Project Report Part-1:

Project Title: Restaurant Management System

Course Title: Software Quality Assurance
Course Code: CSE435
Semester: SUMMER’21

SUBMITTED TO,

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(a)**Project Title:** Restaurant Management System.

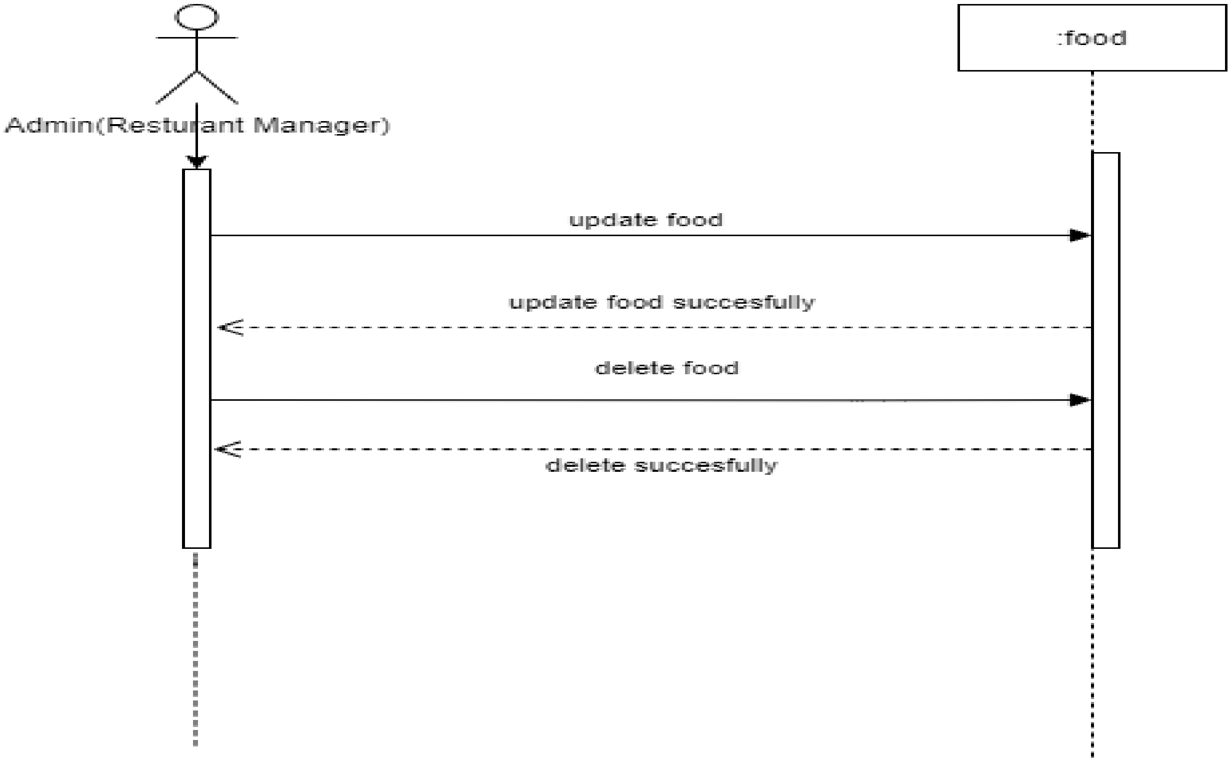
(b) Project Overview:

This is a restaurant Management System website project. From this project, the stakeholders (Internal stakeholder: project team, restaurant manager and External stakeholder: customer) will be benefited in real life. In this report, how customers and admin can use website interface to create account, see menu, place order, reserve time slot in restaurant through online and admin can see the information of users, customized menu is explained in detail.

In this project, restaurant management can easily do their work, have less work load and save their time. Also, customers can simply order food and reserve time slot for a table in advance from home. So that, customers do not have to wait in restaurant. From the homepage, both customers and admin can access the website. Customer can create account or login if he has account previously. After login customer will be re-directed to welcome page from where customer can see a menu, choose food and order as much quantity needed, and after confirming they can see what they have ordered. Also, customer can book an available or multiple time slot from the reservation calendar in advance and see their reservation information. No customer can book an already reserved time slot. Admin can login from the homepage, he can add new food item, update or delete any food item information from the menu, see all customers information, all information of the orders placed in the website and all information of the reservations placed in the website.

