Chen Caijie - Project Portfolio for The Food Diary

Overview

This portfolio showcases my contributions to a software engineering team project for our software engineering module. Our project, The Food Diary, is a food journal meant for tech-savvy food lovers looking to document their food adventures. You can get personalised recommendations, document your food adventures as well as organise the restaurants you have visited with categories so that you can easily filter them later.

My role was to implement the categorisation of restaurants as well as manage the git workflow of members. The following sections illustrate these enhancements and the relevant sections I added to the User and Developer Guide.

Note the following use of symbols and formatting in order to understand their meanings:

- This is a Note, indicating crucial information. Read it to understand why something works or does not work.

- This is a Tip, indicating nice-to-have information. Reading these will help you navigate the application better.

- A grey highlight indicates a command line instruction or specific functionalities of the application. e.g. `setCategories` , `Cuisine`
- A **bolded** word or phrase indicates important words that you should take note of.
- A phrase in *italics* indicates that it is either a Figure label or a reference to a Figure.

Summary of contributions

The following documents both the code enhancements and how I helped manage the project.

- **Major enhancement**: I implemented **Restaurant Categorisation** for the Food Diary
  - Feature Description: Allows the users to set specific categories to restaurants.
  - Feature Importance: Allows food lovers to better organise their food diary.
  - Feature Highlights:
    - One command that covers adding and editing categories. Categories are auto-capitalized.
    - Autocomplete suggestions for categories for faster typing.
- **Minor enhancement**: I added a filter command to display specific restaurants based on its categories
  - Feature Description: Allows food lovers to filter out restaurants based on categories.
  - Feature Importance: Helps food lovers locate and refer back to specific restaurants with specific categories set.
- **Code contributed**: The code I contributed can be viewed at the link here: Code Contributed
- **Other contributions**:
  - Project management:
    - Set up project repository
    - Managed merging of PR, issue tracking and handling of repository cleanups
  - Enhancements to existing features:
    - Refactored existing address book classes (PR #9)
  - Documentation:
    - Added user stories, use cases and Non-Functional Requirements (PR #22)
    - Added details on Categorisation implementation (PR #57, #88)
  - Community:
    - PRs reviewed (with non-trivial review comments): (PR #103)
    - Fixed tutor PR comments and added AboutUs links: (PR #76, #40)
    - Helped team members with git workflow
    - Contributed to the forum: (FORUM #62, #69)

Contributions to the User Guide

The following excerpt describes the contributions I made to the User Guide and shows my ability to document the Restaurant Categorization feature for end users.

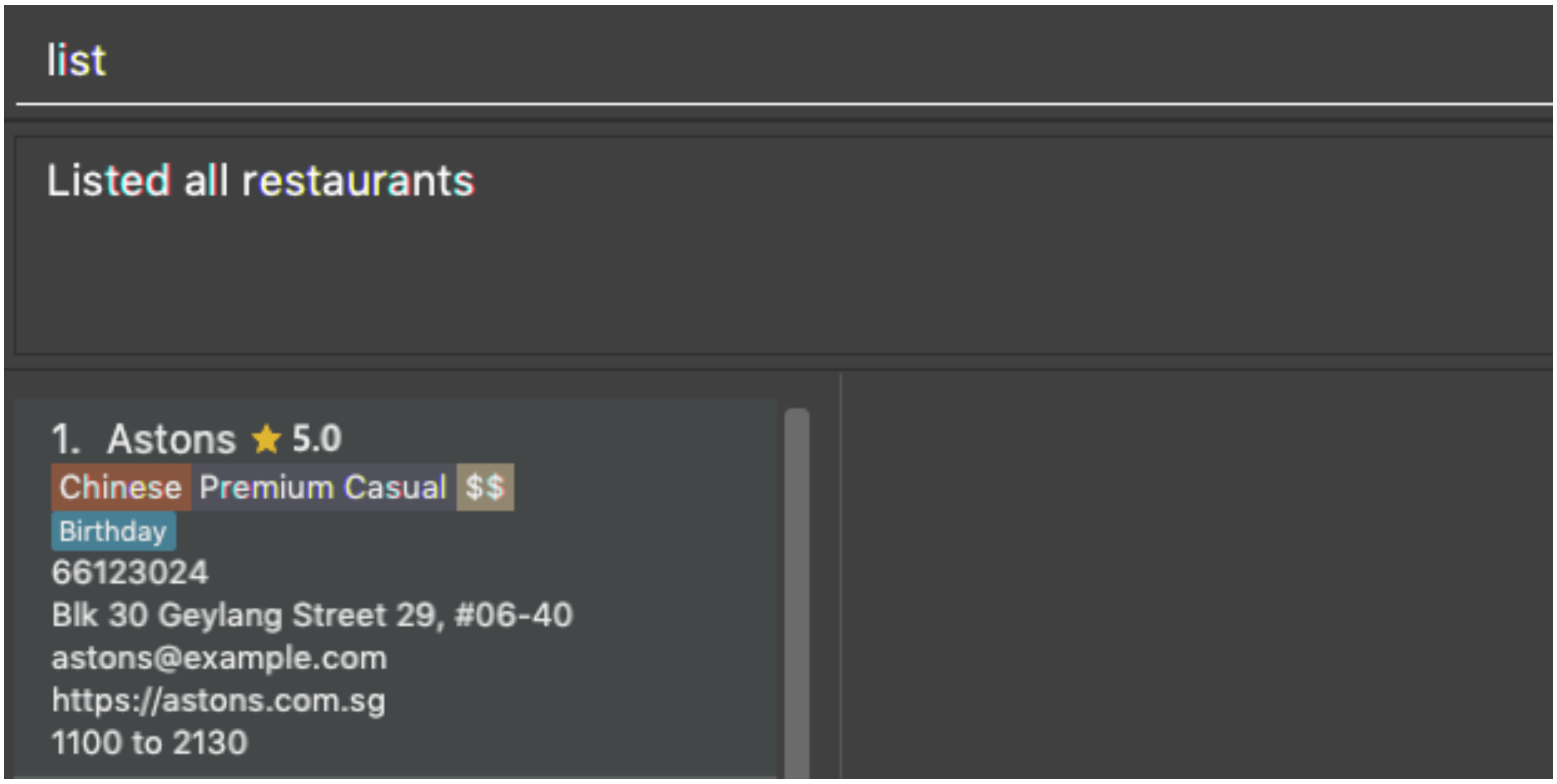
Setting the categories of a restaurant : `setCategories`

