## Group Development plan

### Project Plan

This includes our goals in terms of time in each stage and part of the coursework to be done.



### CRC cards

Information about our classes, responsibilities and collaborators.

### Data structure

**Basket** – linked list. The basket is going to store the elements the customer has selected to order. It will be stored as a linked list because we are going to be adding/removing elements frequently.

**Item list** – The item list is going to be storing the items the coffee shop has on sale. It will be stored in a tree set because the list will be searched through often, we want to display the items in order and we don´t want duplicated of the type items we have on sale.

**Discounts** – map. The Discount list will store all the combinations of items which are on discount. It will be stored in a map, because each combination of elements need to have an unique key, we want to easily store combinations and don´t want duplicate discounts.

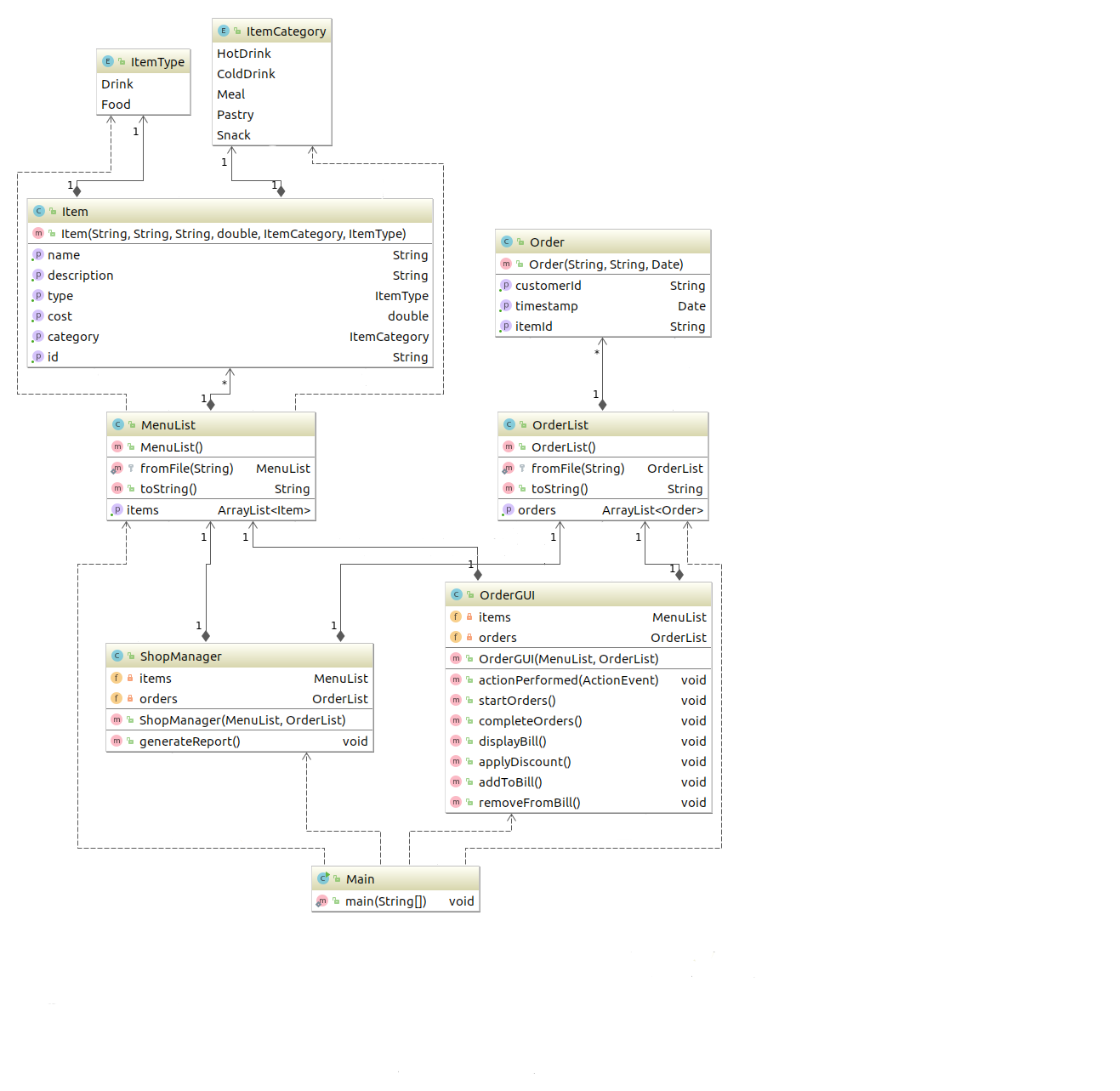
### UML

First draft of the relationships and dependencies between our classes. In the next step of our work we will evaluate and possible update it (add/delete methods, classes, etc.).