(c) Sequence Diagram:

For Update & Delete:

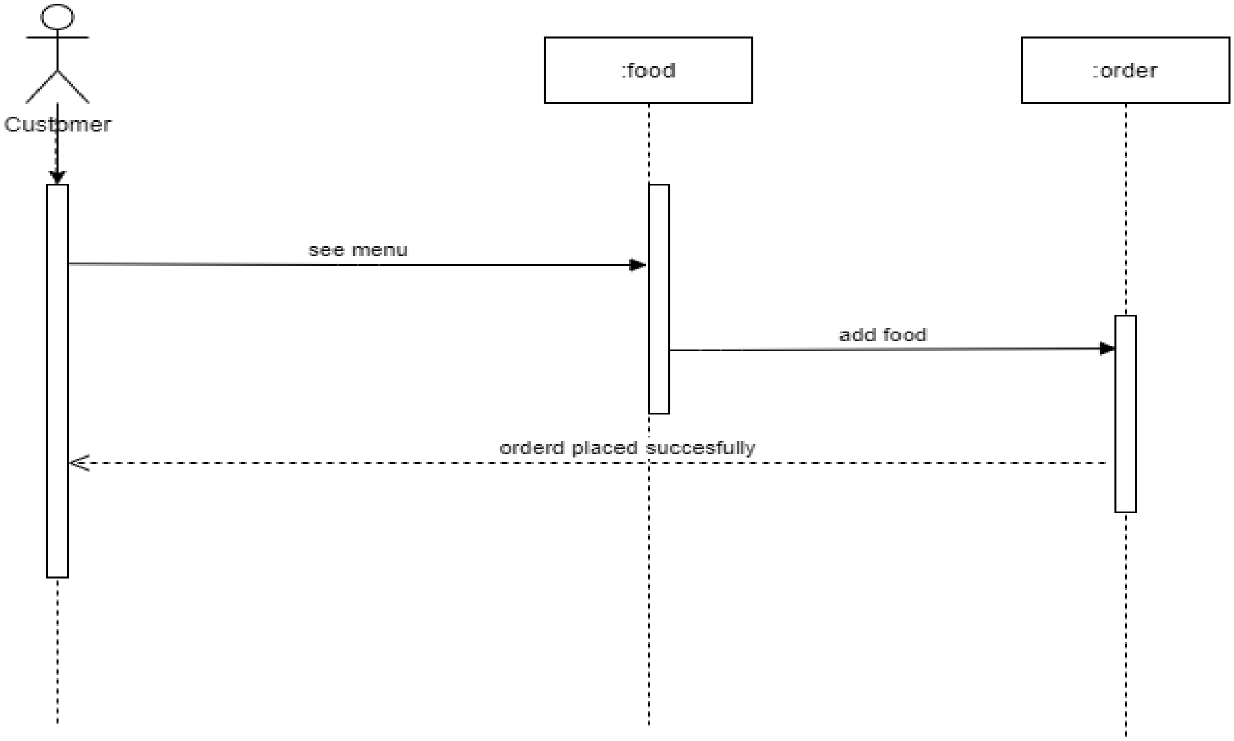


In Update & Delete Sequence Diagram, there are two state-**Admin** & **Food**.

For Update food, there will be a request sent from admin to food, that is “**update food**”.
After Updating food, it will send a reply message “**update food successfully**” to admin.

For Delete food, there will be request sent admin to food, that is “**delete food**”.
After Deleting, it will send a reply message “**delete successfully**” to admin.

<u>For Order Place</u>:

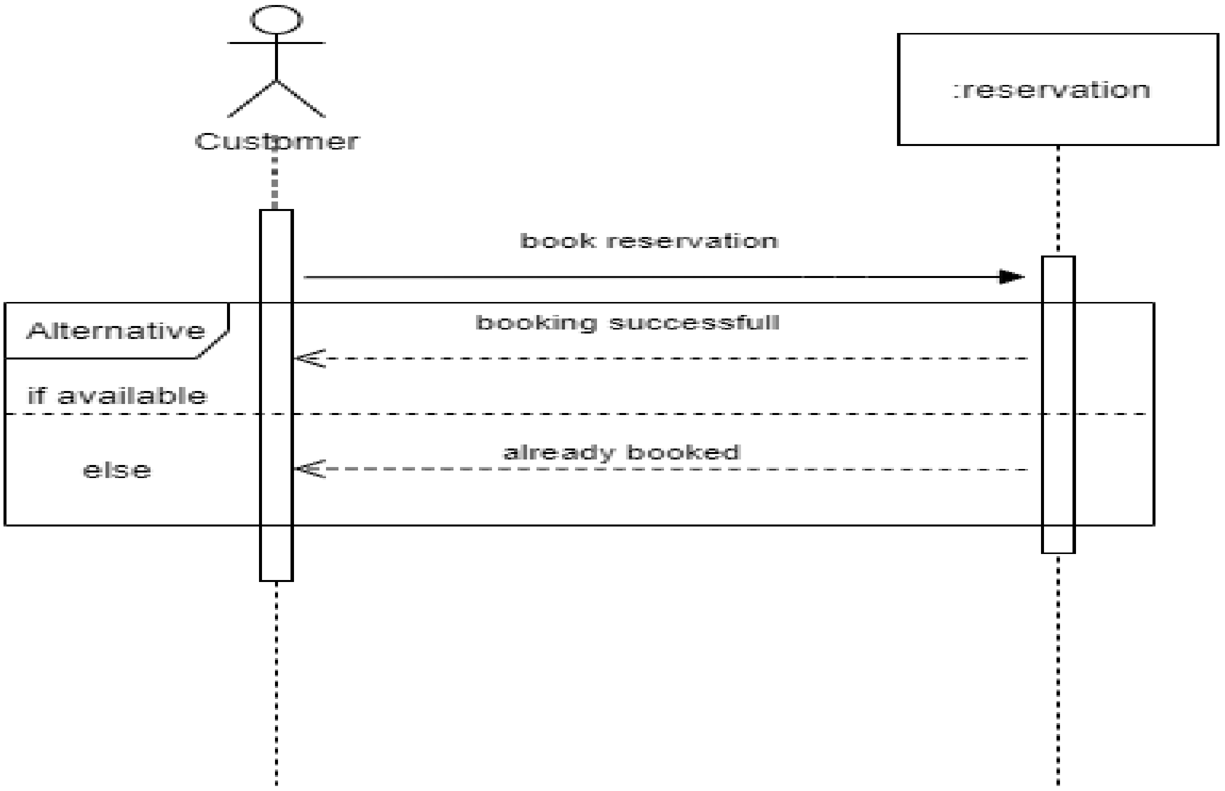


In Order place Sequence Diagram, there are three state-**Customer, Food** & **Order**.

For seeing the food menu, there will be a request sent from customer to food, that is "**see menu**". After seeing the food menu, customer will be sent a request from food to order, that is "**add food**".

After adding food, it will send a reply message, that is "**order placed successfully**" to customer.

For Reservation:

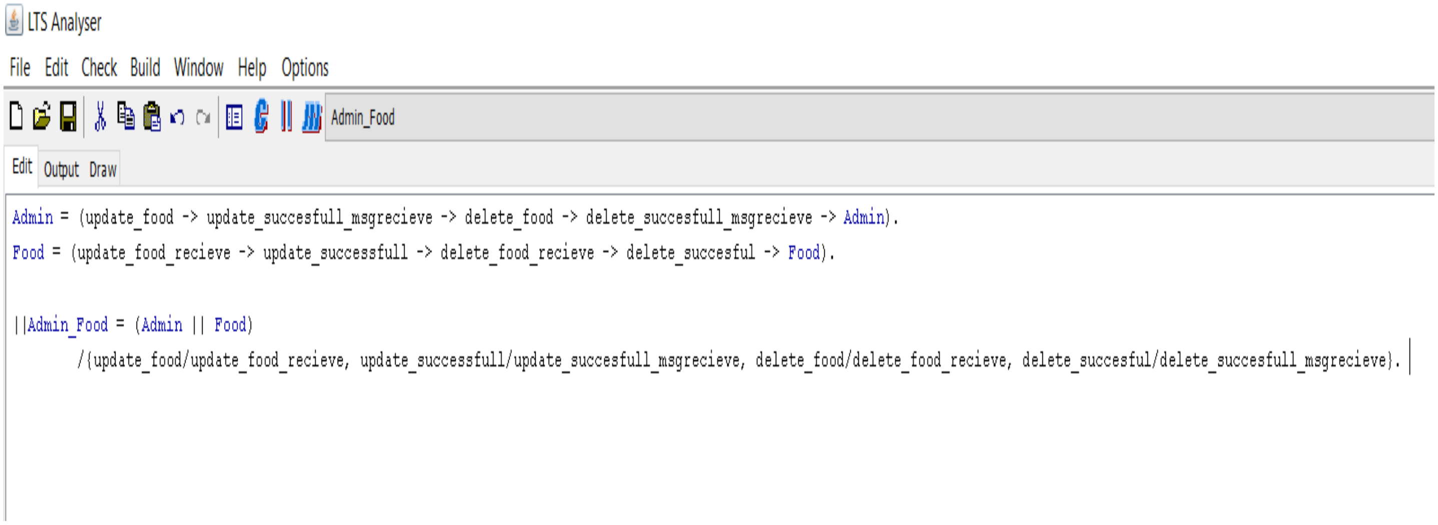


In Reservation Sequence Diagram, there are two state-**Customer** & **Reservation**.