Sets the categories of a restaurant identified by the index number used in the list.
Format: `setCategories INDEX [c/CUISINE] [oc/OCCASION] [pr/PRICE_RANGE]`

- You can make use of the autocomplete suggestions to type faster!
- When a category's prefix (`c/`, `oc/` or `pr/`) is keyed in, suggestions will appear. Use arrow keys to select the desired suggestion and press enter. The suggestion will be filled automatically for you!

Step by step guide on how to set categories:

Step 1: List all the restaurants by typing `list`, then press enter, as shown *below*.



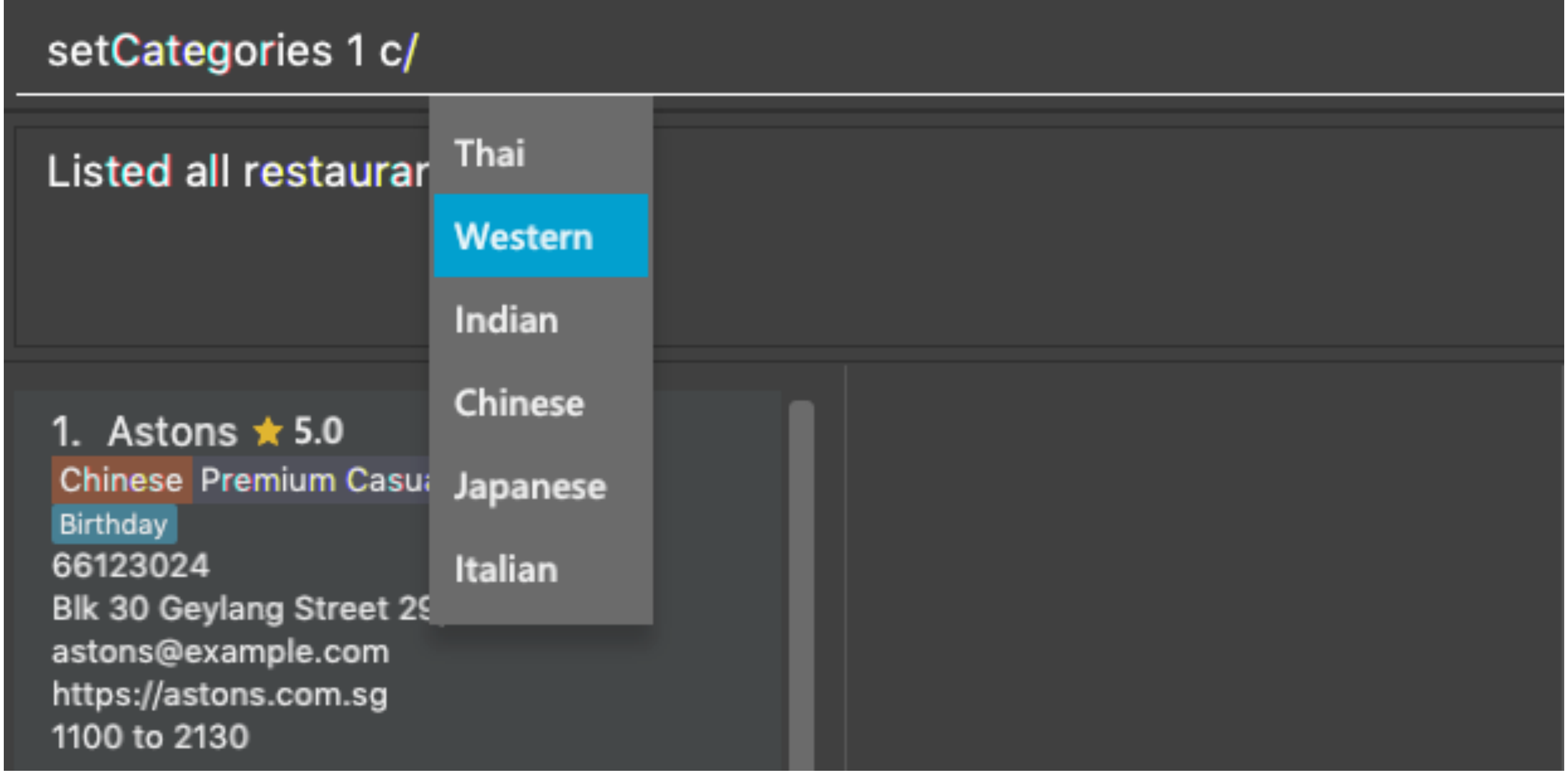
```
list

Listed all restaurants

1.  Astons ★ 5.0
Chinese Premium Casual $$
Birthday
66123024
Blk 30 Geylang Street 29, #06-40
astons@example.com
https://astons.com.sg
1100 to 2130
```

