Hospital Management System

Hospital Management System is used to manage all the hospital operations. We can perform operations such as we can add patients, assign doctor to patient, view patient details, view doctor details, add staff, view staff, assign bed to patients, view bill and payments.

My Project Includes two members

1.Aayush Kumar

2.Saurabh Ojha

Saurabh will work on Patients and Doctor Entity

Aayush will work on Staff,Bill and Payment Entity

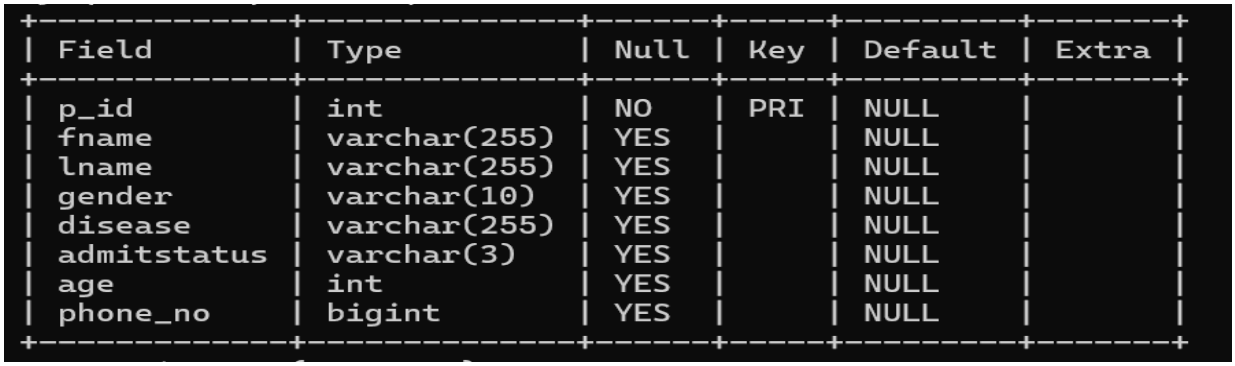
The Hospital Management include 5 entites :-

- Patients
- Doctors
- Staff
- Bills
- Payments

Patients

- **Attribues**
    1. p_id (Primary Key)
    2. fname
    3. lname
    4. gender
    5. disease
    6. admitstatus
    7. age
    8. phone_no
- **Relationship**
    1. Each patient can have only one billing record, and each billing record is associated with exactly one patient. (One-to-One)

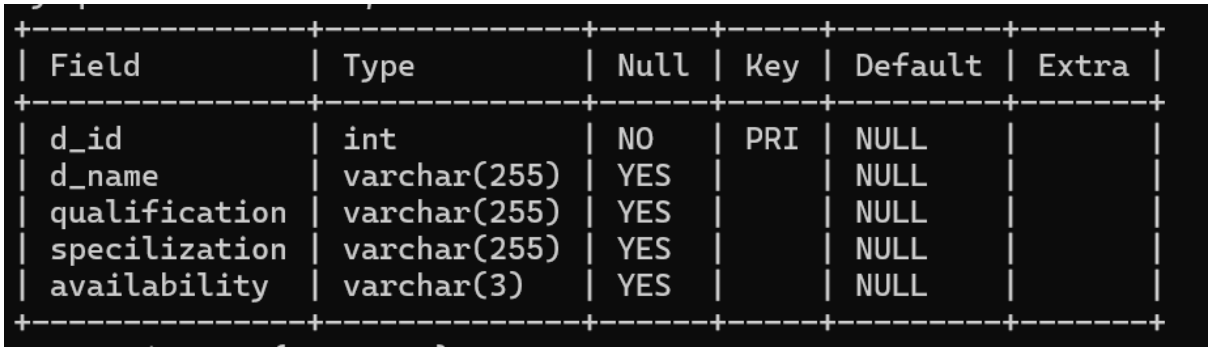
2. Each patient can have multiple payment records, but each payment record is associated with exactly one patient.(One-to-Many)



Field	Type	Null	Key	Default	Extra
p_id	int	NO	PRI	NULL	
fname	varchar(255)	YES		NULL	
lname	varchar(255)	YES		NULL	
gender	varchar(10)	YES		NULL	
disease	varchar(255)	YES		NULL	
admitstatus	varchar(3)	YES		NULL	
age	int	YES		NULL	
phone_no	bigint	YES		NULL	

Doctors

- **Attribues**
    1. d_id (Primary Key)
    2. d_name
    3. qualification
    4. specilization
    5. availability
- **Relationship**
    1. A doctor can be assigned to multiple patients, and a patient can be attended by multiple doctors. This relationship is represented by the doctors and patients tables.(Many-to-Many)



Field	Type	Null	Key	Default	Extra
d_id	int	NO	PRI	NULL	
d_name	varchar(255)	YES		NULL	
qualification	varchar(255)	YES		NULL	
specilization	varchar(255)	YES		NULL	
availability	varchar(3)	YES		NULL	

Staff

- **Attribues**
    1. s_id (Primary Key)
    2. fname
    3. lname

4. gender
5. designation
6. age
7. salary

- **Relationship**
    1. Staff members (like nurses or administrators) can be associated with multiple patients, and a patient can interact with multiple staff members. This relationship is represented by the staff and patients tables.(Many-to-Many)
    2. A staff member can work with multiple doctors, and a doctor can have interactions with multiple staff members.(Many-to-Many)

Field	Type	Null	Key	Default	Extra
s_id	int	NO	PRI	NULL	
fname	varchar(255)	YES		NULL	
lname	varchar(255)	YES		NULL	
gender	varchar(1)	YES		NULL	
designation	varchar(255)	YES		NULL	
age	int	YES		NULL	
salary	int	YES		NULL	