Description of colours:

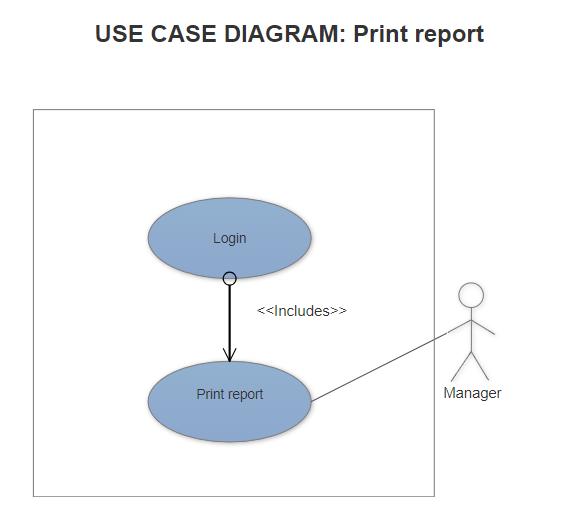
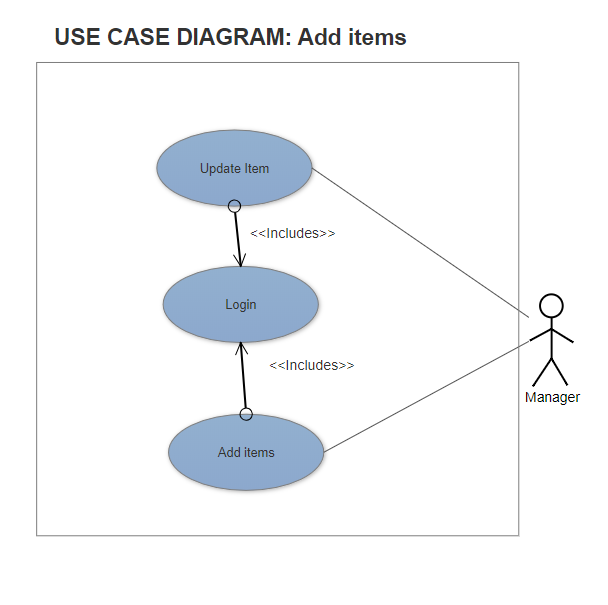
 CLASSES ENUMERATIONS  METHODS