Figure 1: After typing `list`*. Oh no, the categories for Aston's are wrong! It is definitely not Chinese. Let's change it.*

Step 2: Choose a restaurant you want to set categories to. Let us choose Astons for this example. Take note that Astons is identified by **INDEX 1**. Start typing `setCategories 1 c/` as *follows*:

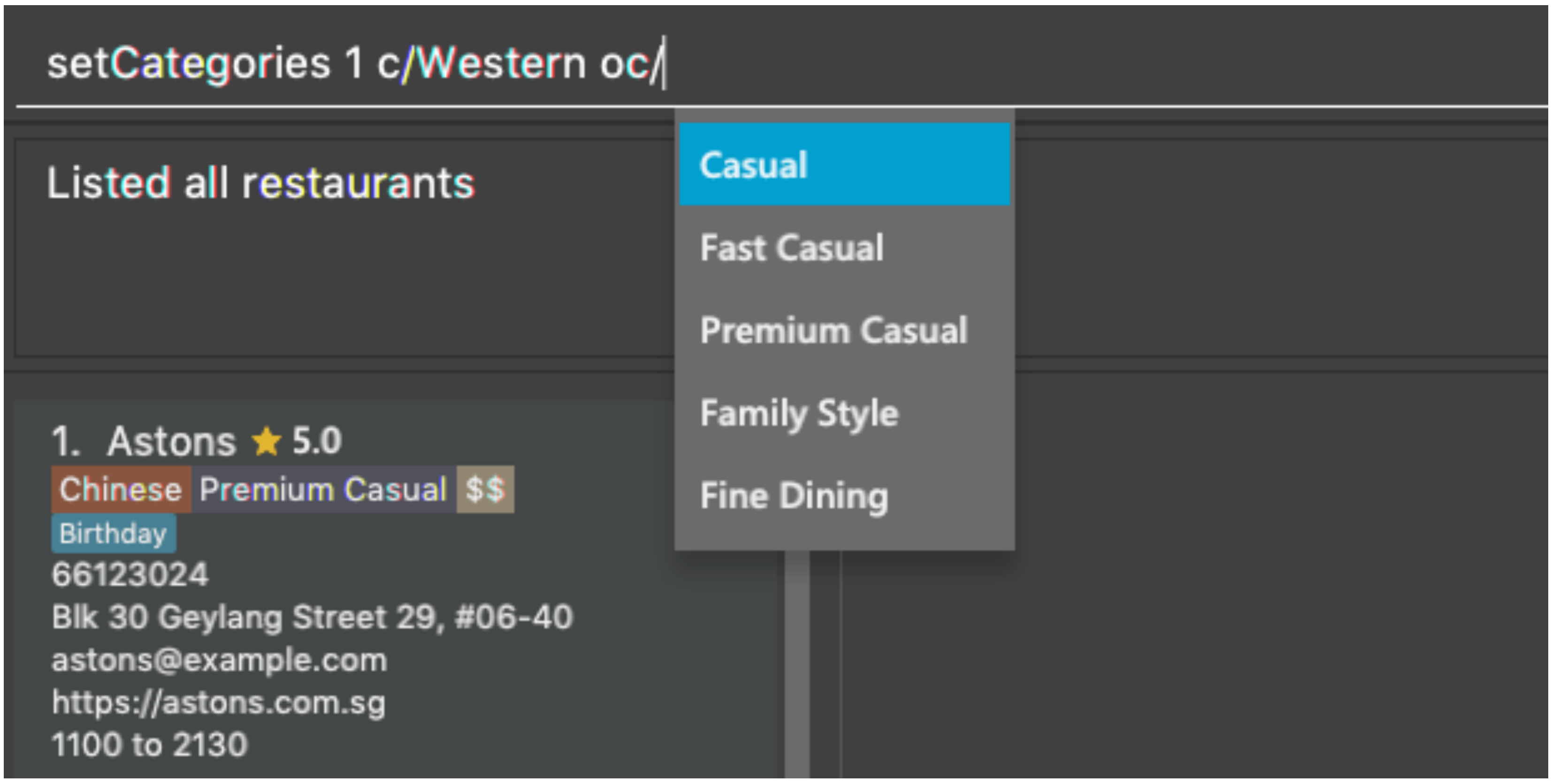

setCategories 1 c/

Listed all restaurar

1. Astons ★ 5.0
Chinese Premium Casu
Birthday
66123024
Blk 30 Geylang Street 29
astons@example.com
https://astons.com.sg
1100 to 2130

Figure 2: Notice suggestions for cuisines will pop up. Use arrow keys to select the desired suggestion and press enter, or you can also choose to continue typing something not in the suggestions.

Step 3: Continue keying in the occasion prefix after you finished keying in the cuisine. The occasion prefix is `oc/`. Follow Figure 3 shown *below*.

