**Chapter 4: Data Dictionary**

**Customer**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each customer can have zero or many foods, each customer can have one or many invoice | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| CUSTOMER\_ID | VARCHAR2 | PK | 5 | Unique ID for each customer | C002 |
| CUSTOMER\_FirstName | VARCHAR2 | - | 30 | Customer’s first name | Tan |
| CUSTOMER\_LastName | VARCHAR2 | - | 30 | Customer’s last name | Lee Hwa |
| CUSTOMER\_Email | VARCHAR2 | - | 30 | Customer’s email | tanleehwa@gmail.com |
| CUSTOMER\_Phone | NUMBER | - | 12 | Customer’s contact number | 0111110298 |

**Inventory**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each inventory can have only one food | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| INVENTORY\_ID | VARCHAR2 | PK | 5 | Unique ID for each inventory | IT002 |
| ITEM\_Name | VARCHAR2 | - | 30 | Item name in inventory | Oil |
| ITEM\_Desc | VARCHAR2 | - | 30 | Item descriptions | Olive oil |
| ITEM\_Quantity | NUMBER | - | 4 | Item quantity in stock | 250 |
| ITEM\_Unit | NUMBER | - | 10 | Item unit number | 1.5Kg |
| ITEM\_Price | NUMBER | - | 10 | Item price | 25.00 |

**Food**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each food can be consumed by only one customer, each food can be part of zero or many cart food, each food can have one or many available in inventory, each food may be a meal, each food may be a beverage, each food may be a dessert | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| FOOD\_ID | VARCHAR2 | PK | 5 | Unique ID for each food | F003 |
| FOOD\_Name | VARCHAR2 | - | 40 | Food’s name | Mapo Tofu with White Rice |
| FOOD\_Details | VARCHAR2 | - | 100 | Food’s ingredients and way of cooking | tofu cooked with rich spicy, and savory sauce |
| FOOD\_Price | NUMBER | - | 10 | Food’s pricing | 8.00 |
| INVENTORY\_ID | VARCHAR2 | NOT NULL CONSTRAINT  FK references  inventory(inventory\_id) | 5 | Foreign key from Inventory table | IT002 |
| CUSTOMER\_ID | VARCHAR2 | NOT NULL CONSTRAINT  FK references  customer(customer\_id) | 5 | Foreign key from Customer table to identify which customer order a food | C001 |

**Meal**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each Meal must be a food | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| FOOD\_ID | VARCHAR2 | PK, FK | 5 | Primary & Foreign key from Food Table | F001 |

**Beverage**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each Beverage must be a food | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| FOOD\_ID | VARCHAR2 | PK, FK | 5 | Primary & Foreign key from Food Table | F001 |

**Dessert**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each Dessert must be a food | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| FOOD\_ID | VARCHAR2 | PK, FK | 5 | Primary & Foreign key from Food Table | F001 |

**Cart\_Food**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each cart food can have only one food, each cart food can have only one cart | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| CARTFOOD\_ID | NUMBER | PK | 2 | Unique ID for each cart food | 1 |
| FOOD\_ID | VARCHAR2 | Not Null Constraint  FK references  Food(food\_id) | 5 | Foreign key from food table | F001 |
| CART\_ID | VARCHAR2 | Not Null Constraint  FK references  Cart(cart\_id) | 7 | Foreign key from cart table | Cart01 |
| CART\_FoodQuantity | NUMBER | - | 2 | Quantity of food in a cart | 2 |
| CART\_Food\_Customization | VARCHAR2 | - | 100 | Customer can customize their food | No sesame (Teriyaki Chicken Poke Bowl) |

**Cart**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each cart can have zero or many cart food, each cart can have zero or one invoice | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| CART\_ID | VARCHAR2 | PK | 7 | Unique ID for each Cart | Cart02 |
| CART\_Status | VARCHAR2 | Check Constraint (cart\_status in (‘Abandoned', 'Pending’, ‘Processing’)) | 20 | Status of a cart | Pending |
| CUSTOMER\_ID | VARCHAR2 | NOT NULL CONSTRAINT  FK references  customer(customer\_id) | 5 | Foreign key from Customer table | C002 |

