

# DBMS MINIPROJECT

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G Section

PROJECT TITLE : Hospital Bed Slot Booking System

SRS

## 1. Introduction

- Purpose of the project:

The purpose of the Hospital Bed Slot Booking System is to provide an efficient and user- friendly platform for patients, healthcare providers, and administrators to manage and book hospital bed slots. This System intends to improve patient experience, shorten the process of allocating beds, and maximise the use of hospital bed resources.

- Scope of the project:

The scope of this project encompasses the development of a web-based platform that allows users to check bed availability, book bed slots, and manage their bookings. It will integrate with the hospital's existing information systems to ensure real-time bed availability updates and seamless communication between patients and hospital staff.

## 2. Project Description

- Project overview:

The Hospital Bed Slot Booking System is a digital solution designed to simplify the process of reserving and managing hospital bed slots. It will include features for

patients and administrators to access and update bed information, facilitating efficient resource allocation and improving patient care.

- Major project functionalities:

User Registration and Authentication: Users can create accounts using their Patient ID and log in securely.

Bed Availability Checking: Users can view real-time bed availability in different hospital wards.

Slot Booking: Patients can book bed slots based on availability and their medical needs. Booking Management: Users can modify or cancel their bed slot bookings as needed. Notifications: The system will send notifications to users regarding their bookings and bed availability updates.

Admin Dashboard: Hospital staff can manage bed data, view bookings, and make manual adjustments.

### **3. System Features and Functional Requirements**

- System Feature 1: User Registration and Authentication

Functional Requirement: Users must provide Patient ID , DOB and email ID to register. The system will validate and store user credentials securely. The login will require a valid Patient ID and DOB

- System Feature 2: Bed Availability Checking

Functional Requirement: The system will retrieve real-time bed availability data from hospital databases and display it to users. Availability data will be updated regularly.

- System Feature 3: Slot Booking

Functional Requirement: Patients can select a preferred bed slot based on availability, ward type, and medical requirements. Booking will require user confirmation and will be subject to availability.

- System Feature 4: Booking Management

Functional Requirement: Users can modify or cancel their bed slot bookings through the

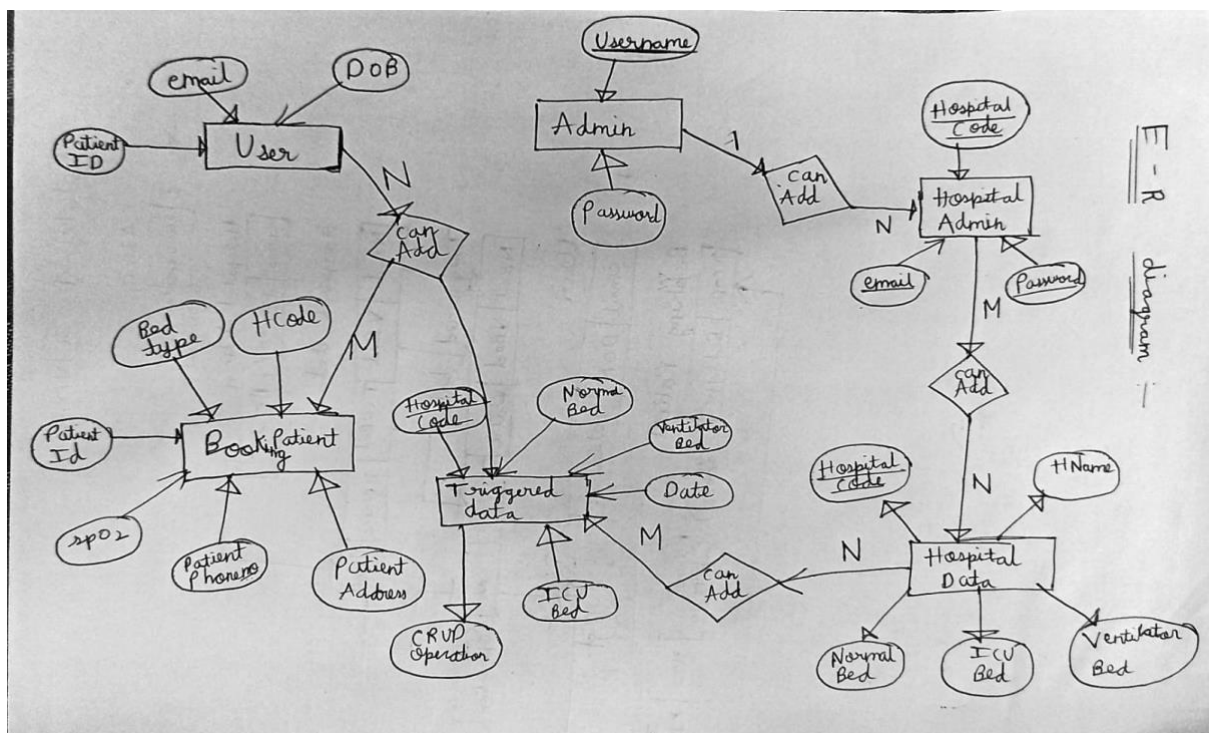
system. Cancellations should be subject to cancellation policies. • System Feature 5: Notifications

