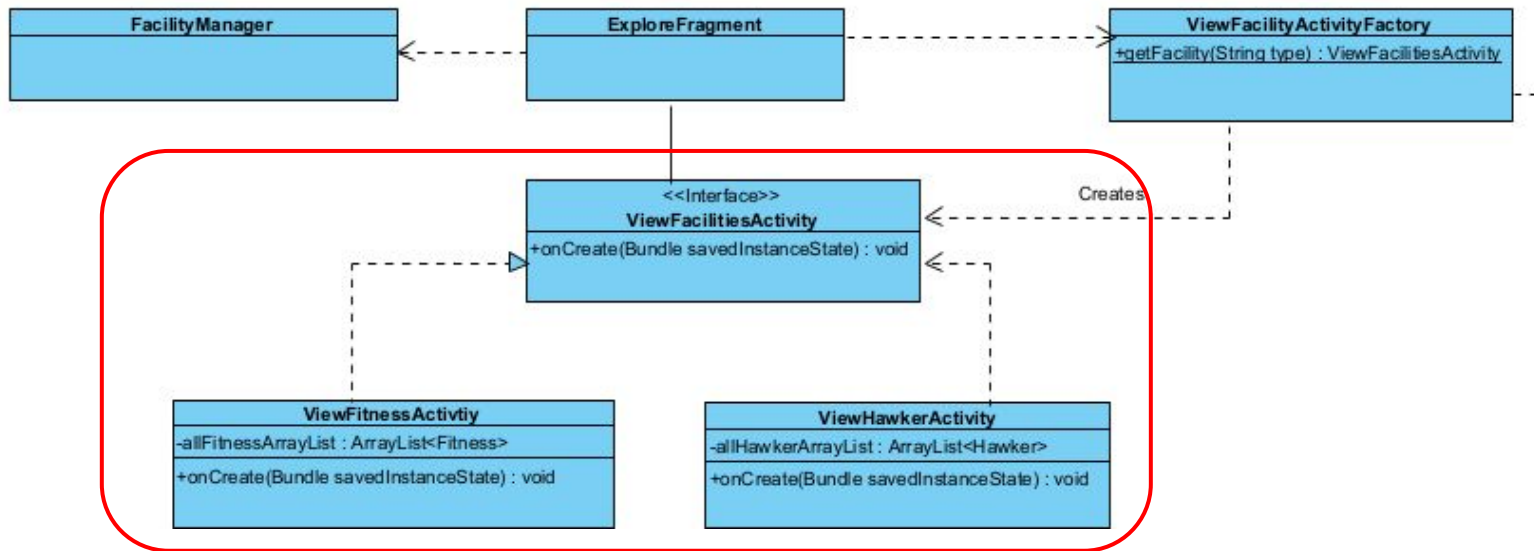


Image showing layout
for Fitness Facility

Strategy Pattern

Solution:

- Creating an interface to interact with the explorer Fragment
- Allow interchangeability of objects during runtime because the appropriate OnCreate() method will be executed depending on the marker chosen by the user



Factory Pattern

Problem:

- We have multiple View facility activity classes, but we'll only which one to instantiate during runtime

