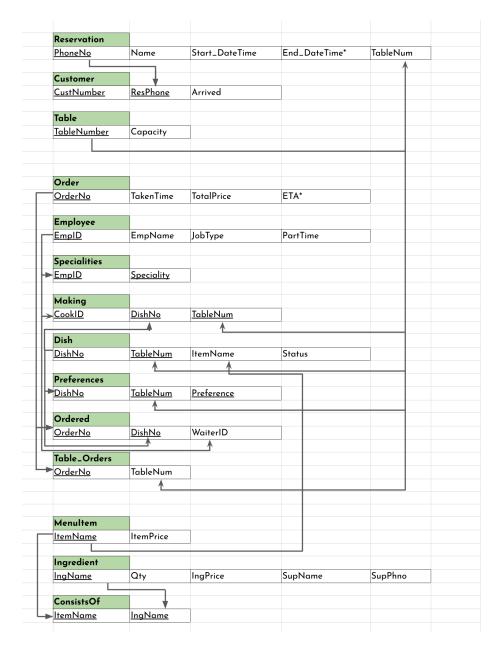## Second Normal Form

The second normal form requires that no non-prime attribute is dependent on a subset of the primary key. Most tables either have a singleton primary key or have no non-prime attributes, and therefore satisfy this normal form.

The only table that needs to be decomposed is ORDERED, in which the dependency OrderNo $\rightarrow$ TableNum exists (the key is $\langle$OrderNo, DishNo$\rangle$).
To solve this, TableNum is removed from ORDERED and a new relation, TABLE_ORDERS, is created. This relation has as its key OrderNo and another attribute, *i.e.*, TableNum. Both these two new tables satisfy 2NF.

**Reservation**

| PhoneNo | Name | Start_DateTime | End_DateTime* | TableNum |
|---|---|---|---|---|

**Customer**

| CustNumber | ResPhone | Arrived |
|---|---|---|

**Table**

| TableNumber | Capacity |
|---|---|

**Order**

| OrderNo | TakenTime | TotalPrice | ETA* |
|---|---|---|---|

**Employee**

| EmpID | EmpName | JobType | PartTime |
|---|---|---|---|

**Specialities**

| EmpID | Speciality |
|---|---|

**Making**

| CookID | DishNo | TableNum |
|---|---|---|

**Dish**

| DishNo | TableNum | ItemName | Status |
|---|---|---|---|

**Preferences**

| DishNo | TableNum | Preference |
|---|---|---|

**Ordered**

| OrderNo | DishNo | WaiterID |
|---|---|---|

**Table_Orders**

| OrderNo | TableNum |
|---|---|

**MenuItem**

| ItemName | ItemPrice |
|---|---|

**Ingredient**

| IngName | Qty | IngPrice | SupName | SupPhno |
|---|---|---|---|---|

**ConsistsOf**

| ItemName | IngName |
|---|---|

Second Normal Form