For Reservation, there will be a request sent from customer to reservation, that is “**book reservation**”.
After reservation request,
If available, then it will send a reply message “**booking successfull**” to customer.
If there are no seat available, then it will send a reply message “**already booked**” to customer.

(d) FSP notations:

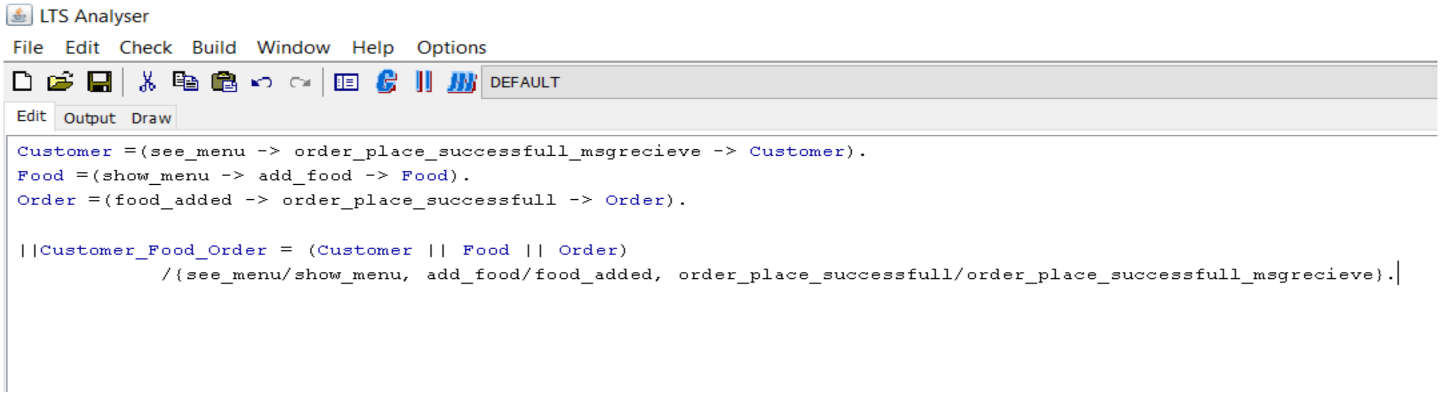
<u>For Update & Delete</u>:



```
Admin = (update_food -> update_succesfull_msgrecieve -> delete_food -> delete_succesfull_msgrecieve -> Admin).
Food = (update_food_recieve -> update_successfull -> delete_food_recieve -> delete_succesful -> Food).

||Admin_Food = (Admin || Food)
        /{update_food/update_food_recieve, update_successfull/update_succesfull_msgrecieve, delete_food/delete_food_recieve, delete_succesful/delete_succesfull_msgrecieve}.
```

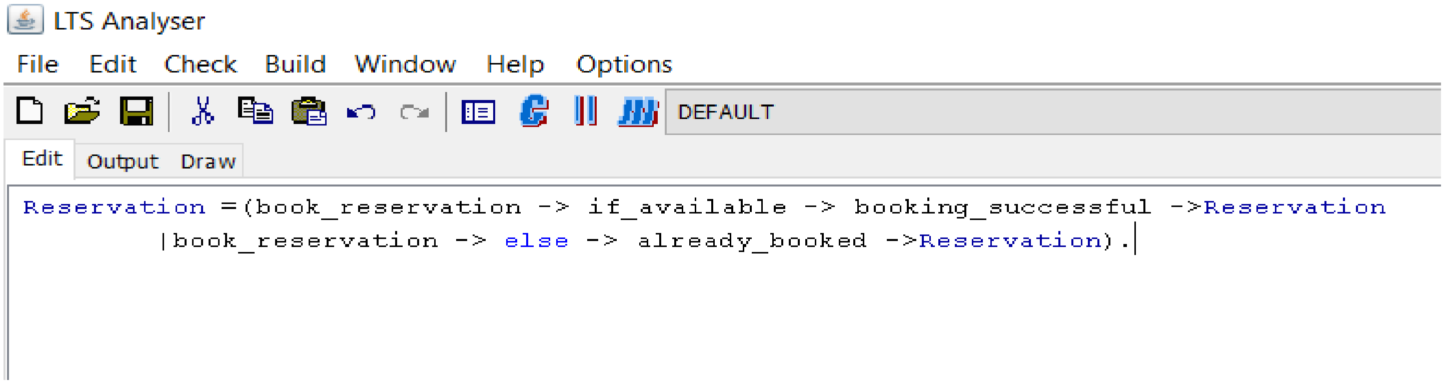
<u>For Order place</u>:



```
Customer =(see_menu -> order_place_successfull_msgrecieve -> Customer).
Food =(show_menu -> add_food -> Food).
Order =(food_added -> order_place_successfull -> Order).

||Customer_Food_Order = (Customer || Food || Order)
           /{see_menu/show_menu, add_food/food_added, order_place_successfull/order_place_successfull_msgrecieve}.
```