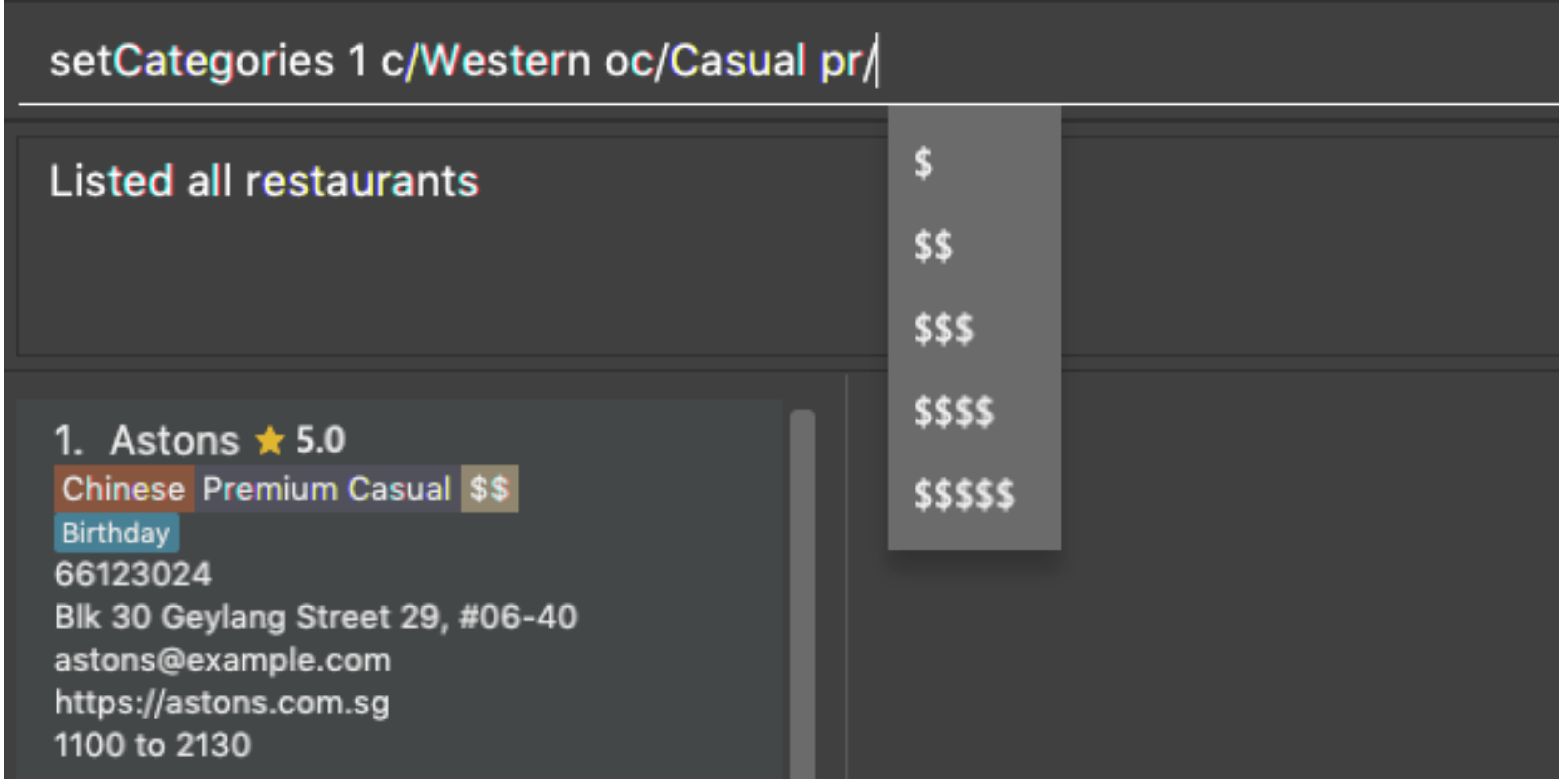

setCategories 1 c/Western oc/

Listed all restaurants

1. Astons ★ 5.0
Chinese Premium Casual $$
Birthday
66123024
Blk 30 Geylang Street 29, #06-40
astons@example.com
https://astons.com.sg
1100 to 2130

Figure 3: Once again, you can pick the occasion you see in the suggestions or continue typing.

Step 4: Key in the price range next, as demonstrated by *Figure 4 below*. The price range prefix is `pr/`.

