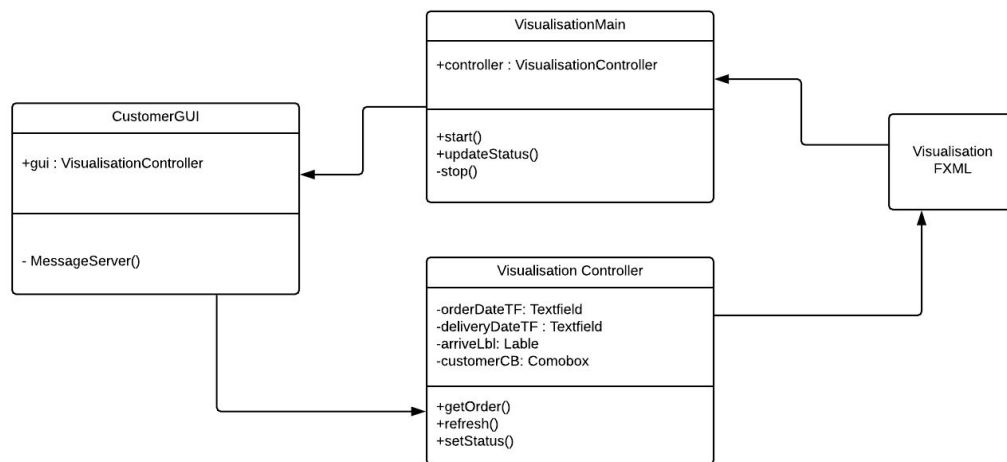# Visualisation Agent

Overview

The project simulates the interaction between customers and bakeries. The scenario file is given in the config folder which includes customer names, order id, time of order, and product list. Each customer gets the list of orders that belong to them and send the order at a specific time. The project is a part of the bigger project (class project) and it only manages the communication exchange between customers and order processing dummy. The order processing is supposed to be the part of bakeries that is responsible by taking orders and distributing it to other part of bakeries. However, here, the order processing dummy will only take order and reply it with the price of the each product.

Architecture:

Working:

Visualisation agent:

This agent receives the status of the order from the customer agent and further breaks down the JSON message to string which then sent to Visualisation Main to make changes to the graphical interface accordingly.

Visualisation Main:

It is simply used for loading of fxml file and acts as medium of communication between the controller and the agent to send the data required for changing the values in fxml.
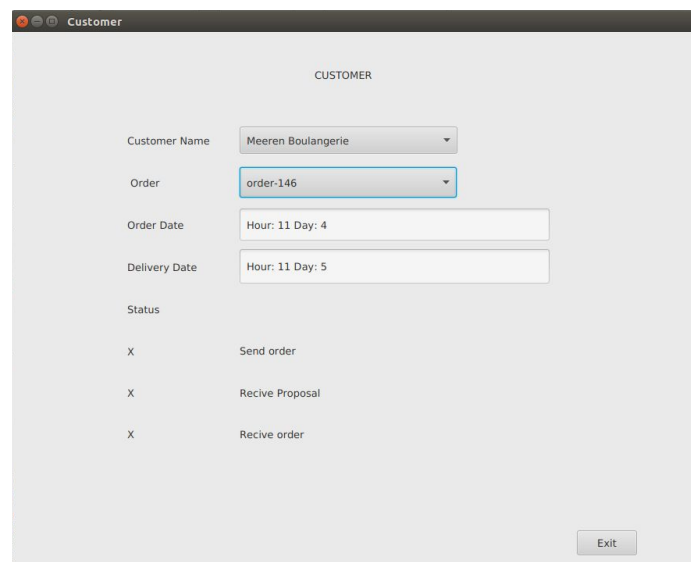
Visualisation Controller:

It is class used for making changes to each component of the fxml. It is used for initialising the values of combobox to all the customer names and further according to the choice of the customer it initializes values of the order ids.Through these order ids the order and delivery dates are obtained and the text value field is set. Also the status of each of the order ids is obtained and the values for the labels "SENT ORDER", "RECEIVED ORDER" and "RECEIVED PROPOSAL" is set.

FXML:
- It is the basic layout of the graphical interface wherein we have two combo boxes for customer name and order ids respectively which allows the user to select particular customer and one of the orders by them so as to check the status of the particular order sent by the customer.
- There are two text field which display the order date and delivery date respectively.
- There are three labels for the status ("SENT ORDER", "RECEIVED ORDER" and "RECEIVED PROPOSAL")which show "X" value if the task is not done and "O" if the task is done.
- This can be seen it the figure shown below.

GUI WINDOW

INPUT
- Receive status of the order
  - **Performative**: INFORM
  - **Sender**: customer agent
  - **Receiver**: customer gui
  - **Content**: - {customer_name:"Sunspear Bakery"
         Order_id: `order-002`
         Status:{`SEND_ORDER,`
              `RECEIVE_PROPOSAL,`
              `RECEIVE_ORDER`}
         }

OUTPUT
- List of customer name
- List of orderid
- List of order and delivery dates
- Status of order

INTERFACE
- Combo box - Customer Name: To select from the list of customers from senario file
- Combo box -Order Id: To select the orders by particular customer
- Button - Exit to close the gui

STEPS TO RUN
Following are the steps to view the order status using our gui

- Select the customer name of the one you want to view the status
- Select the order id
- If you find 'O' in your status label that means particular task has been completed otherwise not
- To exit the you can press the Exit button present

FUTURE IMPROVEMENTS

- Can add status of each stages like baking or packaging by getting message from these agents about their status .Currently we only do it for customer as we implement only this stage .