

Project – Part 4 (Group Project, 18 Marks)

Group # 5:

Student ID	Name	Surname
202219102	Xiaoyuanying	Kuang
202219015	Jun	Qi
202219044	Yueheng	Wang
202219072	Fanghua	Dai
202219077	Jiayi	Li

Case Study

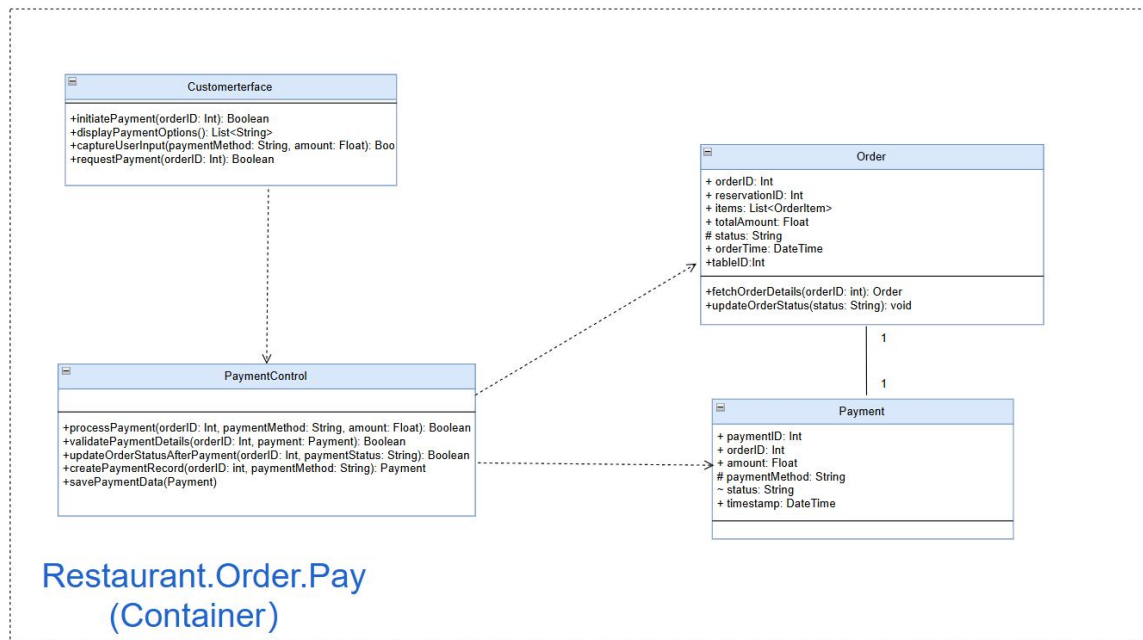
High-tech Restaurant.