Functional Requirement: The system will send email or SMS notifications to users to confirm bookings, provide reminders, and inform them of any changes in bed availability.

- System Feature 6: Admin Dashboard

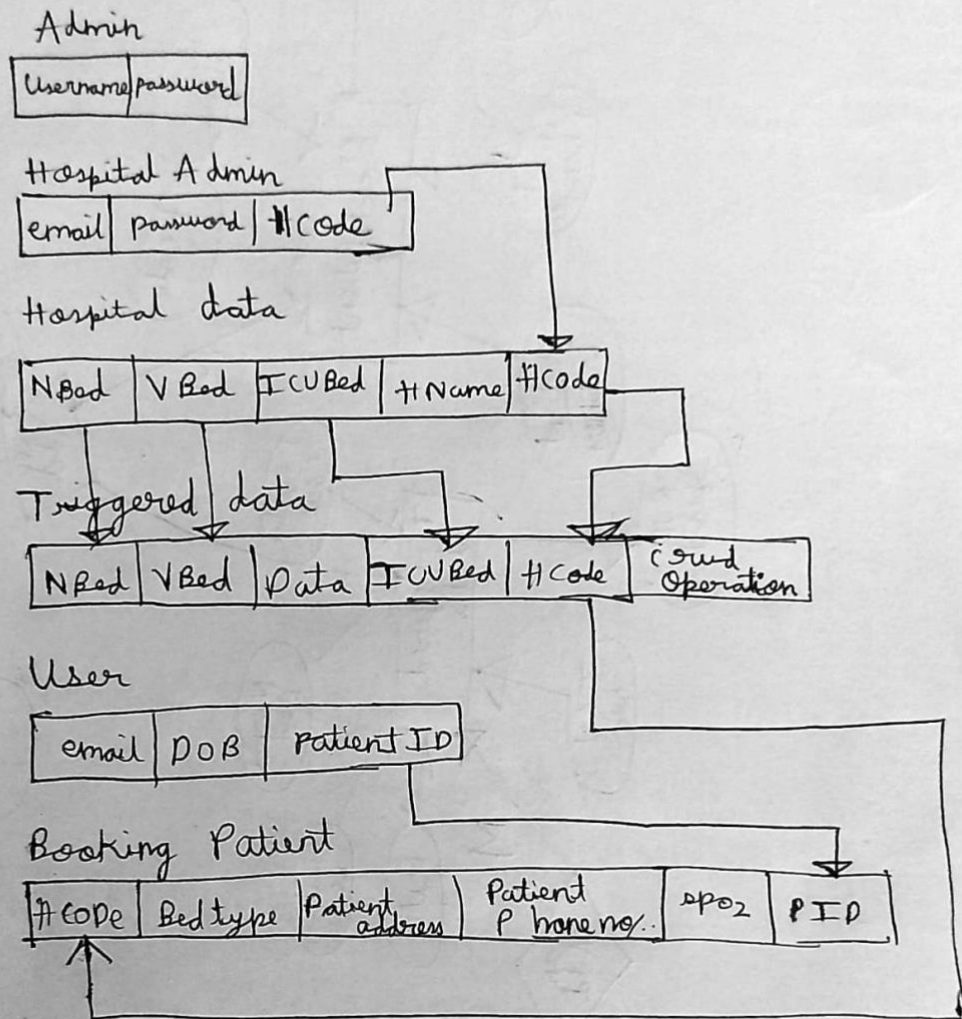
Functional Requirement: The Admin adds the Hospital administrators by sending a email containing Hospital admins credentials like Hospital Code, Password To access the particular Hospitals Data, Hospital administrators can access a secure dashboard to manage bed data, view bookings, manually assign beds, and update bed statuses.