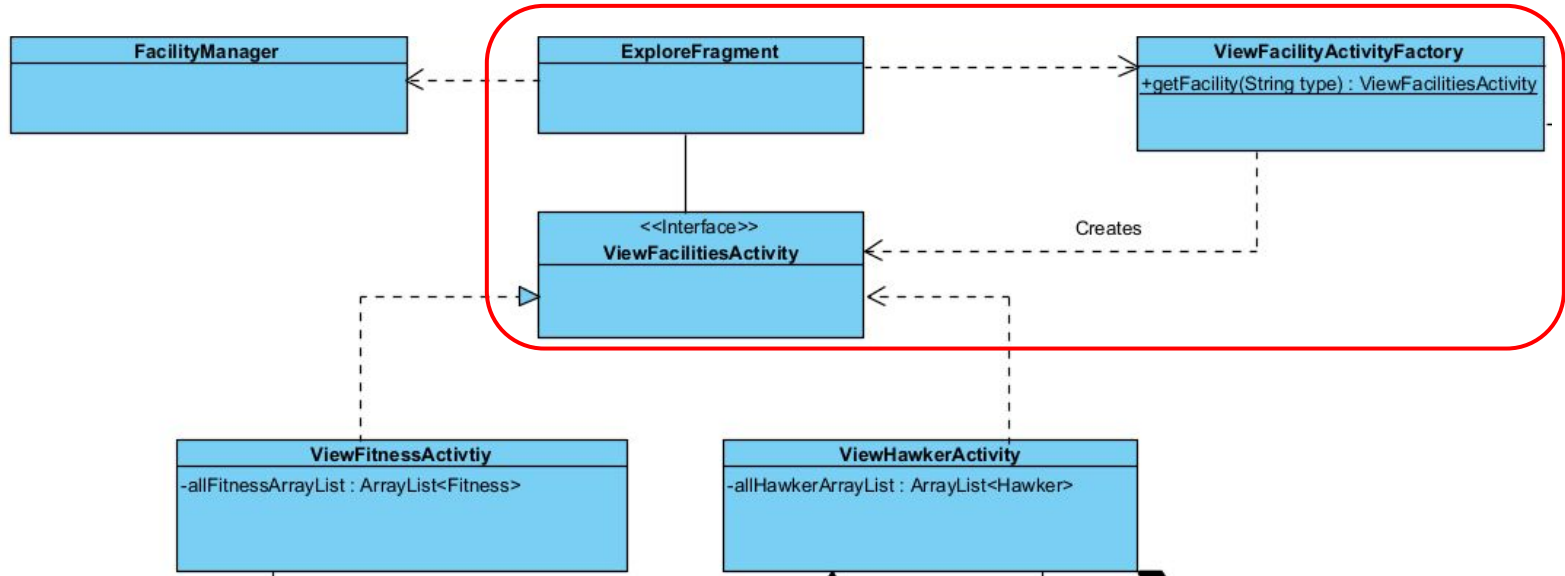


How do I determine which
of the multiple classes do I
initialize?

Factory Pattern

Solution:

- Define a facility Activity Factory which consist of a static getFacility() to instantiate the different Activity objects



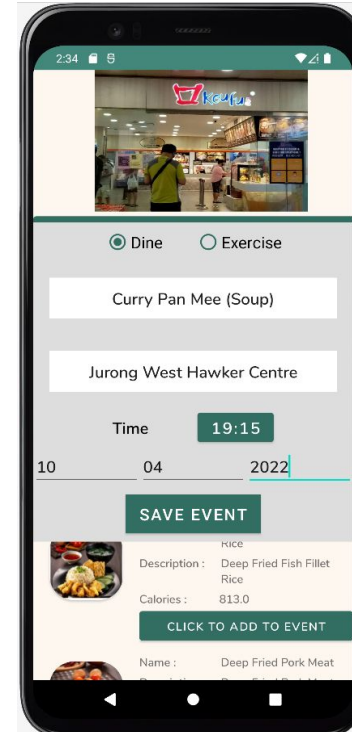
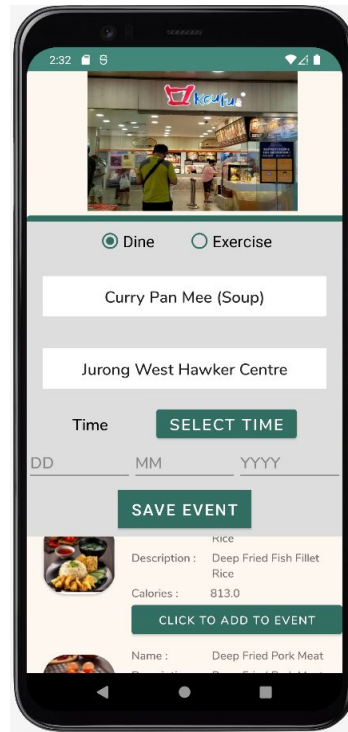
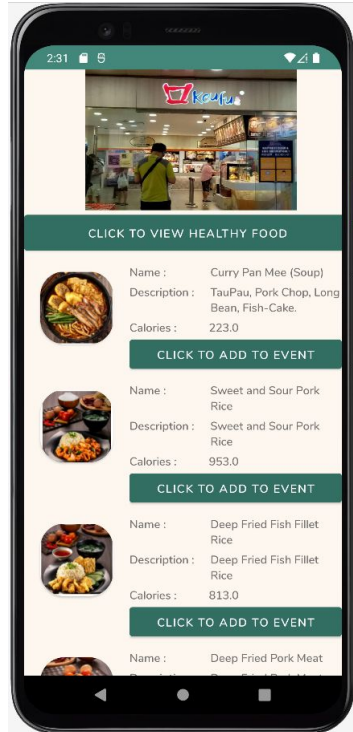