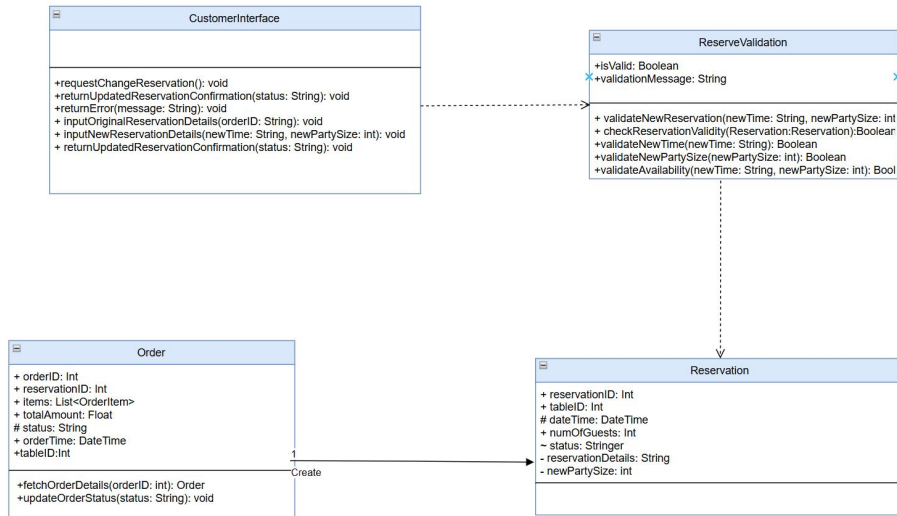
The restaurant maintains an electronic catalogue for the list of food and beverage items that it provides. Meal customization is supported. Customers are provided by a unique APP to order food and pay bill on premises, to order online and to make bookings. An extended customer record is maintained, so it is possible to build a profile for the different customers. Data collection includes traditional user data (e.g. requested meals/beverages) integrated with additional data (e.g. time of purchase or visit, number of people attending, etc.) to increase the profile accuracy. Premium customers are awarded with discounts, as well as customised offers based on the profile generated are periodically sent to customers. The platform is connected to suppliers and provides an automated estimation of food/beverage requests through an external AI-powered service. These requests are validated by the manager in the system and, then, is automatically sent to the different providers. A similar service is available to connect food delivery services: a delivery request received through the restaurant APP can be automatically forwarded to the delivery company.

1. Describe software components by adopting UML Class Diagrams (Individually assessed, 18 marks)

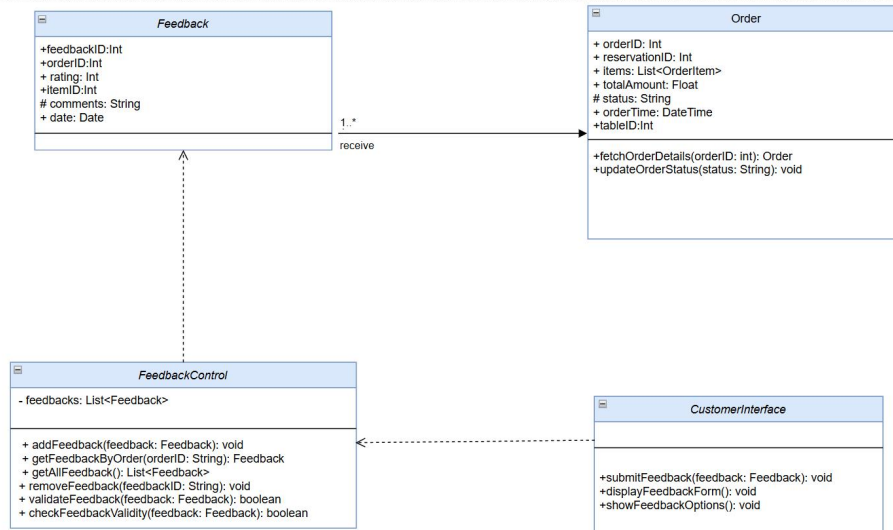
1 Restaurant.Order

Student: Jun Qi (202219015)
 Component: Restaurant.Order.Feedback
 Restaurant.Order.Reservation
 Restaurant.Order.MealSelection
 Restaurant.Order.Pay

