EMPLOYEE MANAGEMENT

tbEmployee

The table includes all of staff information, which helps admin manage data better.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| eId | Varchar(30) | No |  | PK |  | Employee Id | 6 digit-code auto generated |
| eUsername | Varchar(30) | No |  |  |  | Username | UNIQUE |
| ePassword | Varchar(30) | No |  |  |  | Password | Password validation |
| eName | Varchar(30) | No |  |  |  | Name | Name validation |
| eBirthday | DateTime | No |  |  |  | Birthday | Age > 18 |
| eAddress | Varchar(30) | No |  |  |  | Address |  |
| eEmail | Varchar(30) | No |  |  |  | Email | Email validation |
| ePhone | Varchar(30) | No |  |  |  | Phone | 10-digit number |
| eCounterId | int | No | 1 | FK | CounId (tbCounter) | Workplace  (CounId) |  |
| eRole | int | No | 2 |  |  | Role | 0: Deactivated  1: Administrator  2: Employee |

ACCOUNT AND CUSTOMER MANAGEMENT

Table Account restores accounts created for booking online, while table Customer illustrates details of all commuters.

tbAccount

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| aId | int | No |  | PK |  | Account Id | Auto generated |
| aUsername | Varchar(30) | No |  |  |  | Username | UNIQUE |
| aPassword | Varchar(30) | No |  |  |  | Password | Password validation |
| aName | Varchar(30) | No |  |  |  | Name | Name validation |
| aBirthday | DateTime | No |  |  |  | Birthday | Age > 18 |
| aEmail | Varchar(30) | No |  |  |  | Email | Email validation |
| aPhone | Varchar(30) | No |  |  |  | Phone | 10-digit number |

tbCustomer

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| cId | int | No |  | PK |  | Customer Id | Auto generated |
| cName | Varchar(30) | No |  |  |  | Name | Name validation |
| cBirthday | DateTime | No |  |  |  | Birthday |  |
| cPhone | Varchar(30) | No |  |  |  | Phone | 10-digit number |

BUS MANAGEMENT

These tables display various of data that is necessary for our bus management system.

tbBus

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| bId | int | No |  | PK |  | Bus Id | Auto generated |
| bNumber | Varchar(30) | No |  |  |  | Number | 5-digit number  UNIQUE |
| bTypeId | int | No |  | FK | bdTypeId (tbBusDetails) | Type Id |  |
| bNumOfSeats | int | No |  |  |  | Number of Seats |  |
| bStartTime | Time | No | 06:00 |  |  | Starting time |  |
| bParking | int | No |  |  |  | Parking place (CounId) |  |

tbBusDetails

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| bdTypeId | int | No |  | PK |  | Type Id | Auto generated |
| bId | int |  |  | FK | bId (tbBus) | Bus Id |  |
| bdType | Varchar(30) | No |  |  |  | Type of Bus | Volvo  Luxury  Express |
| bdPrice | float | No |  |  |  | Price |  |

tbSeat

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| sId | int | No |  | PK |  | Seat Id | Auto generated |
| bId | int | No |  | FK | bId (tbBus) | Bus Id |  |
| sNumber | int | No |  |  |  | Number | Max = NumberOfSeats |

tbRouteDetails

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| rdId | int | No |  | PK |  | Route Details Id | Auto generated |
| sId | int | No |  | FK | sId (tbSeat) | Seat Id |  |
| availability | bool | No |  |  |  | Availability |  |

tbRoute

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| rId | int | No |  | PK |  | Route Id | Auto generated |
| rdId | int | No |  | FK | rdId (tbRouteDetails) | Route Details Id |  |
| bId | int | No |  | FK | bId (tbBus) | Bus Id |  |
| rStartingPlace | int | No |  |  |  | Starting place (CounId) |  |
| rDestination | int | No |  |  |  | Destination (CounId) |  |
| rStartTime | DateTime | No |  |  |  | Starting datetime |  |
| eFinishTime | DateTime | No |  |  |  | Finish datetime |  |
| rPrice | float | No |  |  |  | Price | Depend on TypeId, Distance |

tbCounter

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| counId | int | No |  | PK |  | Counter Id |  |
| counName | varchar(30) | No |  |  |  | Counter Name |  |

BOOKING MANAGEMENT

Table Booking Details will base on some data in order to make customers’ payment.

Table Booking restores all booking details that is collected when customers make their reservation at our counters or via the internet. All this information can be managed by our employees.

tbBookingDetails

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| bkdId | int | No |  | PK |  | Booking Details Id | Auto generated |
| bkId | Varchar(30) | No |  | FK | bkId (tbBooking) | Booking Id |  |
| rId | int | No |  | FK | rId (tbRoute) | Route Id |  |
| cId | int | No |  | FK | cId (tbCustomer) | Customer Id |  |
| cPhone | Varchar(30) | No |  | FK | cPhone (tbCustomer) | Customer phone |  |
| cAge | int | No |  |  |  | Customer age |  |
| rPrice | float | No |  | FK | rPrice (tbRoute) | Price |  |
| sId | int | No |  |  |  | Seat Id |  |

tbBooking

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Field Name | Data Type | Null | Default | Key | Field-Ref | Description | Condition |
| bkId | Varchar(30) | No |  | PK |  | Booking Id | Auto generated |
| payment | float | No |  |  |  | Payment | Payment calculation |
| bkStatus | int | No |  |  |  | Status | 0: Cancelled 1: Placed 2: Completed |
| cancelDateTime | DateTime | Yes | Null |  |  | Cancel datetime |  |
| refund | float | No | 0 |  |  | Refund amount | Refund calculation |