**ER MODEL DIAGRAM**

**List of Relation**  
  
Staff (StaffID, Name, Gender, ContactNo, DateJoin, BasicSalary, <BranchNo> )

Member (MemberID, MemberNRIC, Name, Gender, DOB, ContactNo, Address, EmailAddr, DateJoin)

Branch (BranchNo, Name, Address, ContactNo, <ProductID>)

Product (ProductID, Quantity, Price)

Service (ServiceID, Name, Description, Price, Duration, <staffID>)

PaySlip (<StaffID>, <Date>, Commission, <ReceiptNo> )

Booking (BookingNo, SeatNo, DateBooked, TimeBooked, EndTimeBooked, <ServiceID> )

Receipt (ReceiptNo, Quantity, Date, Time, AmountOfGST, TotalAmount, PaymentMode, <ProductID>, <ServiceID> )  
  
Stock(Quantity, Description, Origin , Manufacture , Expiry Date, <BranchNo>, <ProductID>)

**Data Dictionary**

Relation: Staff

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| StaffID | Unique identifier of each member of staff. | varchar(10) | Primary Key | No. |
| Name | Name of staff | varchar(50) |  | No. |
| Gender | Gender of staff | char(1) | Values: M for Male, F for Female. | No. |
| ContactNo | Contact Number of Staff | varchar(10) |  | No. |
| DateJoin | Date that staff joined the company | datetime |  | No. |
| BasicSalary | Basic Salary of each Staff. | money |  | No. |
| BranchNo | Identifies branch that staff is working. | int | Foreign Key 🡪 Branch (BranchNo) | No. |

Relation: Member

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| MemberID | Unique Identifier of each member. | Auto-generated numeric | Primary Key | No. |
| MemberNRIC | NRIC of Member. | char(9) |  | No. |
| Name | Name of Member. | varchar(50) |  | No. |
| Gender | Gender of Member | char(1) | Values: M for Male, F for Female. | No. |
| DOB | Date of Birth of Member | datetime |  | Yes. |
| ContactNo | Contact number of Member | char(10) |  | No. |
| Address | Local address of member. | varchar(150) |  | No. |
| EmailAddr | Email address of Member | varchar(50) |  | Yes. |
| DateJoin | Date that member joined (Default to today’s date) | datetime | DateJoin not later than today. | No. |

Relation: Branch

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| BranchNo | Unique identifier of each Branch No | int | Primary Key | No |
| Name | Name of the branch | varchar(50) |  | No |
| Address | Address of the branch | varchar(150) |  | No |
| ContactNo | Contact Number of the branch | char(10) |  | No |
| ProductID | Unique identifier of each product | int | Foreign Key 🡪 Product(ProductID) | No |

Relation: Product

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| ProductID | Unique identifier of each product | Auto-generated numeric | Primary Key | No |
| Quantity | The quantity of the product in stock. | int |  | No |
| Price | Price of the product | money |  | No |

Relation: NPService

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| ServiceID | Unique identifier of each service | Auto-generated numeric | Primary key | No |
| Name | Name of services | varchar(50) |  | No |
| Description | Description of the sevices | varchar(100) |  | Yes |
| Price | Pricing of the services | money |  | No |
| Duration | Duration of the services | varchar(5) |  | No |
| StaffID | Unique identifier of each member of staff. | varchar(10) | Foreign Key 🡪 Staff(StaffID) | No. |

Relation: PaySlip

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| StaffID | Unique identifier of each member of staff. | varchar(10) | Primary Key  Foreign Key 🡪 Staff(StaffID) | No. |
| Date | Date the pay slip is been produced | Datetime |  | No |
| Commission | The amount of commission earn monthly by the staff. | smallmoney | 5% of the receipt. | No |
| ReceiptNo | Unique identifier of each receipt | int | Foreign Key 🡪 Receipt(ReceiptNo) | No. |

Relation: Booking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| Booking No | Unique identifier of each member of booking. | Auto-generated numeric | Primary Key | No |
| SeatNo | The seat number of the booking. | int |  | No |
| DateBooked | Date selected by the customer when they make the booking | datetime |  | No |
| TimeBooked | Time chosen by the customer when they made the booking | datetime |  | No |
| EndTimeBooked | The time that the booking ended | datetime |  | No |
| ServiceID | Unique identifier of each Service | int | Foreign Key 🡪 Service(ServiceID) | No. |
| MemberID | Unique identifier of each member | int | Foreigh Key 🡪  Member(MemberID) | No |

Relation: Receipt

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| ReceiptNo | Unique identifier of each receipt | Auto-generated numeric | Primary key | No |
| Quantity | The quantity of the products | int |  | No |
| Date | Date of transaction being made | datetime | must not be later than current date | No |
| Time | The time of transaction made | datetime | must not be later than current time | No |
| AmountOfGST | The amount of GST, 7% | smallmoney | Cannot be lesser than 7% or greater than 7% | No |
| TotalAmount | The total amount of the sales | money |  | No |
| PaymentMode | Type of payment, such as nets, visa or cash | varchar(20) |  | No |
| ProductID | Unique identifier of each product | int | Foreign Key 🡪 Product(ProductID) | No. |
| ServiceID | Unique identifier of each service | Int | Foreign Key 🡪 Service(ServiceID) | No. |

Relation: Stock

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Data Type** | **Constraint** | **Null Value** |
| Quantity | Quantity of the stocks | Int |  | No |
| ProductID | Unique identifier of each product | Int | Foreign Key 🡪 Product(ProductID) | No |
| BranchNo | Unique identifier of each branch | Int | Foreign Key 🡪 Branch(BranchID) | No |
| Description | Description of the product | varchar(200) |  | Yes |
| Origin | The origin of the product | varchar(50) |  | No |
| Manufacture | The name of the manufacture that produce the product | varchar(50) |  | No |
| Expiry Date | Expiry Date of the product | datetime |  | No |