**Database Documentation**

**Student Name: Class:**

**1. Purpose and Scope**

**Purpose of the Database:**

* ● **Purpose of the Database**:  
  The hotal Database Management System (HDMS) is designed to manage the operations of a hotal efficiently by integrating key entities like hotal, room, invoice, Rooms, and s. The database enables tracking, managing, and maintaining hotal resources and gust servses.

**Intended Use:**

* ● hotal admin This database is intended for use by hotal staff and administrators to manage daily operations, such as gust admissions, staff assignments, room allocations, and. Invoice for booking gust

**Scope:**

* ● The database encompasses entities such as invoice , Booking , Guest , Rooms, and Medicines, connected through relational models to streamline workflows and Hotal ensurw gust srevses compelted .

**2. Database Design**

**Logical Design:**

● invoice trake booking

Booking has room

Guest do booking and has serves

Room

Hotal montoring room

Service

**Physical Design:**

● invoice trake 1:1 booking

Booking has room

Guest do booking 1:m and has M:M serves

Room

Hotal montoring 1:m room

Service

●

**3. Data Dictionary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field**  **Name** | **Data Type** | **Description** | **Allowed**  **Values** | **Constraints** |
| GusitId | **Nvarchar(250)** | Unique identifier for Gust | Positive integers | PRIMARY KEY, NOT NULL |
| Full name | **Nvarchar(250)** | Full name for gust | Valid names |  |
| Countactnumber | nvarchar |  | Valid phone numper |  |
| IDnumber | nvarchar | Valid |  |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field**  **Name** | **Data Type** | **Description** | **Allowed**  **Values** | **Constraints** |
| Bookingid | **int** | Unique identifier for booking | Positive integers | **Pk not null** |
| roomid | int | identifier for room | Positive integers | fk |
| guestid | int | identifier for gust | Positive integers | fk |
| CheachinDate | data | CheachinDate for v=booking | Valed date |  |
| CheachoutDate | data | CheachoutDate for booking | Valed date |  |
| statues | nvarchar | The statues of the booking | Valed statues |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field**  **Name** | **Data Type** | **Description** | **Allowed**  **Values** | **Constraints** |
| Serviceid | **int** | Unique identifier for **servis** | Positive integers | **PK nut null** |
| ServiceName | nvarchar | The Name of the Services | **string** |  |
| Cost | int | The cost of the Services | Positive integers |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field**  **Name** | **Data Type** | **Description** | **Allowed**  **Values** | **Constraints** |
| invoiceid | **int** | Unique identifier for invoiceid | Positive integers | **Pk nut null** |
| Bookingid | int | identifier for Bookingid | Positive integers | Fk |
| totalamount | int | Totala prise for the invoiced | Positive integers |  |
| statues | Nvarcher | The statues of invoice | **string** |  |
| PaymentDate | date | The date of Payment | **date** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field**  **Name** | **Data Type** | **Description** | **Allowed**  **Values** | **Constraints** |
| RoomID | **Int** | identifier for **room** | Positive integers | **PK nut null** |
| HotalID | int | identifier for hotal | Positive integers | Fk |
| roomtype | nvarchar | The type of room | **String** |  |
| statues | nvarchar | The statues of room | **String** |  |
| pricePrnight | int | The price Pr night for the room | **String** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field**  **Name** | **Data Type** | **Description** | **Allowed**  **Values** | **Constraints** |
| Hhotelid | **int** | identifier for **hotal** | **integar** | **Pk nut null** |
| Name | navarvhaer | The name of the hotal | **string** |  |
| laocation | nvarchar | the laocation of the hotal | **String** |  |
| starRating | Int | The Rating by starss for the hotal | **Int from 0 ro 5** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field**  **Name** | **Data Type** | **Description** | **Allowed**  **Values** | **Constraints** |
| gestid | **int** | identifier for gust | **p integar** | **fk not null** |
| servsid | int | identifier for servsis | **P integar** | Fk |
| gestid  + gestid | int | identifier for servsis andgust | **P integar** | Pk not nulll |
|  |  |  |  |  |

**4. Database Schema**

create table Hotal (

Hotelid int primary key,

Name nvarchar(250),

laocation nvarchar(250),

starRating int ,

);

create table Room (

RoomID int primary key ,

HotalID int,

FOREIGN KEY (HotalID) REFERENCES Hotal(Hotelid),

roomtype nvarchar (250),

pricePrnight int,

statues nvarchar(250)

);

create table Guest

(

GuestID int primary key ,

fullname nvarchar(250),

Countactnumber nvarchar(250) ,

IDnumber nvarchar(250) ,

);

create table Booking (

Bookingid int primary key,

roomid int ,

guestid int ,

FOREIGN KEY (roomid) REFERENCES Room(RoomID),

FOREIGN KEY (guestid) REFERENCES Guest(GuestID),

CheachinDate date,

CheachoutDate date,

statues nvarchar(250)

);

create table Service (

Serviceid int primary key ,

ServiceName nvarchar(250),

Cost int,

)

create table invoice (

invoiceid int primary key,

Bookingid int,

FOREIGN KEY (Bookingid) REFERENCES Booking(Bookingid),

totalamount int,

PaymentDate date,

statues nvarchar(250),

);

create table GusetServeses

(

gestid int,

servsid int

FOREIGN KEY (servsid) REFERENCES Service(Serviceid),

FOREIGN KEY (gestid) REFERENCES Guest(GuestID),

primary key (gestid,servsid)

);

### Data Processing:

Data is processed through CRUD (Create, Read, Update, Delete) operations within the database to ensure accurate and timely information management.

### Data Storage:

All data is securely stored within the database, with regular backups implemented to prevent data loss.

**6. Security and Access Controls**

**User Roles and Privileges:**

* Admin: Full access to all system functionalities and data management.
* .

**Authentication:**

User authentication is required for access, with credentials as follows:

* Username: IT
* Password: IT123

**7. Backup and Recovery Procedures**

**Backup Procedures:**

Regular backups of the database are performed daily to prevent data loss.

**Recovery Procedures:**

In the event of data loss or corruption, recovery procedures are initiated to restore data from the latest backup.

**8. Contact Information**

**Database Administrators:**

* Admin: IT engineer responsible for system management and support.

**Support Contacts:**

* For technical issues, contact the database administrator at the hospital's IT support desk.

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**Good Luck**