

Group Development Plan

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Iterations

1. Loading

Creation of these classes: Item, Order, ItemCollection, OrderCollection, FileInput, ItemLoader, OrderLoader, Manager (limited functionality), print to output.

Unit tests for each class will be created here as we will use test driven development in this iteration.

2. Report Generation

Add further functionality to Manager class by adding ability to output report and add items and orders. Extend OrderCollection and ItemCollection classes to include methods to get frequency etc.

3. GUI1

Creation of CafeGUI class, ability to add items to orders and add to OrdersCollection, view total price of order, generated report includes added items.

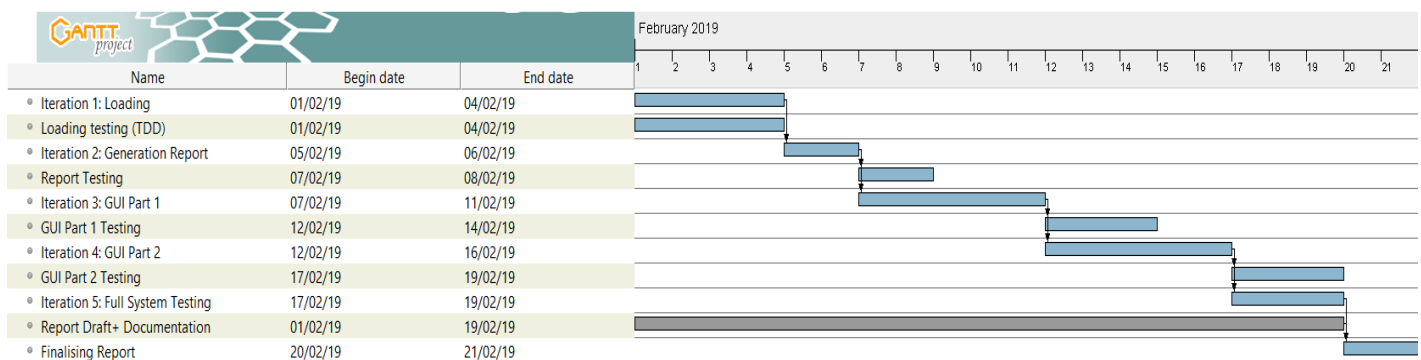
4. GUI2

Addition of discount item type, addition of DiscountCalculator class, method to find best discounts, ability to have multiple discounts combined.

5. Full system testing

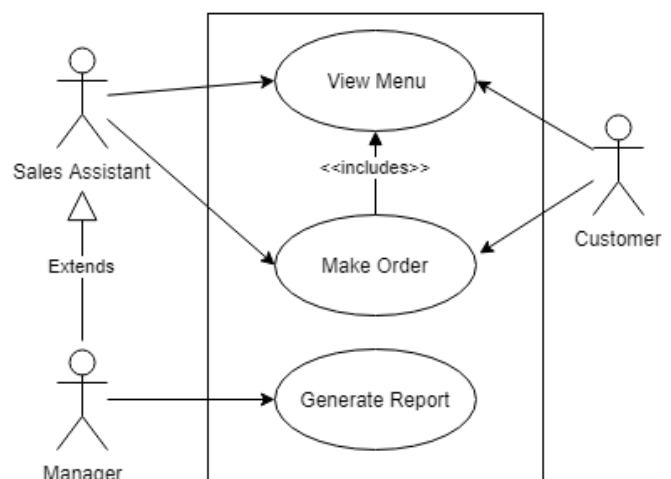
Testing all system classes where appropriate and comparing to expected outcomes.

