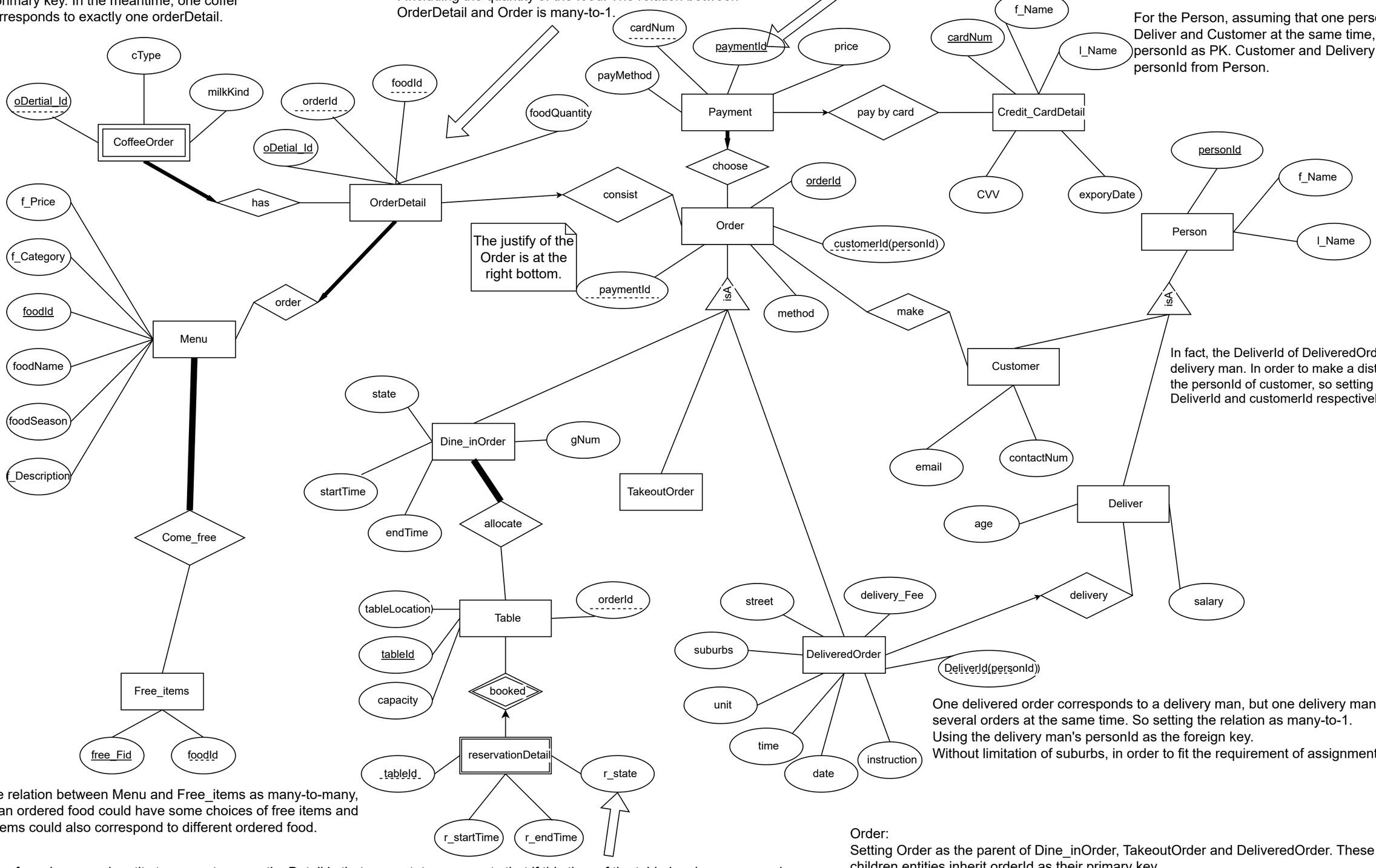
To customize the coffee order, setting the entity CoffeeOrder as a weak entity. The reason is that a coffee order relies on an OrderDetail which has ordered a cup of coffee, and it does not need a primary key. In the meantime, one coffer order corresponds to exactly one orderDetail.

OrderDetail is an entity of presents the items in the order, using orderId as the foreign key, oDetial_Id as the primary key . Including the quantity of the food. The relation between OrderDetail and Order is many-to-1.

The order should have a payment, so setting the relation between Payment and Order as exactly one.

For the Person, assuming that one person can not be Deliver and Customer at the same time, so using personId as PK. Customer and Delivery man inherited personId from Person.



Settingthe relation between Menu and Free_items as many-to-many, because an ordered food could have some choices of free items and the free items could also correspond to different ordered food.

The reason for using a weak entity to present reservationDetail is that the relation between Table and reservationDetail is 1-to-many, and reservationDetail can't exist without a table.

r_state represents that if this time of the table has been reserved, when the system needs the availability of the table, it should check the reservation of that time.

In fact, the DeliverId of DeliveredOrder is personId of delivery man. In order to make a distinction with the personId of customer, so setting their personId as DeliverId and customerId respectively.

One delivered order corresponds to a delivery man, but one delivery man may hold several orders at the same time. So setting the relation as many-to-1.
Using the delivery man's personId as the foreign key.
Without limitation of suburbs, in order to fit the requirement of assignment.

Order:
Setting Order as the parent of Dine_inOrder, TakeoutOrder and DeliveredOrder. These three children entities inherit orderId as their primary key.
And for the relation between Dine_inOrder and Table, setting it as many-to-1, because Dine_inorder should have a reservation which means it should take a period of a table. One table could correspond to several Dine_inOrders at different times.