Entity Entity	Interface
Responsibilities Set the entities ID Get the entities ID	Collaborators •

Entity GroceryList	Implements Entity
Responsibilities	<u>Collaborators</u>

Entity User	Implements Entity
Responsibilities	<u>Collaborators</u>

Entity GroceryItem	Implements Entity
Responsibilities Stores GroceryList IDs associated with the item Store User IDs associated with the item (for default items)	<u>Collaborators</u>

Use Case Interface

AuthAdapter

Responsibilities

- Receive raw data, performs some relevant data fetching operation, and returns a result
- The response will be of type Response
- Create a new user on receipt of username, password, and name
- Login an existing user on receipt of username and password

- ClassAuthAdapter
- UserSystem

Use Case

Implements AuthAdapter

ClassAuthAdapter

Responsibilities

- Receive raw data, performs some relevant data fetching operation, and returns a result
- The response will be of type Response
- Create a new user on receipt of username, password, and name
- Login an existing user on receipt of username and password
- Store User objects directly in EntityRepository
- Data fetched from EntityRepository will be available as Entity objects directly

- AuthAdapter
- EntityRepository

Use Case Interface

GroceryAdapter

Responsibilities

- Receive raw data, performs some relevant data fetching operation, and returns a result
- The response will be of type Response
- Specifies the following behaviour:
 - Get grocery lists by user
 - Get grocery list given list ID
 - Create a new grocery list with a name
 - Set grocery items for a list given its ID
 - Delete grocery lists

- ClassGroceryAdapter
- GroceryListSystem

Use Case

Implements GroceryAdapter

ClassGroceryAdapter

Responsibilities

- Receive raw data, performs some relevant data fetching operation, and returns a result
- The response will be of type Response
- This class stores, fetches, and otherwise manipulates entities as Java objects directly in the EntityRepository class.
- Implements all behaviours specified in GroceryAdapter

- GroceryAdapter
- EntityRepository

Controller

GroceryListSystem

Responsibilities

- Receive IO
 - Login → username, password
 - Logout → just method call (no parameters)
 - Create user → username, name, password
- With IO call use case methods with IO parameters
 - \circ Login \rightarrow get the user with given credentials
 - Create user → create a new user with given credentials
- Return use case data for UI to display
 - Login → return whether user was logged in
 - Logout → return whether user could be logged out
 - Create user → return whether user was created

- AuthAdapter
- Response
- Status

Controller

UserSystem

Responsibilities

- Receive IO
 - Create grocery list → name, user id
 - Create grocery item → name, list id
- With IO call use case methods with IO parameters
 - Create grocery list → create a new list with given name
 - Create grocery item → create a new item with given name
- Return use case data for UI to display
 - Create grocery list → return whether list was created
 - Create grocery item → return whether item was created

- AuthAdapter
- Response
- Status

Data Access

EntityRepository

Responsibilities

- Store all users, grocery lists, and grocery items
- Generate IDs when adding items
- Get grocery lists corresponding to users
- Get grocery items corresponding to a grocery list

Collaborators

ClassAuthAdapter

UI

UI

Responsibilities

- Take in user input
 - User login/logout
 - Creating grocery list
 - Adding item to grocery list
 - Sharing list
 - Adding friends
- Display data
 - Display grocery lists
 - Display grocery items in a specific list
- Navigate between functionalities

Collaborators

GroceryListSystem