Gantt Chart



Use Case Diagram

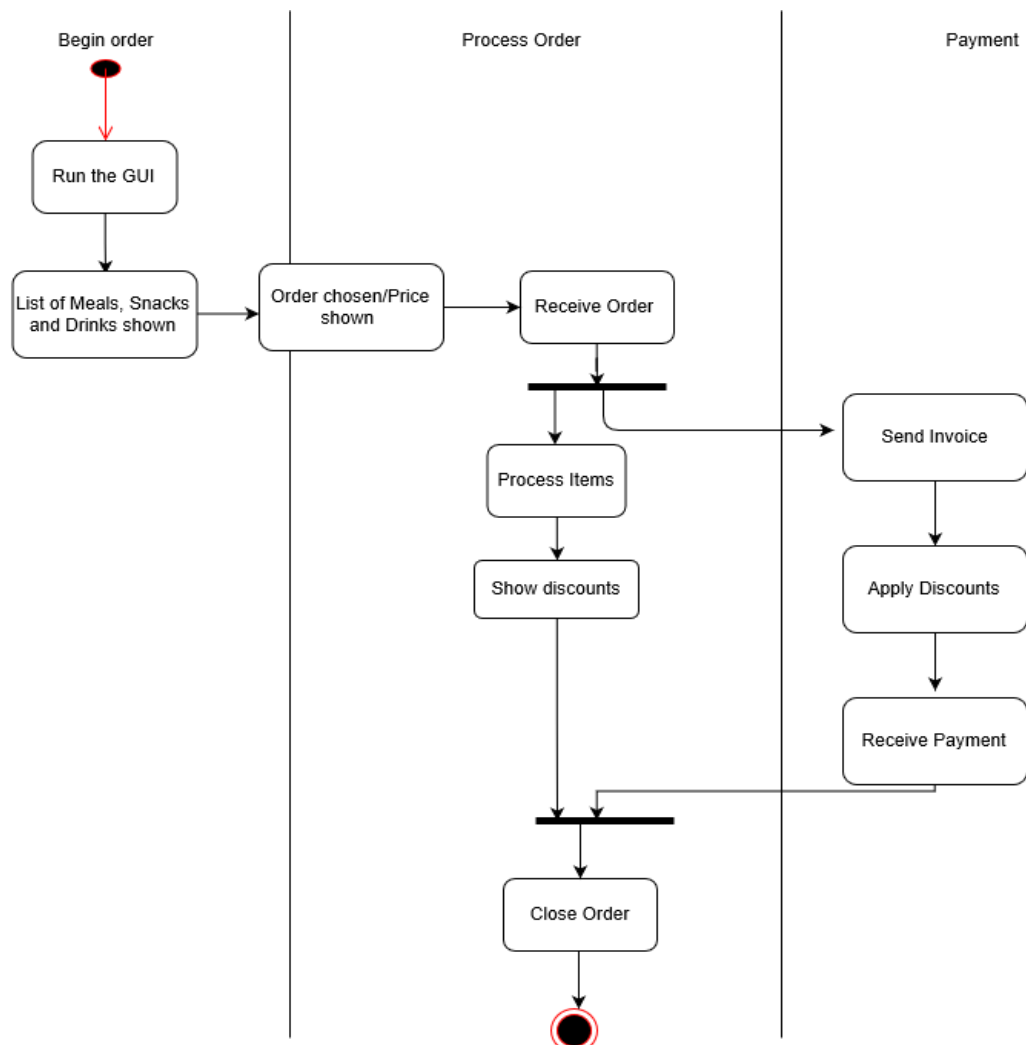
Use Case:	View Menu
Goals:	View available items and prices
Actors:	Sales Assistant, Customer
Pre-conditions	Café is open
Main success scenario	
1.	View list of available items
2.	Select one or more item
3.	Total price is shown
4.	Available discounts are shown
Exceptions	
1a.	No item data to display
1.	Menu is blank
4a.	Order does not qualify for any discounts
1.	Discount is displayed as zero
Post Conditions	
Sub use cases	



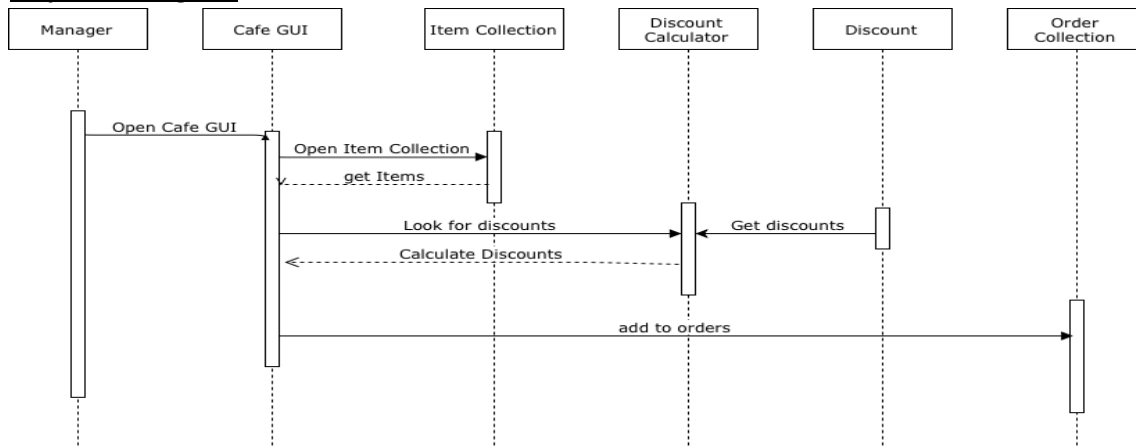
Use Case:	Make an order
Goals:	To create an order for one or more items
Actors:	Sales assistant, Customer
Pre-conditions	Café is open
Main success scenario	
1. List items browsed (sub use case)	
2. One or more item is selected to order	
3. Total price is shown	
4. Available discounts are shown	
5. Order is submitted	
6. Discount is applied	
7. Order is added to list of orders	
Exceptions	
5a. No items are selected	
1. Order is not submitted	
2. Prompt user to enter at least one item then continue from 2	
6a. Order does not qualify for any discounts	
1. Continue from 6	
7a. Order can not be added to list of orders	
1. User is informed order has not been added	
2. Continue from 1	
Post Conditions	
Ordered items have been added to list of orders	
Sub use cases	
Includes view menu	