Bills

- **Attribues**
    1. b_id(Primary Key)
    2. basicCharges
    3. additionalCharges
    4. medicationCharges
    5. roomCharges
    6. doctorFees
    7. totalCharges
    8. patient_id(Foreign Key)
- **Relationship**
    1. Each billing record is associated with a staff member who handles the billing process. This relationship ensures that a billing record has a responsible staff member.(One-to-One)

Field	Type	Null	Key	Default	Extra
b_id	int	NO	PRI	NULL	
basicCharges	double	YES		NULL	
additionalCharges	double	YES		NULL	
medicationCharges	double	YES		NULL	
roomCharges	double	YES		NULL	
doctorFees	double	YES		NULL	
totalCharges	double	YES		NULL	
patient_id	int	YES	MUL	NULL	

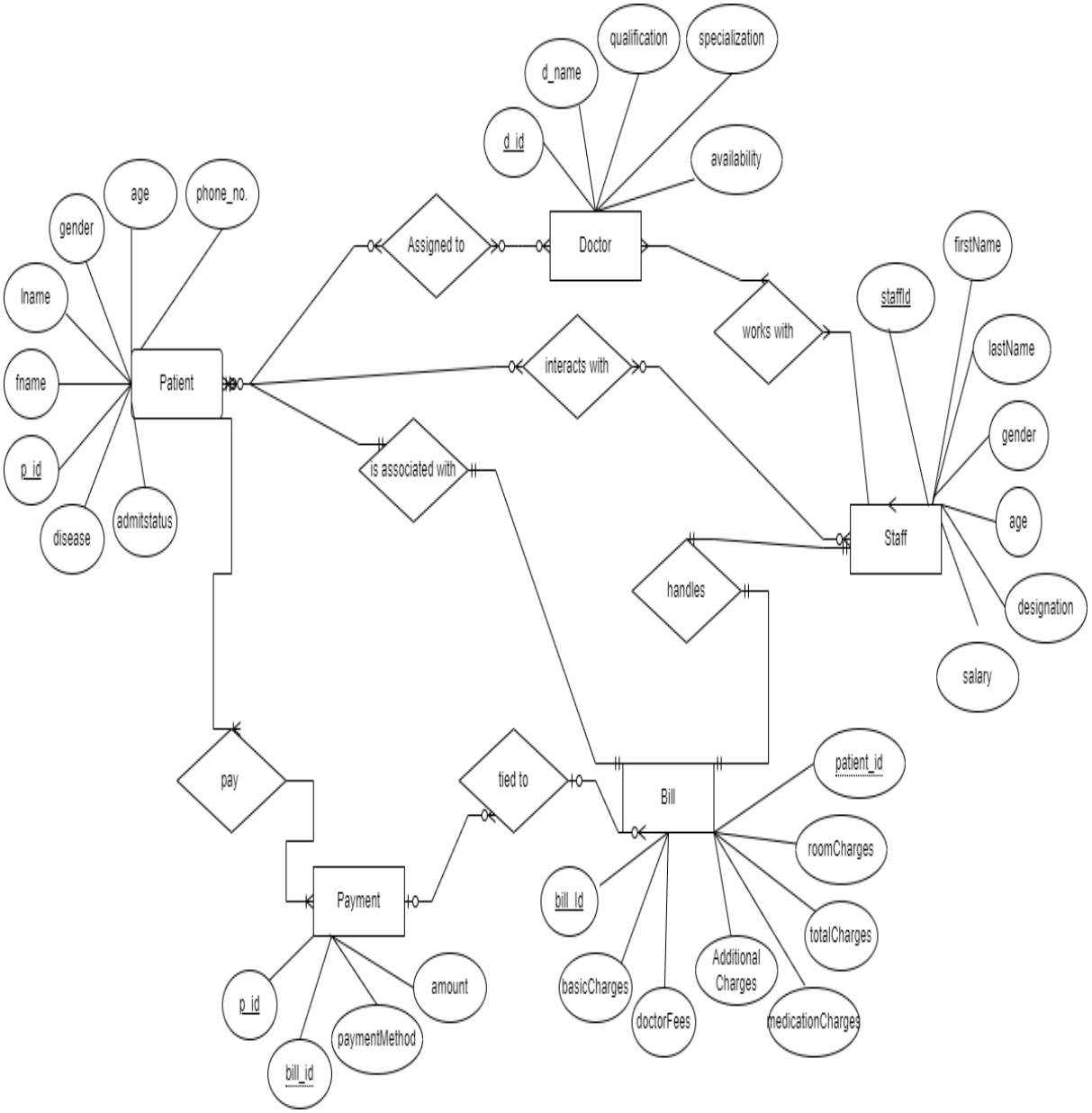
Payments

- **Attributes**
    1. p_id (Primary Key)
    2. bill_id (Foreign Key)
    3. paymentMethod
    4. amount
- **Relationship**
    a. many payment records is tied with one record in the Billis table.(Many- to-One)

```
mysql> desc payments;
```

Field	Type	Null	Key	Default	Extra
pay_id	int	NO	PRI	NULL	
paymentMethod	varchar(20)	YES		NULL	
amount	double	YES		NULL	
bill_id	int	YES	MUL	NULL	

ER Diagram


qualification
specialization
d_name
d_id
availability
age
phone_no.
gender
Assigned to
Doctor
firstName
staffId
lname
works with
lastName
fname
Patient
interacts with
gender
p_id
is associated with
age
disease
admitstatus
Staff
handles
designation
salary
pay
tied to
Bill
patient_id
roomCharges
Payment
bill_Id
totalCharges
Additional Charges
basicCharges
amount
p_id
doctorFees
medicationCharges
paymentMethod
bill_id