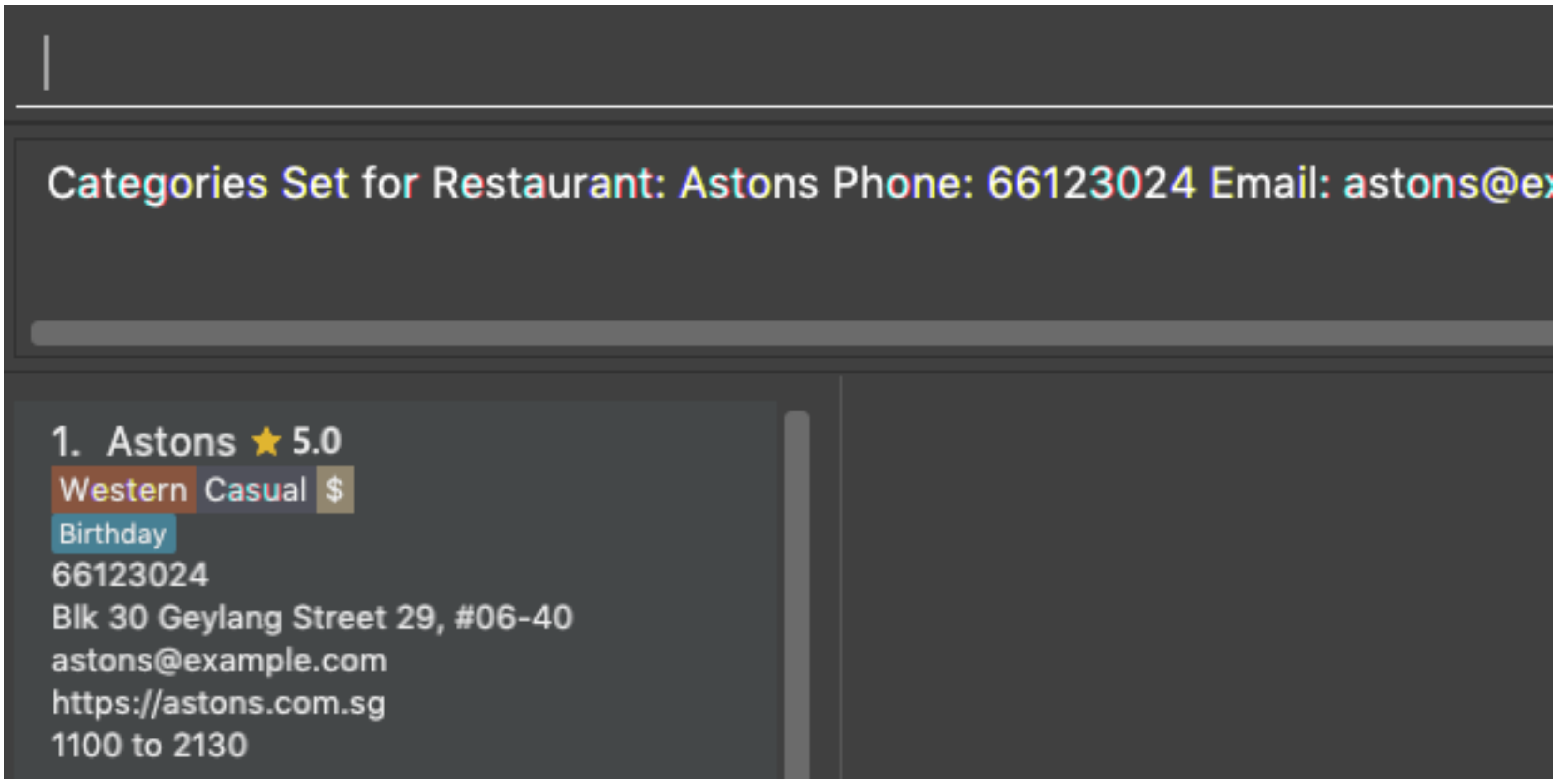

setCategories 1 c/Western oc/Casual pr/

Listed all restaurants

1. Astons ★ 5.0
Chinese Premium Casual $$
Birthday
66123024
Blk 30 Geylang Street 29, #06-40
astons@example.com
https://astons.com.sg
1100 to 2130

Figure 4: Pick a price range from the list or just type, whichever is faster for you.