Use Case:	Generate Report
Goals:	Output order details to a report
Actors:	Manager
Pre-conditions	Café is open
Main success scenario	
1. Run program	
2. Close program	
3. Data is converted to report format and saved	
Exceptions	
2a. Program is in use	
1. Wait for program to be not in use then continue from 2	
3a. Report cannot be generated	
1. User is informed of error and nothing is saved	
3b. No data to create report from	
1. User is informed that data is required and nothing is saved	
3c. Report cannot be saved	
1. User is informed and nothing is saved	
Post Conditions	
Report has been created	
Sub use cases	

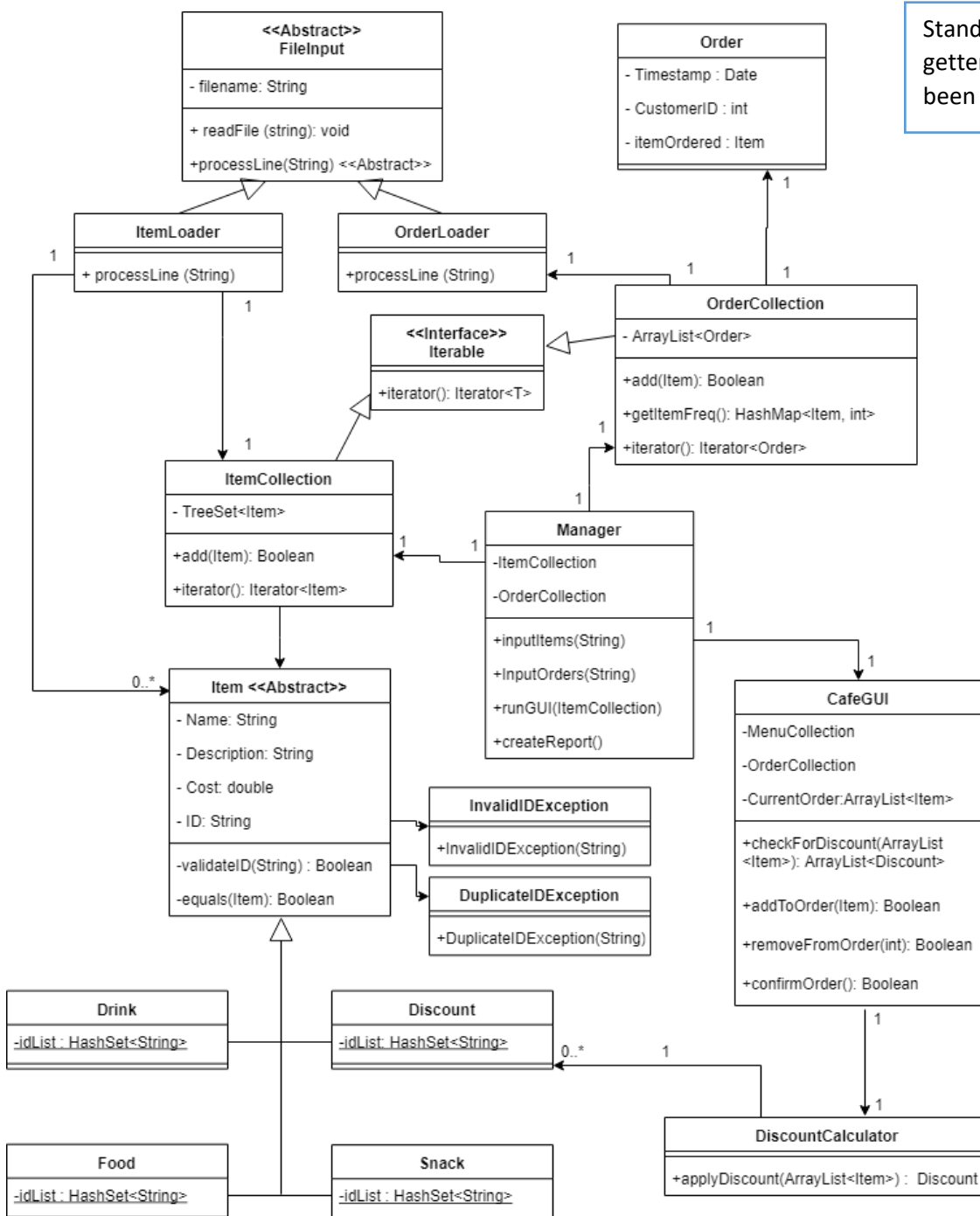
Activity Diagram



Sequence Diagram



Class Diagram



Standard Constructors and getters and setters have been omitted

Chosen Collections

OrderCollection = ArrayList
-> easy to add elements, kept in order of addition

ItemCollection = TreeSet
-> ordered, no duplicates

idList(Drink, Food, Snack) = HashSet

-> no duplicate ids allowed

CurrentOrder = ArrayList

-> easy to add items to order after selection