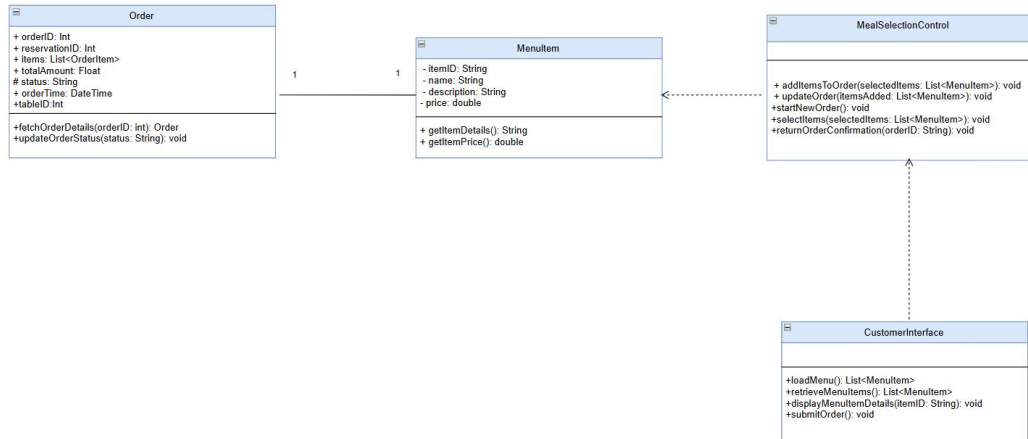




Restaurant.Order.Reservation (Container)



Restaurant.Order.Feedback (Container)



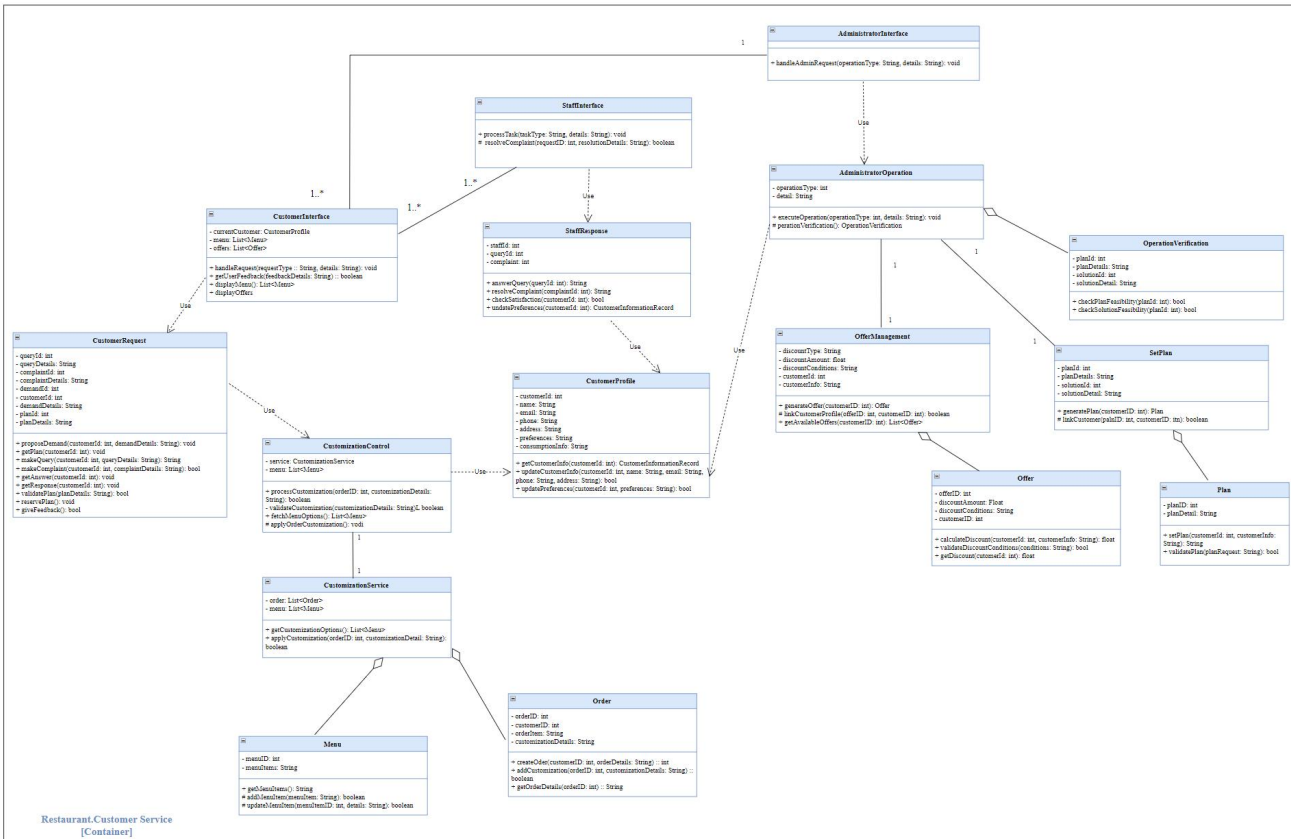
Restaurant.Order.MealSelction
(Container)