## Entity Relationship Diagram



## Relational Schema

## Relational Schema



## Trigger definition (any one)

```
DELIMITER $$
CREATE TRIGGER `Insert` AFTER INSERT ON `hospitaldata` FOR EACH ROW INSERT
INTO trig
VALUES(null,NEW.hcode,NEW.normalbed,NEW.hicubed,NEW.icubed,NEW.vbed,'
INSERTED',NOW())
$$
DELIMITER ;
```

## Procedure definition:

```
DELIMITER $$
--
-- Procedures
--
CREATE DEFINER=`root`@`localhost` PROCEDURE `getPatientDetails` (IN `inp`
VARCHAR(50)) NO SQL
SELECT pname,pphone,srfid,bedtype,paddress FROM bookingpatient WHERE
hcode=inp$$

CREATE DEFINER=`root`@`localhost` PROCEDURE `getUsers` () NO SQL
SELECT * FROM user$$

DELIMITER ;
```

Queries – any 4 sample queries

Add the statement and the corresponding sql query and output screenshot

```
select * from hospitaluser;
```

```
mysql> select * from hospitaluser;
Empty set (0.01 sec)

mysql> select * from hospitaluser;
+-----+-----+-----+-----+
| id | hcode | email | password |
+-----+-----+-----+-----+
| 15 | HC0001 | nishanthrkashyap903@gmail.com | scrypt:32768:8:1$pkC3Mnn8cq0133fk$b20575b165e66527951f96357174ef229098f02177a342db8ab671a07e50e10af7d1f51a0257928e1f260e074fc08b5babfd9e82c93631dd9529c2e05ce692f6 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
select * from hospitaldata;
```

```
mysql> select * from hospitaldata;
+----+-----+-----+-----+-----+-----+
| id | hcode | hname   | normalbed | hicubed | icubed | vbed |
+----+-----+-----+-----+-----+-----+
| 3  | MAT123 | Matha Hospital | 40        | 4       | 4       | 1     |
+----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from hospitaldata;
+----+-----+-----+-----+-----+-----+
| id | hcode | hname   | normalbed | hicubed | icubed | vbed |
+----+-----+-----+-----+-----+-----+
| 3  | MAT123 | Matha Hospital | 40        | 4       | 4       | 1     |
| 7  | HC0001 | Apollo    | 50        | 40      | 20      | 30    |
+----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
select * from user;
```

```
mysql> select * from user;
Empty set (0.00 sec)

mysql> select * from user;
+----+-----+-----+-----+
| id | srfid | email                               | dob      |
+----+-----+-----+-----+
| 13 | PA0001 | nithinrkashyap0309@gmail.com      | 2001-01-01 |
+----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
select * from bookingpatient;
```

```
mysql> select * from bookingpatient;
+----+-----+-----+-----+-----+-----+-----+
| id | srfid | bedtype | hcode | spo2 | pname | pphone | paddress |
+----+-----+-----+-----+-----+-----+-----+
| 7  | PA0001 | NormalBed | HC0001 | 60   | nishanth | 8973243243 | bangalore |
+----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
select * from trig;
```

```
mysql> select * from trig;
+----+-----+-----+-----+-----+-----+-----+
| id | hcode | normalbed | hicubed | icubed | vbed | querys | date      |
+----+-----+-----+-----+-----+-----+-----+
| 15 | HC0001 | 50        | 40      | 20     | 30   | INSERTED | 2023-11-30 |
| 16 | HC0001 | 49        | 40      | 20     | 30   | UPDATED  | 2023-11-30 |
+----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```