Step 5: Press enter and the categories will be set! Else, you might have made a typo somewhere. You should see the following status message shown in the *Figure below*.


Categories Set for Restaurant: Astons Phone: 66123024 Email: astons@ex

1. Astons ★ 5.0
Western Casual $
Birthday
66123024
Blk 30 Geylang Street 29, #06-40
astons@example.com
https://astons.com.sg
1100 to 2130

Figure 5: Success!

- The index refers to the index number shown in the displayed restaurants list.
- You need to ensure that the index entered **must be a positive integer** `1, 2, 3, …`
- You need to ensure that the `Price Range` entered **must** only consist of 1-5 $ characters. e.g. `$`, `$$$`, `$`

- You need to ensure that `Cuisine` and `Occasion` **must** only contain alphanumeric characters and spaces.
- You do not need to worry about capitalization for `Cuisine` and `Occasion`. e.g. `fast food` will be capitalized to `Fast Food`.
- You can key in categories in any order. e.g. `Price Range` before `Cuisine`
- You can set any number of categories at once.

Other examples you can try:

- `setCategories 2 oc/Premium Casual pr/$`
  Sets the categories of the second restaurant in the list to `Premium Casual` for occasion and `$` for price range.
- `setCategories 3 c/Western`
  Only sets the cuisine of the third restaurant to `Western`.

Filtering restaurants based on category: `filter`

Filters and lists the restaurants with categories matching the keywords entered.
Format: `filter KEYWORD [MORE_KEYWORDS]`

Step by step guide on how to filter:

Step 1: Suppose you want to filter out all `Western`, `Japanese`, as well as `Chinese` restaurants. Type `filter western japanese chinese` into the command box.

Step 2: Press enter again and now all `Western`, `Japanese` and `Chinese` restaurants will be shown.

- You can enter keywords in any case. Filtering is case insensitive. e.g. `western` will match `Western`
- You can filter across categories and also within categories of the same type. e.g. `japanese $`, `japanese western`
- Keying in more keywords will make the filter more general, not specific.
- You can enter keywords in any order. `$ casual` is the same as `casual $`.
- You **must** enter words in full. e.g. `west` will not match `western`

> - Restaurants matching at least one keyword will be displayed. e.g. `fast food` will match `hawker food`

Some examples you can try:

- `filter fine dining casual` Displays restaurants with any category matching `fine`, `dining` or `casual`.
- `filter $ casual western` Displays restaurants with any category matching `$`, `casual` or `western`.

Contributions to the Developer Guide

> *For the Developer Guide, I documented how Categorization is implemented as shown below. It reflects my ability to articulate how I implemented my features*

Restaurant Categorisation

Restaurants can be classified using categories. Each restaurant can have each of the optional categories defined. Currently, 3 different types of categories are implemented in v1.4: `Cuisine`, `Occasion` and `Price Range`.

Current Implementation

Restaurant Categorisation is mainly implemented using the following commands:

- `setCategories` — sets the different categories of the restaurant using its respective prefixes.
- `filter` — filters out restaurants using keywords matching that of its categories.

All supported categories are defined in the `seedu.address.model.restaurant.categories` package. A Facade design pattern is used to allow access to individual `Cuisine`, `Occasion` and `PriceRange` categories through the `Categories` class.

Figure 1 below shows the chain of events when setting categories of a restaurant with the setCategories command:

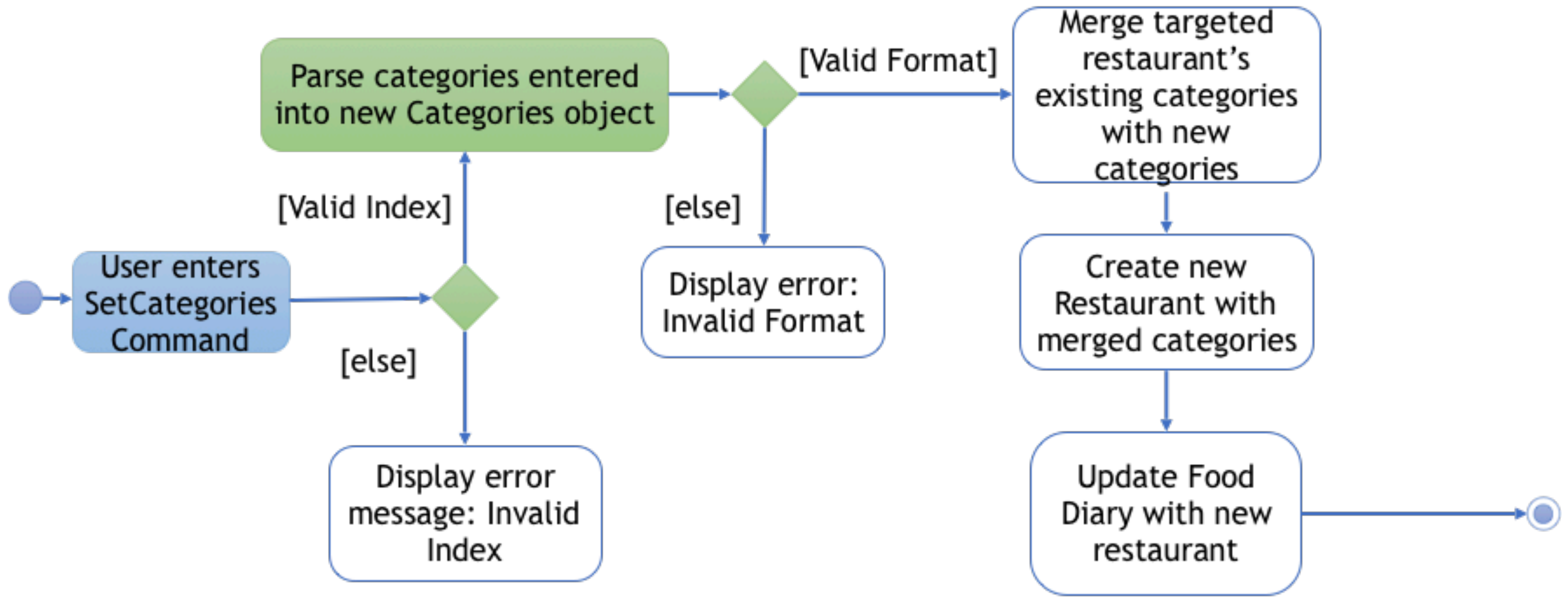

User enters SetCategories Command
[Valid Index]
[else]
Parse categories entered into new Categories object
Display error message: Invalid Index
[Valid Format]
[else]
Display error: Invalid Format
Merge targeted restaurant's existing categories with new categories
Create new Restaurant with merged categories
Update Food Diary with new restaurant

Figure 1: setCategories Activity Diagram

The following elaborates in detail on how the setCategories mechanism behaves at each step:

Step 1: User starts keying in the command into the command box. Once prefixes for either `Cuisine`, `Occasion` or `Price Range` are detected, suggestions for that Category type are retrieved by `CategoriesAutoCompleteTextField` and populated in the appearing context menu.

Step 2: User finishes typing and submits command for execution. The keyed-in text is sent to the `Food Diary Parser` to be parsed into a `SetCategoriesCommand` object. The `SetCategoriesCommand` object contains the categories parsed from the text encapsulated in a `Categories` object as well as the target `Index`.

Step 3: The `SetCategoriesCommand` is executed by calling `SetCategoriesCommand#execute()`. The target restaurant is retrieved from `Model` via `Model#getFilteredRestaurantList()`. The categories of the target restaurant are merged by calling `Categories#merge()` and the result is used to create a new restaurant, with all other restaurant data preserved. The new restaurant is then updated into the Food Diary via `Model#commitFoodDiary()`.

You can refer to *Figure 2* below to get a better understanding of how a typical valid setCategories command executes internally.