2 Restaurant.CustomerService

Student: Jiayi Li(202219077)

Component: Restaurant.Customer Service.Customization Service&
Restaurant.Customer Service.Customer Interaction&
Restaurant.Customer Service.Offer Management

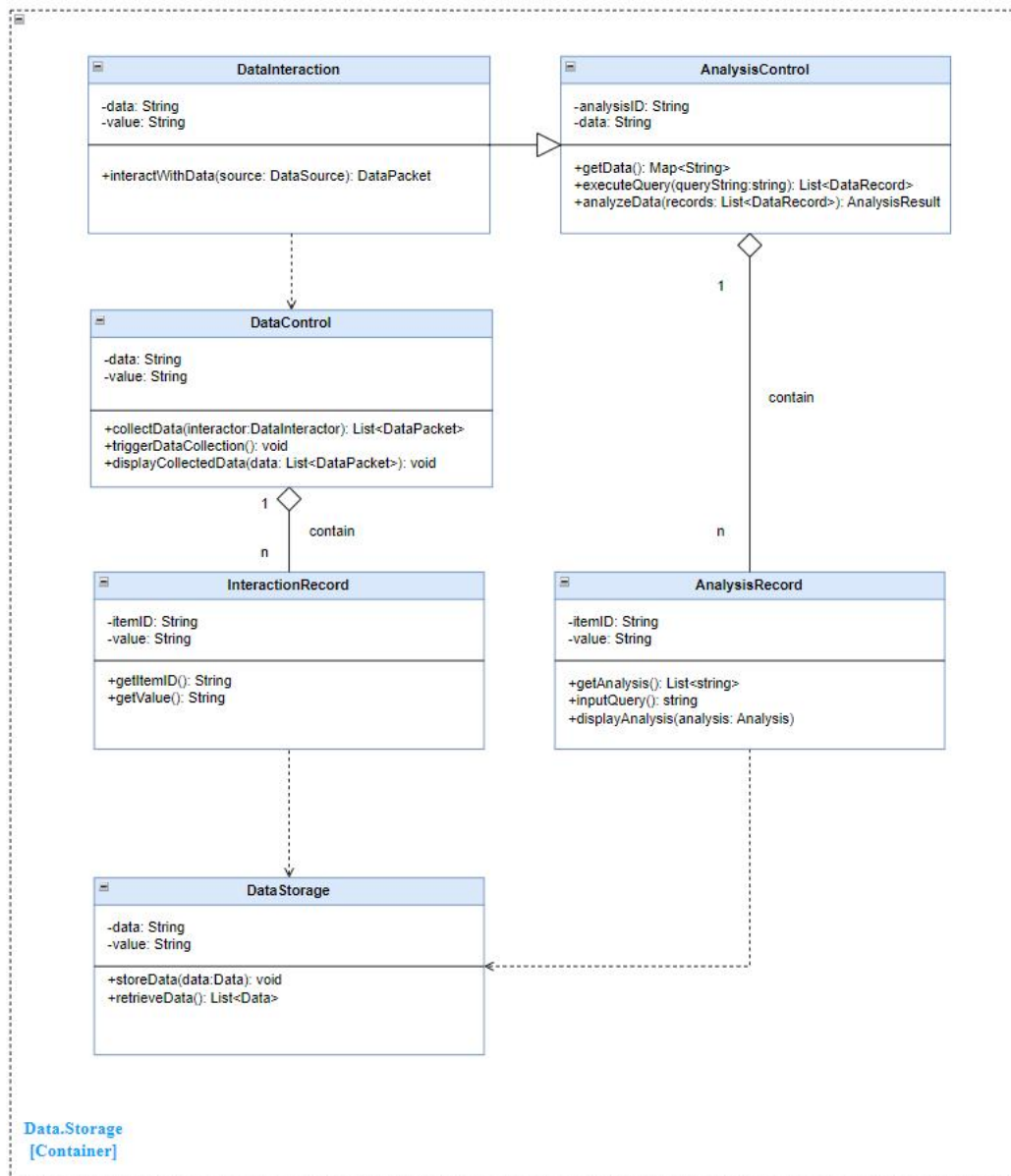




3 Restaurant.DataStorage

Student:Fanghua Dai(202219072)

Component:Database.DataStorage.DataInteraction&
Database.DataStorage.DataAnalysis