**Invoice**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each invoice can be made to only one cart, each invoice can be made to only one customer, each invoice can be made to only one order | | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| INVOICE\_ID | VARCHAR2 | PK | 5 | Unique ID for each Invoice | IV002 |
| INVOICE\_Date | DATE | Default Constraint  (invoice\_date in (‘TO\_DATE()’)) | - | Date of Invoice | 3/10/2024 |
| INVOICE\_Time | VARCHAR2 | - | 8 | Time of Invoice | 16:45 |
| PAYMENT\_Method | VARCHAR2 | Check Constraint (payment\_method in ('Cash', 'QR Payment', 'Credit/Debit Card’)) | 20 | Payment method for the food ordered | Cash |
| PAYMENT\_Amount | NUMBER | - | 20 | Payment total amount | 36.80 |
| CUSTOMER\_ID | VARCHAR2 | Not Null Constraint  FK references  Customer(customer\_id) | 5 | Foreign key from Customer table | C004 |
| ORDER\_ID | VARCHAR2 | Not Null Constraint  FK references  Order(order\_id) | 7 | Foreign key from Order table | Ord003 |

**Order**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each order can only have one invoice, each order is only for one table, each order can be handled by only one staff | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| ORDER\_ID | VARCHAR2 | PK | 7 | Unique ID for each Order | Ord002 |
| ORDER\_Date | DATE | Default Constraint  (order\_date in (‘TO\_DATE()’)) | - | Date of order | 15/11/2024 |
| ORDER\_Time | VARCHAR2 | - | 8 | Time of order | 08:32 |
| ORDER\_Status | VARCHAR2 | Check Constraint (order\_status in ('Completed', 'Processing', Cancelled’)) | 20 | Status of order | Processing |
| TABLE\_ID | VARCHAR2 | Not Null Constraint  FK references  Table(table\_id) | 4 | Foreign key from Table table | T001 |
| STAFF\_ID | VARCHAR2 | Not Null Constraint  FK references  Staff(staff\_id) | 4 | Foreign key from Staff table | S001 |

**Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each table can have only one order, each table can have only one reservation, each table can have only one customer | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| Table\_ID | VARCHAR2 | PK | 5 | Unique ID for each table | T004 |
| Table\_Location | VARCHAR2 | Check Constraint  (table\_location in (‘Indoor’, ‘Outdoor’)) | 10 | Table location for customer | Indoor |
| Table\_Status | VARCHAR2 | Check Constraint  (table\_status in (‘Available’, ‘Occupied’, ‘Reserved’)) | 15 | Table availability | Occupied |
| CUSTOMER\_ID | VARCHAR2 | Not Null Constraint  FK references  Customer(customer\_id) | 5 | Foreign key from Customer table | C001 |

**Reservation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each reservation can have one or many table, each reservation can have only one customer | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| RESERVATION\_ID | VARCHAR2 | PK | 5 | Unique ID for each reservation | R001 |
| RESERVATION\_Time | VARCHAR2 | - | 8 | A composite primary key for prescription. A foreign key from appointment table | 10:04 |
| RESERVATION\_Date | DATE | Default Constraint  (reservation\_date in (‘TO\_DATE()’)) | - | Date of reservation | 26/04/2024 |
| CUSTOMER\_ID | VARCHAR2 | Not Null Constraint  FK references  Customer(customer\_id) | 5 | Foreign key from Customer table | C004 |
| Table\_ID | VARCHAR2 | Not Null Constraint  FK references  Table(table\_id) | 5 | Foreign key from Table table | T005 |

**Staff**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each staff can handle zero or many order, each staff may be a chef or not a chef, each staff may be an admin or not an admin, each staff may be a waiter or not a waiter | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| STAFF\_ID | VARCHAR2 | PK | 5 | Unique ID for each staff | S001 |
| STAFF\_ShiftHour | VARCHAR2 | Check Constraint  (staff\_shifthour in (‘Morning’, ‘Evening’, ‘Off’)) | 15 | Staff working shift status | Evening |
| STAFF\_Salary | NUMBER | - | 20 | Staff salary | 2500.00 |
| STAFF\_FirstName | VARCHAR2 | - | 30 | Staff first name | Ong |
| STAFF\_LastName | VARCHAR2 | - | 30 | Staff last name | Yi Sheng |
| STAFF\_Phone | NUMBER | - | 12 | Staff contact number | 0126435156 |
| STAFF\_Role | VARCHAR2 | Check Constraint  (staff\_role in (‘Chef’, ‘Waiter’, ‘Admin’)) | 10 | Staff role | Waiter |

**Chef**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each chef must be a staff | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| STAFF\_ID | VARCHAR2 | PK | 6 | Unique ID for each chef | S001 |

**Waiter**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each waiter must be a staff | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| STAFF\_ID | VARCHAR2 | PK | 6 | Unique ID for each waiter | S001 |

**Admin**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Occurrence:** Each admin must be a staff | | | | | |
| **Entity Name** | **Data Type** | **Constraint Type** | **Field Size** | **Description** | **Example** |
| STAFF\_ID | VARCHAR2 | PK | 6 | Unique ID for each admin | S001 |