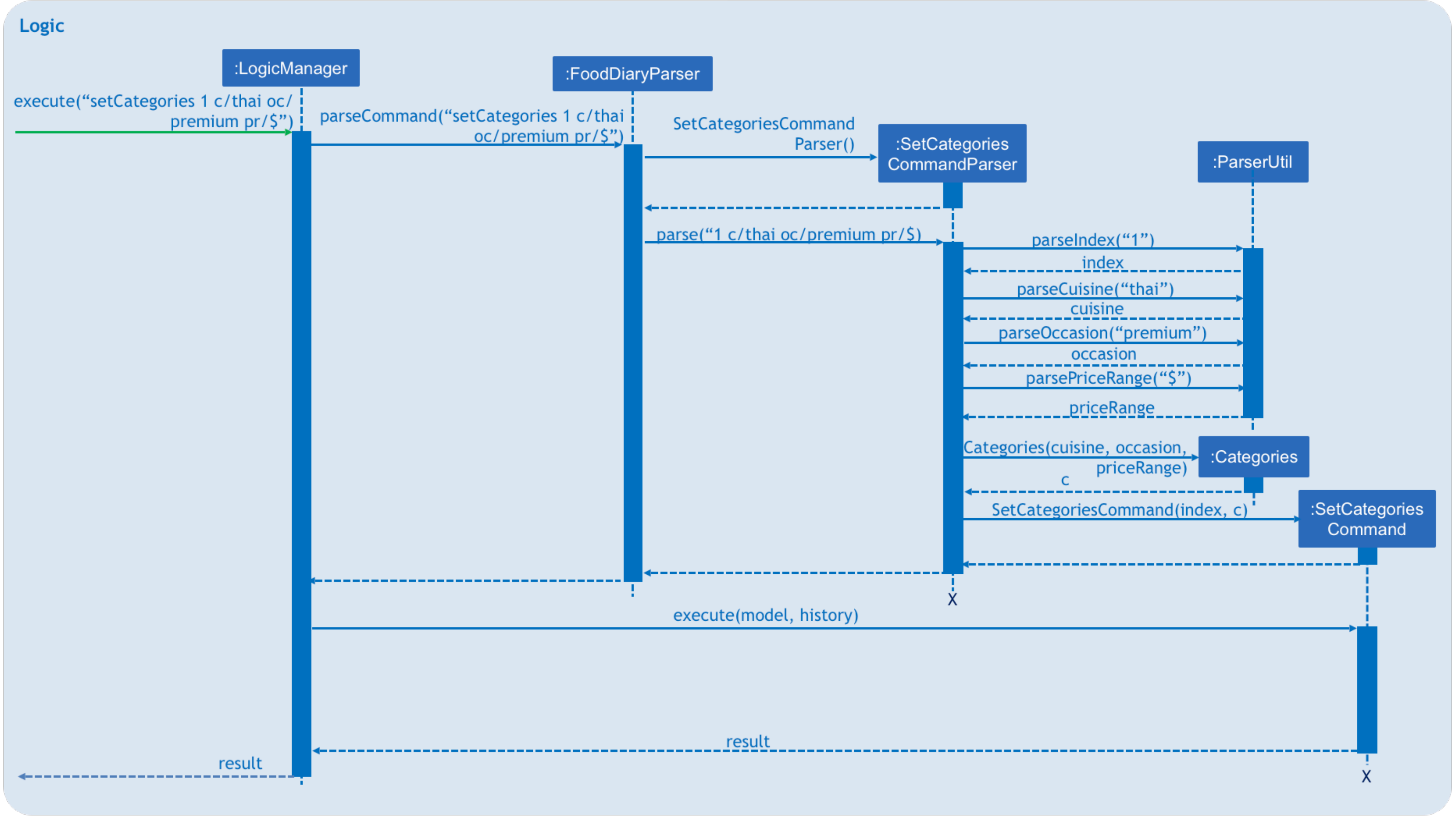

Logic
:LogicManager
:FoodDiaryParser
:SetCategories CommandParser
:ParserUtil
:Categories
:SetCategories Command
execute("setCategories 1 c/thai oc/ premium pr/$")
parseCommand("setCategories 1 c/thai oc/premium pr/$")
SetCategoriesCommand Parser()
parse("1 c/thai oc/premium pr/$)
parseIndex("1")
index
parseCuisine("thai")
cuisine
parseOccasion("premium")
occasion
parsePriceRange("$")
priceRange
Categories(cuisine, occasion, priceRange)
c
SetCategoriesCommand(index, c)
execute(model, history)
result
result

Figure 2: setCategories Sequence Diagram

Design Considerations

You can find out more about why certain areas of the feature are implemented a certain way here. Other possible alternatives are also considered and reasons as to why they were not chosen are also explained here.

How a restaurant's Price Range is categorised

This section discusses the different ways price ranges could have been categorised.

- Alternative 1: Use dollar signs to represent price (Current implementation)

Pros	It is easier for the user to type and also visually clearer to the viewer
Cons	Restricts the range of price between one and five

- Alternative 2: Use words such as `cheap`, `expensive` to represent price range

Pros	User has complete freedom as to how they want to key in the price range

Cons	Lacks proper structure, not very intuitive to the viewer if the user keys in something that does not make sense

I chose Alternative 1 because it offers a better user experience. Users just need to type in a few characters. It also ensures that all restaurants' price ranges are visually consistent.

How categories are added and edited

This section discusses how categories could have been handled.

- Alternative 1: Use one single command to add and edit, only overriding the present categories keyed in (Current implementation)

Pros	User does not need to remember multiple commands to set categories.
Cons	Users are restricted to the preset types of categories they can set.

- Alternative 2: Use separate commands for add and edit

Pros	User can add their own types of categories.
Cons	User needs to remember which restaurants do not have categories added yet, else add or edit commands might fail.

I chose Alternative 1 because there are not many categories a restaurant can have. By having one command to set any category, users only need to remember one command, hence it is more intuitive for the user.

Last updated 2019-04-15 18:55:23 SRET