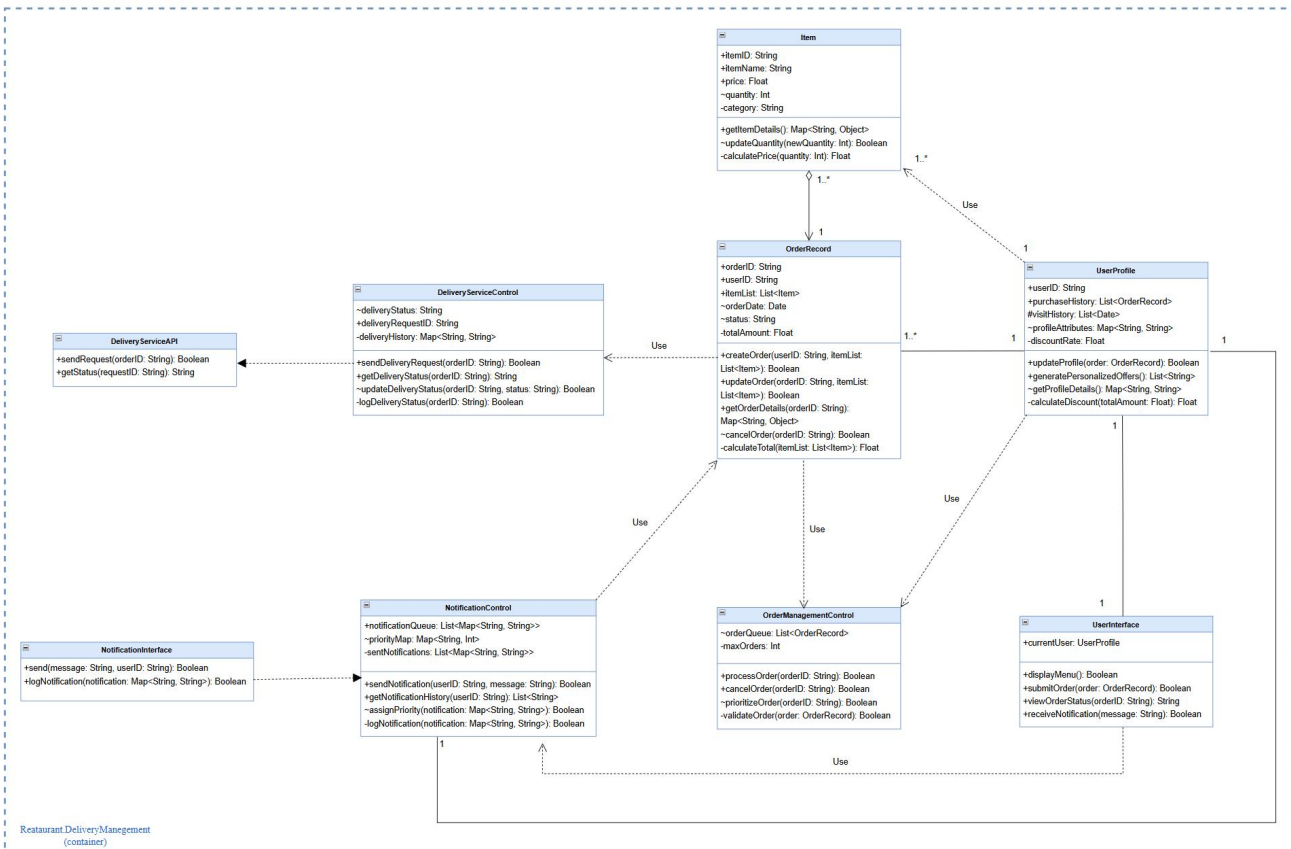




4 Restaurant.Delivery

Student: Yueheng Wang(202219044)

Component: Restaurant.Delivery.InformationModification&
Restaurant.Delivery.Take-outOrderNotification&
Restaurant.Delivery.Take-out OrderModification
Restaurant.Delivery.Feedback