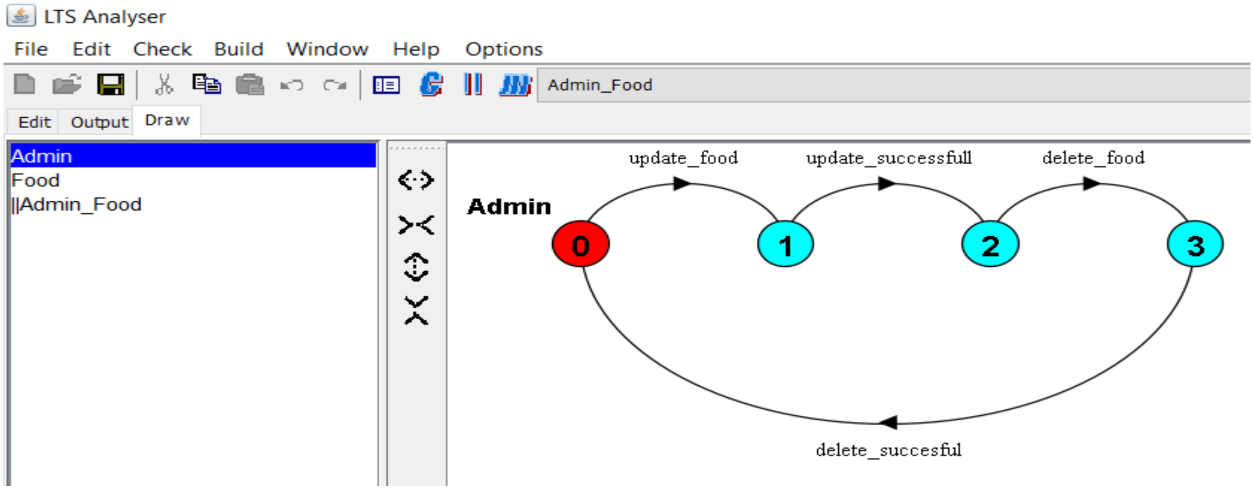
<u>For Reservation</u>:

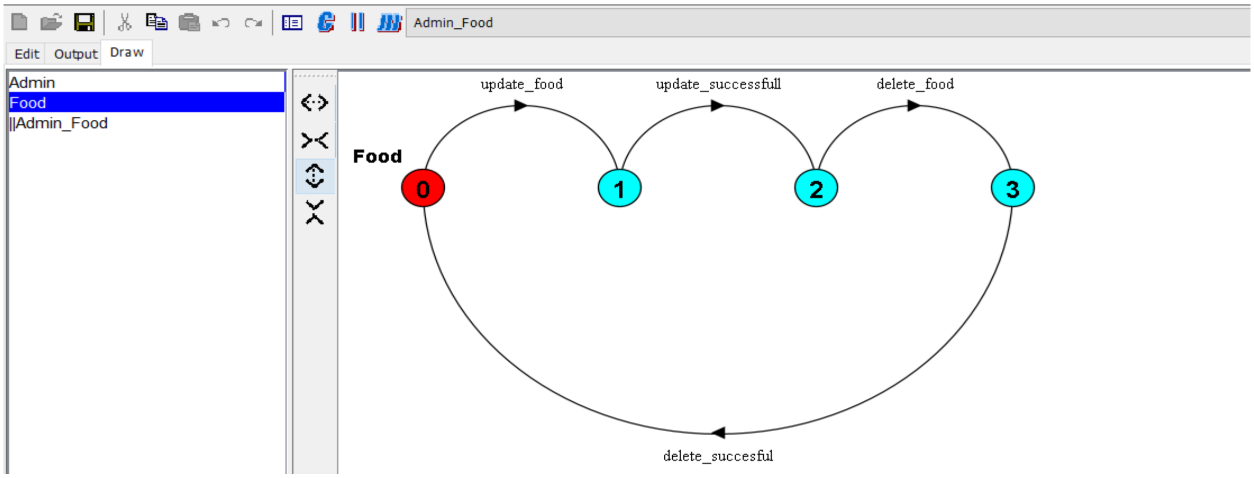


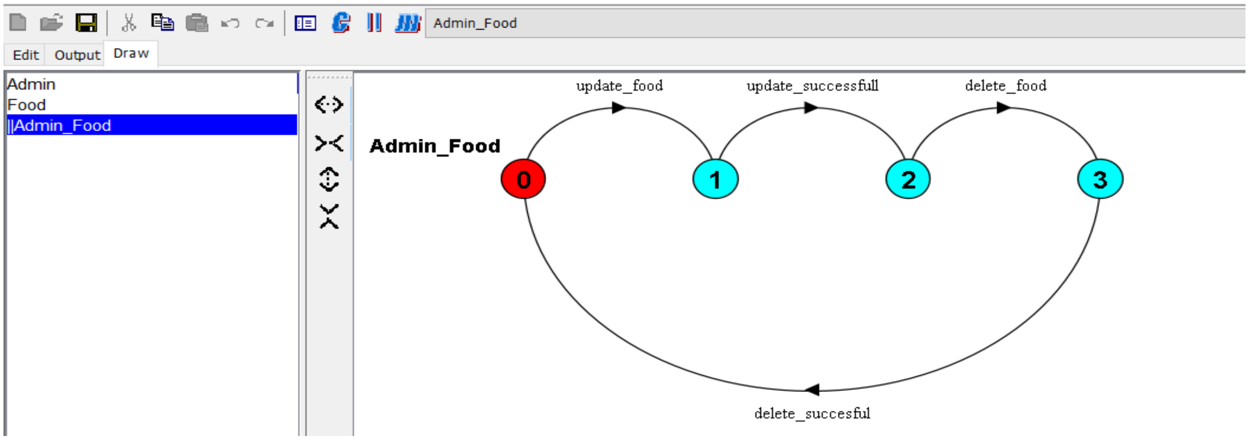
```
Reservation =(book_reservation -> if_available -> booking_successful ->Reservation
         |book_reservation -> else -> already_booked ->Reservation).
```

(e) Transition Diagram:

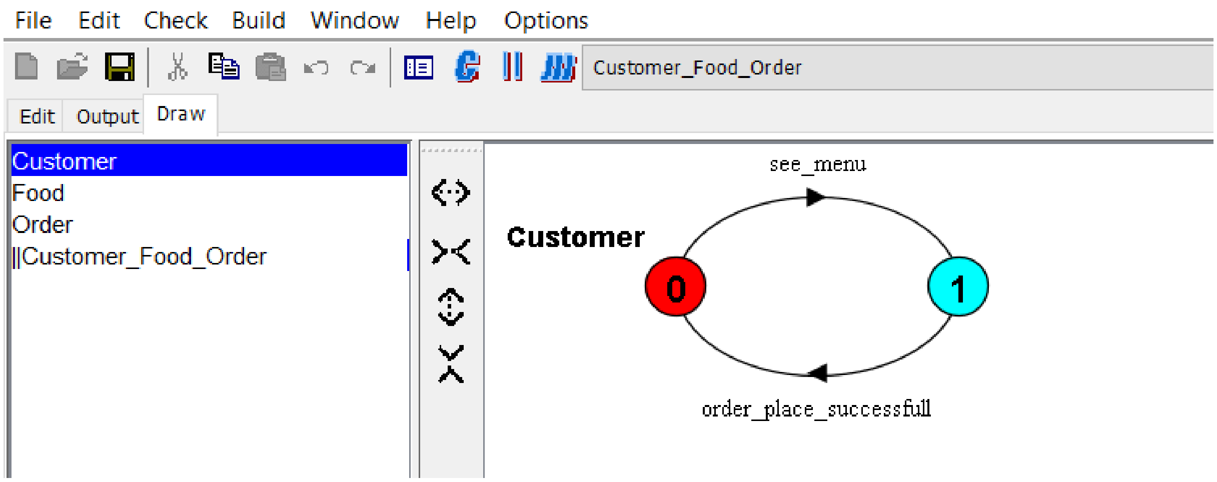
<u>For Update & Delete</u>:

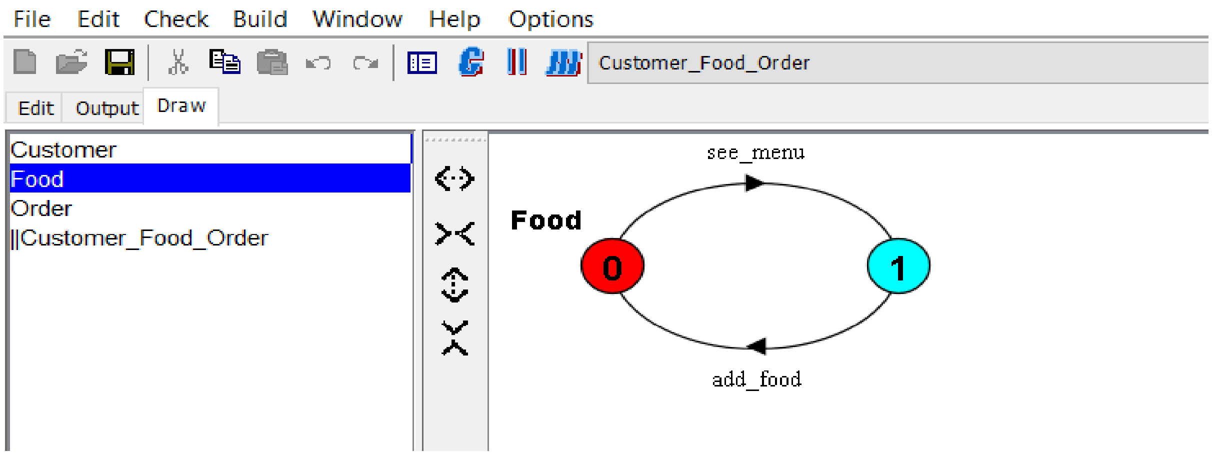


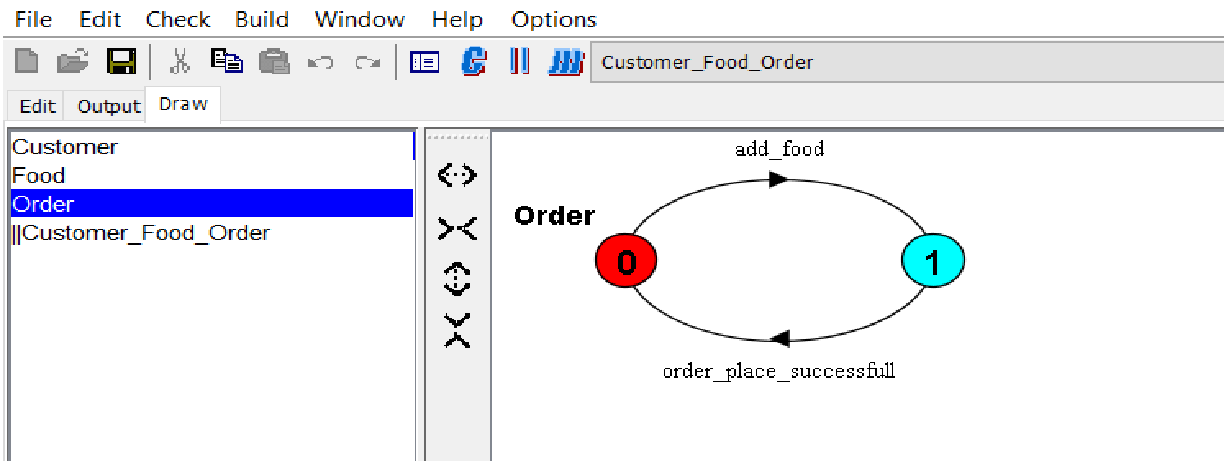


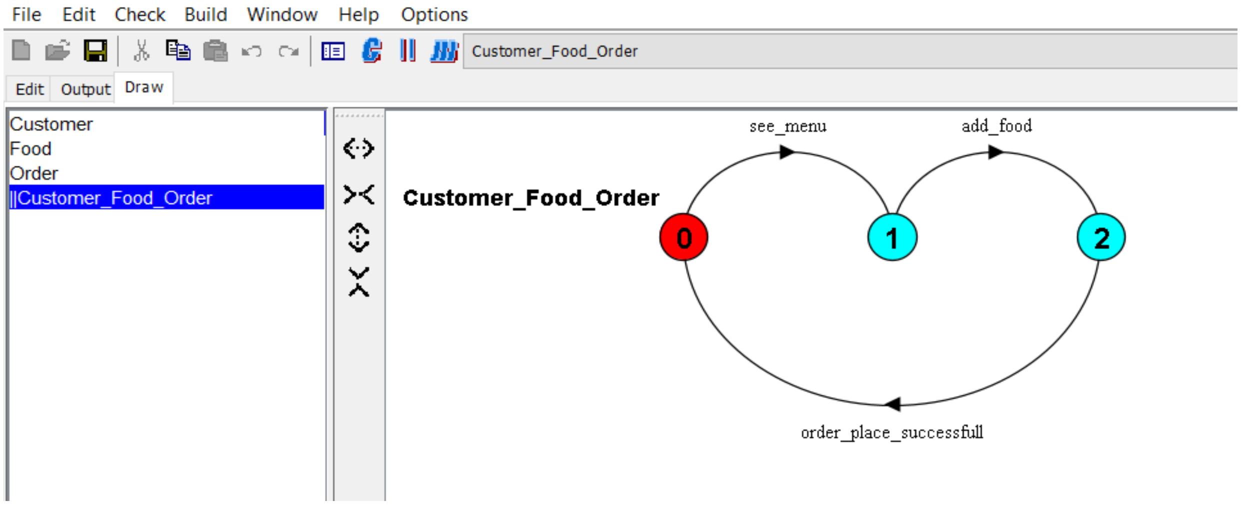


<u>For Order place</u>:

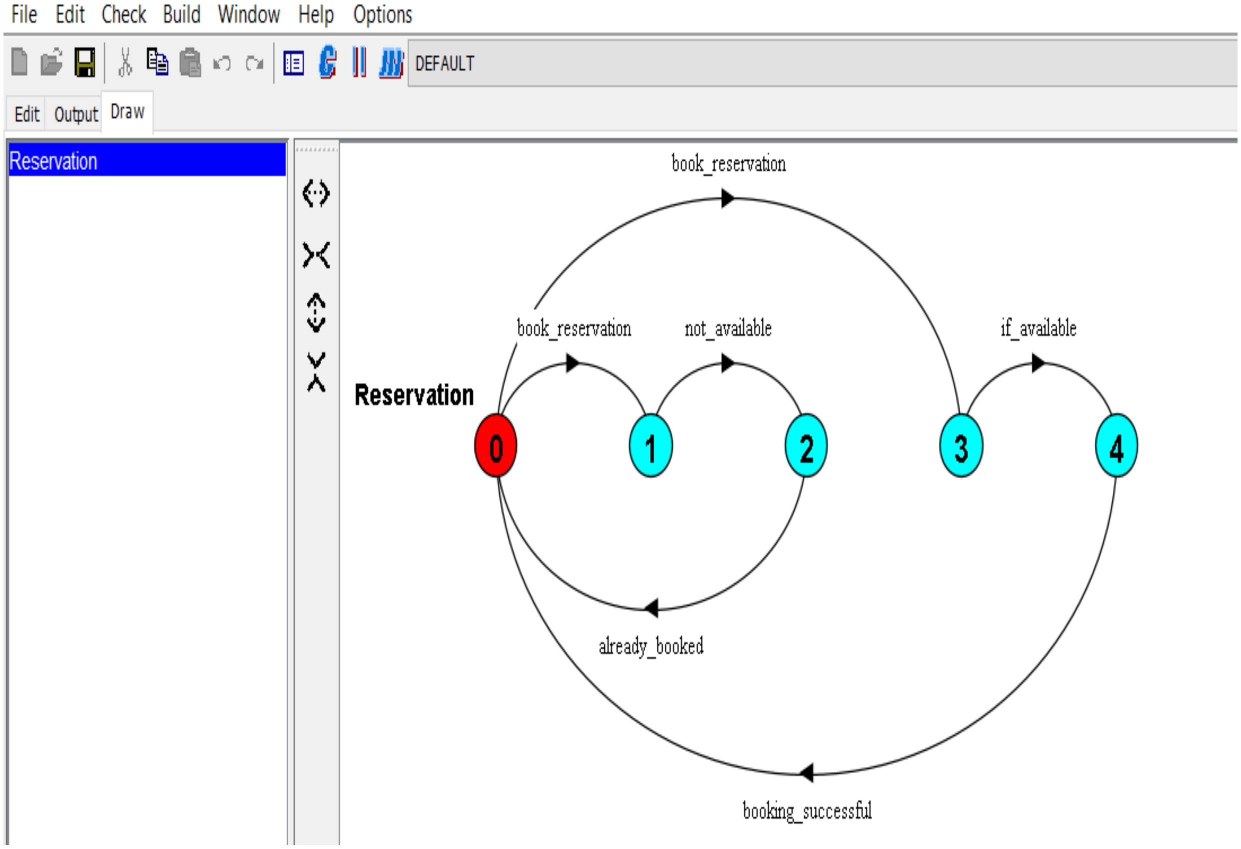








For Reservation: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DEFAULT
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Reservation
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Reservation
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already_booked
booking_successful