**Design Class Diagram V1 Notes**  
- Data types for attributes and the parameters (including their types) and return types for operations have been added for all classes.

- For restaurant booking processes, two different types of bookings can be created: Online and Telephone. Therefore, PhoneBooking and OnlineBooking classes have been created separately.

- Attributes, operations, data types, and return types have been added for both PhoneBooking and OnlineBooking.  
  
- Since PhoneBooking and OnlineBooking are child classes of the Booking Class, an "Extends" inheritance relationship has been established:

--PhoneBooking extends Booking

--OnlineBooking extends Booking  
  
- A new operation, addNoofCovers(covers:int):void, has been added to the Booking class.  
  
- The FOH gateway uses objects from both the Booking and Sale classes. Therefore, a composition relationship has been established between the FOH Gateway and the Booking Class, and between the FOH Gateway and the Sale Class.  
  
- Multiplicities have been specified in the established composition relationships.  
  
  
- The Kitchen Gateway uses objects from both the Ingredient and Order classes. Consequently, a composition relationship has been established between the Kitchen Gateway and the Order class, and between the Kitchen Gateway and the Ingredient class.  
  
  
  
- Multiplicities have been specified in the established composition relationships.  
  
  
  
  
  
- The Dish Class used an attribute called allergenList and a method called setAllergens(). However, there was no Allergen class in our Analysis Class Diagram. An Allergen type class has been created to allow the Dish Class to use Allergen objects.  
  
- Attributes, data types, parameters (and their types), and return types have been added for the Allergen type class.  
  
- Since the Dish Class uses an Allergen type object, a composition relationship has been established between the Dish class and the Allergen class.  
  
- The SupplierGateway had an attribute named supplierList and an operation named retrieveSupplier(). A class named Supplier has been created to use these more effectively. This class contains only the supplier's information.  
  
- Attributes, data types, parameters (and their types), and return types have been added for the Supplier Class.  
  
- Since the SupplierGateway uses a Supplier type object, a composition relationship has been established between the SupplierGateway and the Supplier Class.  
  
- Suppliers must maintain a list of their products. Therefore, the Supplier class has an attribute named productList and operations such as getProductList(), addProduct(), and removeProduct(). A Product class has been created to use these more effectively.  
  
- The Product Class represents the products held by the supplier. The Ingredient class, representing the materials in the kitchen, had already been created.  
  
- Attributes, data types, parameters (and their types), and return types have been added for the Product Class.  
  
- Since the Supplier Class uses an object from the Product Class, a composition relationship has been established between the Supplier Class and the Product Class.  
  
- Multiplicities have been specified in the established composition relationships.