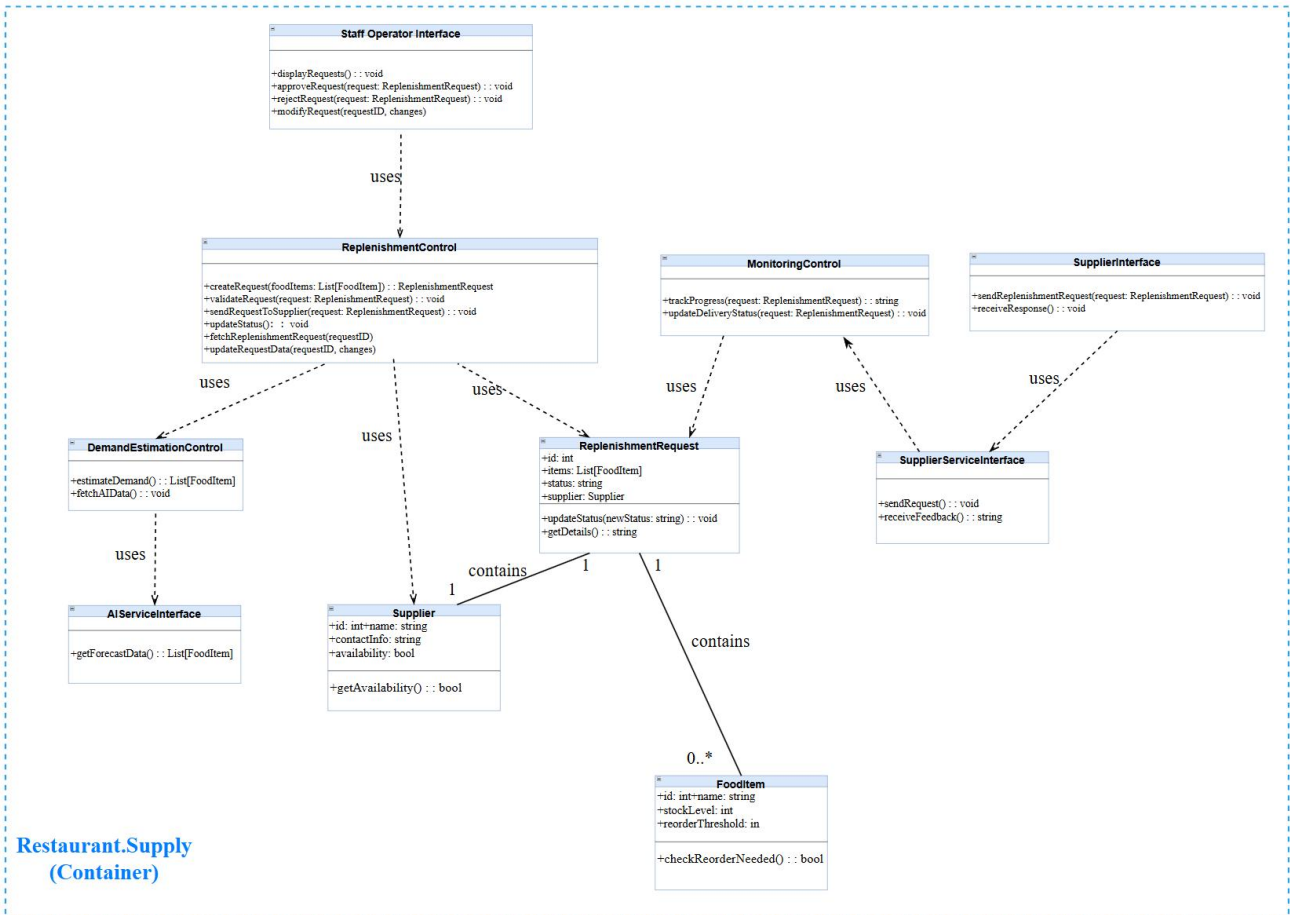




5 Restaurant.Supply

Student: Xiaoyuanying Kuang (202219102)

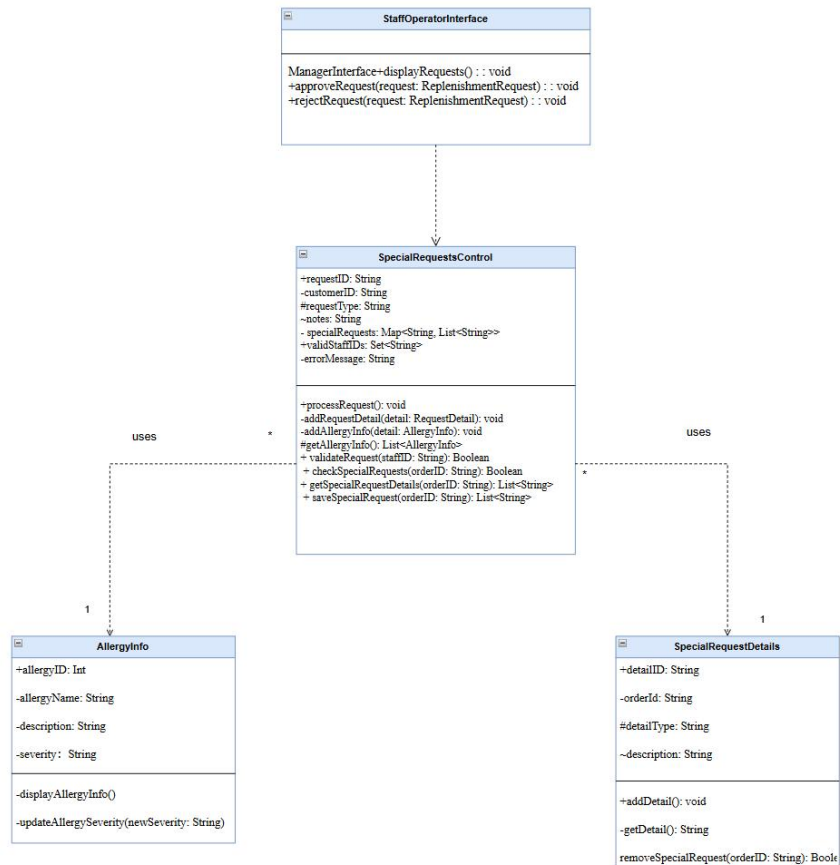
Component: Restaurant.Supply.ReplenishmentNotification &
Restaurant.Supply.ReplenishmentComfirmation &
Restaurant.Supply.DemandManage &
Restaurant.Supply.ReplenishmentMonitor



6 Restaurant.MealService

Student: Xiaoyuanying Kuang (202219102)