05

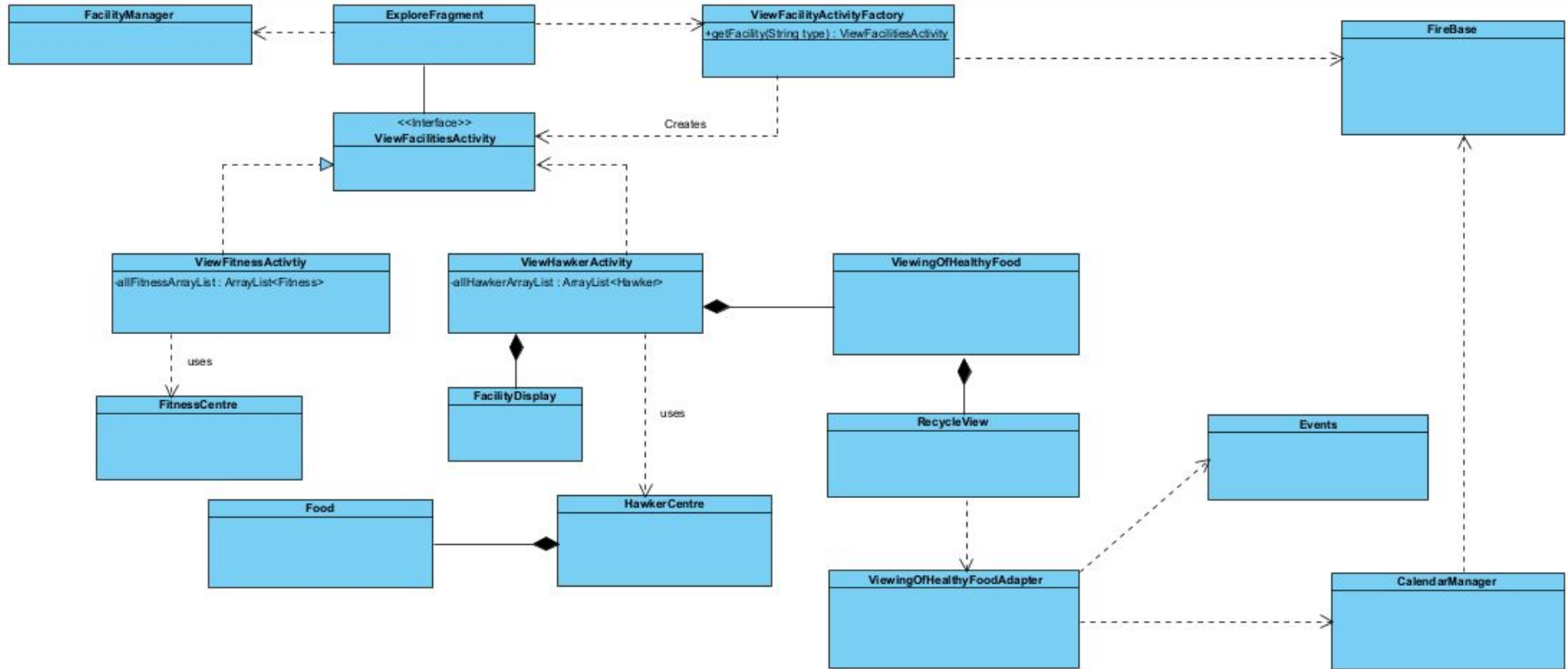
Use Case & Testing

Use Case:

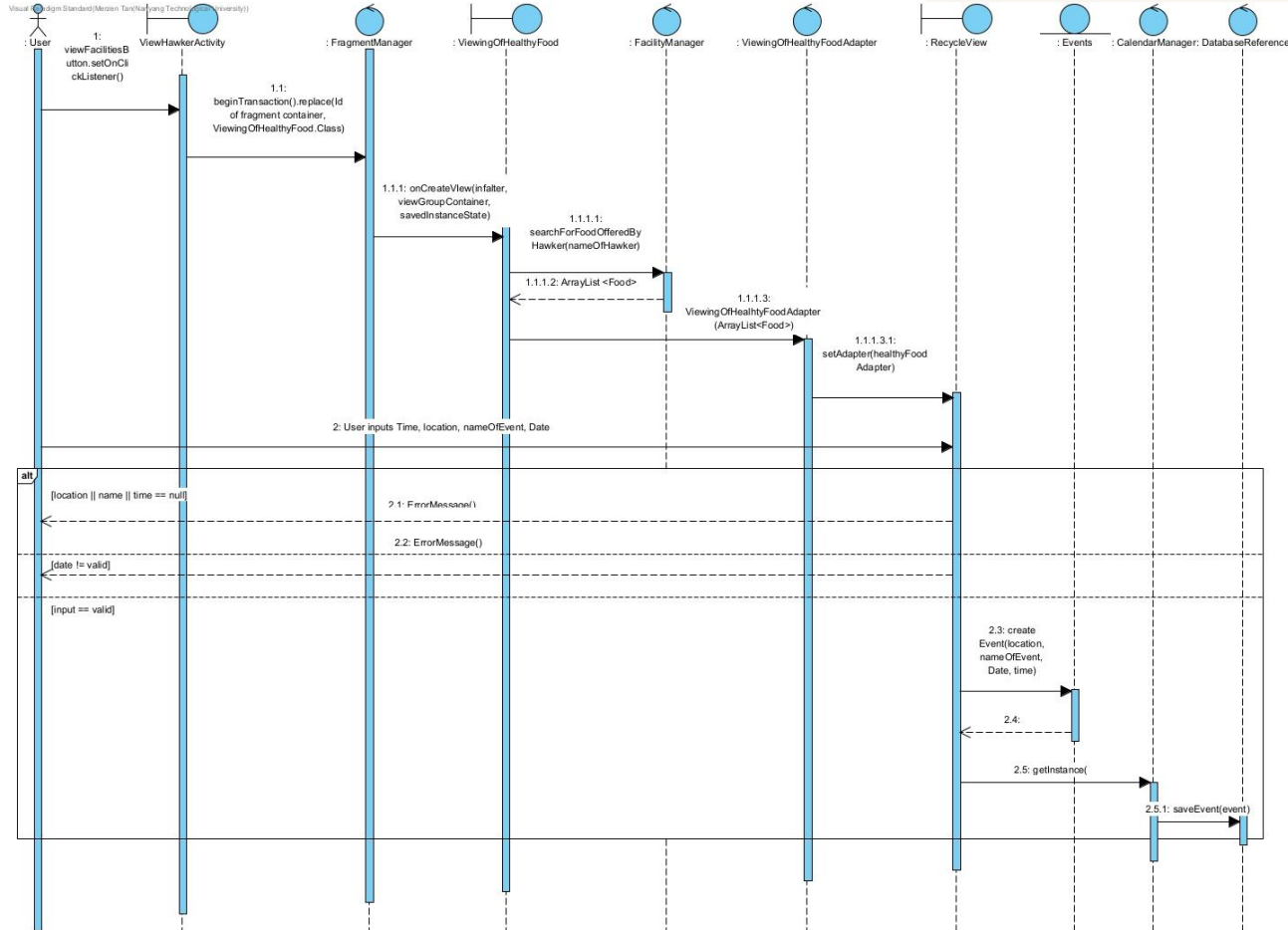
Add healthy food from eatery to a calendar event



Class Diagram



Sequence Diagram



Test Case

Generic cases

Test ID	Scenario	Expected Results	Actual Results
1	Create event with all details filled in	Event successfully created	Event successfully created
2	Create event with incomplete fields	The system prompts the user with the respective message(s) to fill up the required field(s)	The system prompts the user with the respective message(s) to fill up the required field(s)
3	Create event with invalid Time (not between 0000 and 2359)	Time is not valid, please enter number in range of 0000 to 2359	Time is not valid, please enter number in range of 0000 to 2359

Test Case

Specific cases (Combination)

Type Event	Type Location	Event Time	Expected Results	Actual Results
<Anything>	<Anything>	Between 0000 and 2359	Successful event creation	Successful event creation
<Anything>	<Anything>	Empty("") / Out of range	Time is not valid, please enter a valid time.	Time is not valid, please enter a valid time.
<Anything>	Empty("")	Between 0000 and 2359	Location is not valid. Please enter a valid location.	Location is not valid. Please enter a valid location.
<Anything>	Empty("")	Empty("") / Out of range	Location is not valid. Please enter a valid location.	Location is not valid. Please enter a valid location.

Test Case

Specific cases (Combination)

Type Event	Type Location	Event Time	Expected Results	Actual Results
Empty("")	<Anything>	Between 0000 and 2359	Name is not valid. Please enter the event name.	Name is not valid. Please enter the event name.
Empty("")	<Anything>	Empty("") / Out of range	Name is not valid. Please enter the event name.	Name is not valid. Please enter the event name.
Empty("")	Empty("")	Between 0000 and 2359	Name is not valid. Please enter the event name.	Name is not valid. Please enter the event name.
Empty("")	Empty("")	Empty("") / Out of range	Name is not valid. Please enter the event name.	Name is not valid. Please enter the event name.



06

Future Works

Future Works

1

Goal Setting

- Create a page for users to set goals
- Create a progress bar to track users' completion



2

Integrate with Smart Devices

- Fitbit (calorie tracker)
- Xiaomi smart shoes (step tracker)



3

Collaboration with External Parties

- Samsung Health
- Health Promotion Board Step Challenge





Thank you!