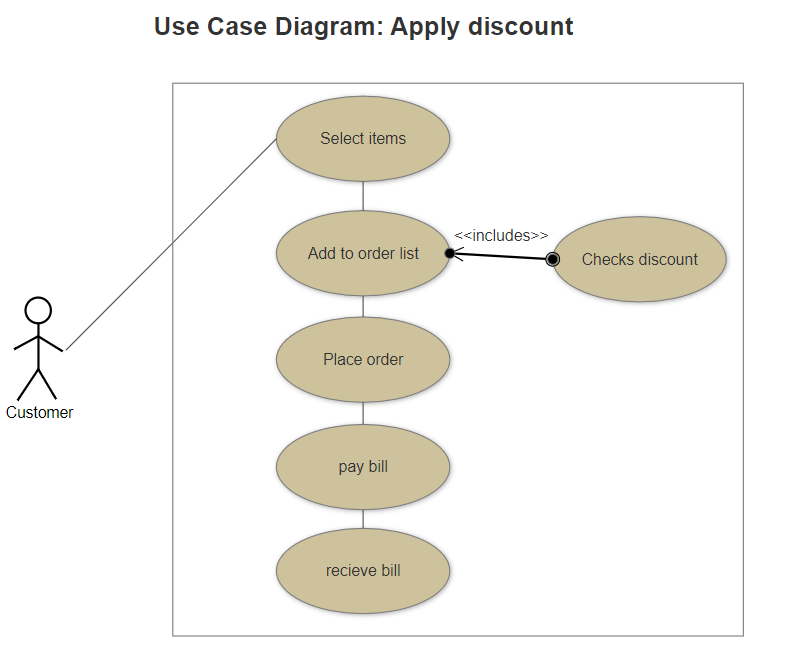
PROPERTIES  FILES  CONSTRUCTOR



### Use Case Diagrams

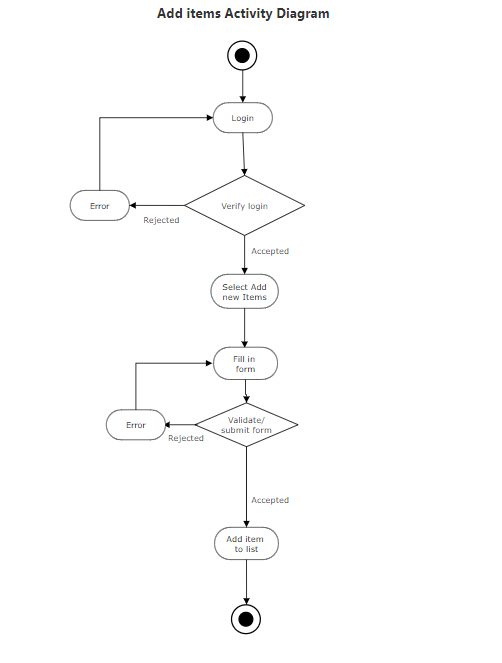
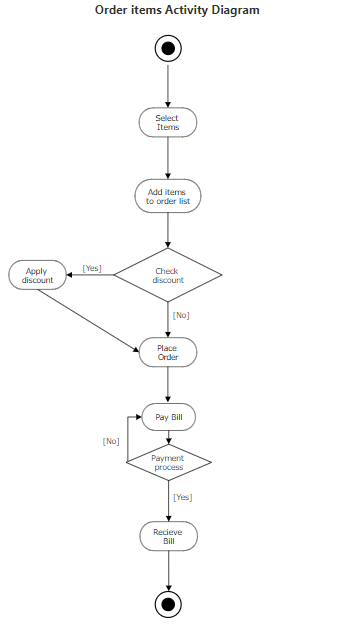
Description of the possible interaction with the system that the different actuators will have in our Programme.

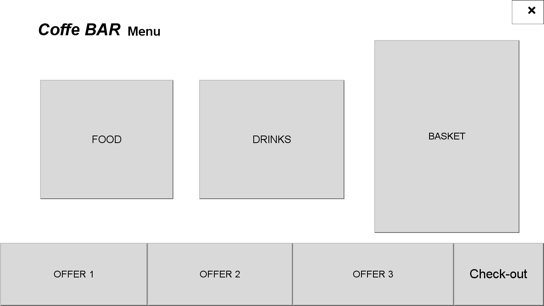
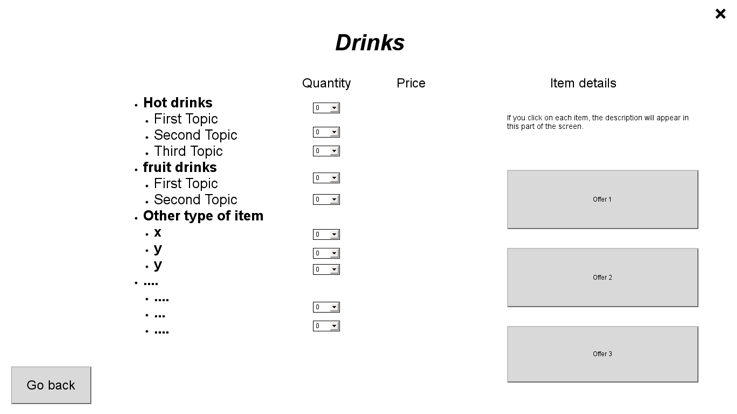


### Activity diagrams

Showing the workflow and how software and human activities interact.

GUI

First draft of our possible GUI. We just show 2 first screens:

1. Main screen: options to select food or drinks, the offers listed, the basket and check out bottoms and
2. Drinks screen (example): with the list of drinks and selection bottoms for number and information, also offers appear here).

### Methodology

The program will be developed using planned iterative development, meaning that we'll design all aspects of the program before writing code. The class design of the program will be made by making use of CRC cards and class diagrams, shown above. At this stage of the development we will also be designing the GUI of the program. The full functionality of the program will first be written out in a design document before moving on to the next stage of development. Once the design of the program is finalized we will move on to actually programming the code.