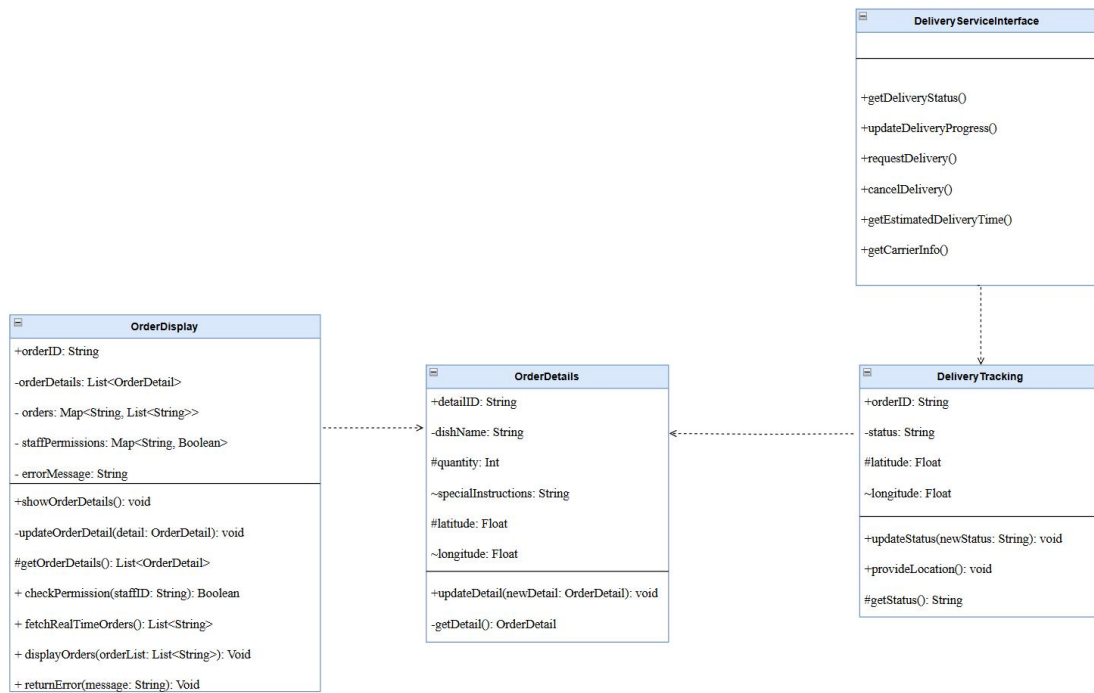
Component:Restaurant.MealService.SpecialRequest



Restaurant.MealService.SpecialRequest
(Component)

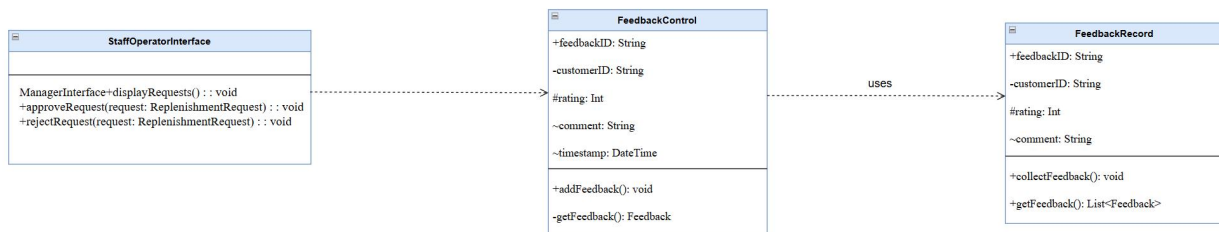
Student: Xiaoyuanying Kuang (202219102)

Component: Restaurant.MealService.OrderDisplay&DeliveryTracking



Restaurant.MealService.OrderDisplay&DeliveryTracking
(Component)

Student: Xiaoyuanying Kuang (202219102)
Component: Restaurant.MealService.Feedback



Restaurant.MealService.Feedback
(Component)