

# A SQL Project on Hospital Management System

ΤΑΙΣΤΑΓΘΕΠΕΠΕ ΕΛΞΙΕΠΠ

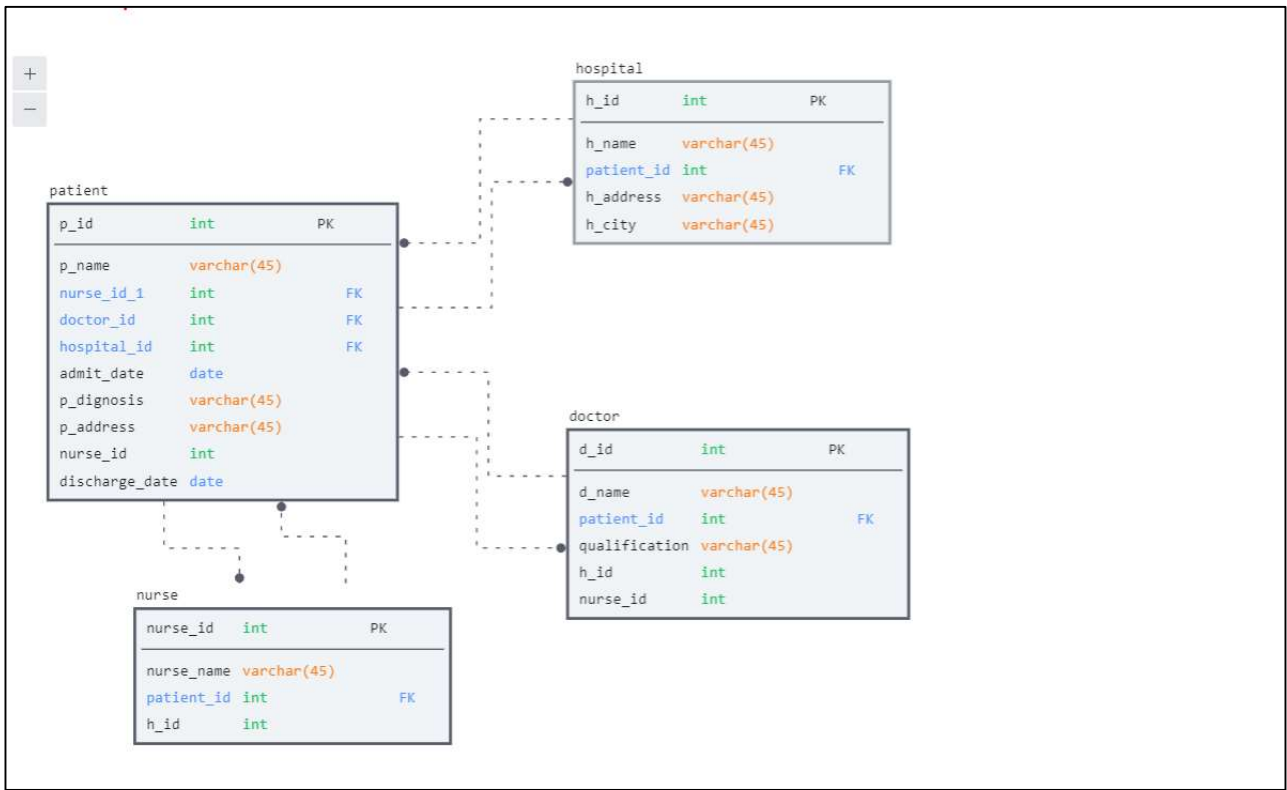
## **Abstract :-**

This project Hospital Management system includes registration of patients, storing their details into the system. The software has the facility to give a unique id for every patient and stores the clinical details of every patient and hospital tests done automatically. It includes a search facility to know the current status of each patient. User can search details of a patient using the id. The Hospital Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

## **Objective : -**

1. The Hospital will be able to easily track the details of patients, employees, and other staff of the hospital.
2. It will give a proper relation regarding which staff are working in which patients.
3. It will give details regarding how many raw staffs are being allocated to each patient.
4. It will help in tracking the patients, doctors and other staffs linked to each hospital or patients etc.

# E-R Diagram for Hospital Management system –



1.

### A- Creating table to store the details of the Patient -

```
MariaDB [project]> create table patient(p_id int primary key, p_name varchar(20),admit_date date,p_dignosis varchar(40),p_address varchar(20),hosptial_id int,doctor_id int,nurse_id int);
```

```
Query OK, 0 rows affected (0.039 sec)
```

```
MariaDB [project]> desc patient;
```

Field	Type	Null	Key	Default	Extra
p_id	int(11)	NO	PRI	NULL	
p_name	varchar(20)	YES		NULL	
admit_date	date	YES		NULL	
p_dignosis	varchar(40)	YES		NULL	
p_address	varchar(20)	YES		NULL	
hosptial_id	int(11)	YES		NULL	
doctor_id	int(11)	YES		NULL	
nurse_id	int(11)	YES		NULL	

```
8 rows in set (0.025 sec)
```

```
2 rows in set (0.052 sec)
```

Field	Type	Null	Key	Default	Extra
unl26_id	int(11)	YES		NULL	
doctor_id	int(11)	YES		NULL	
unl26_id	int(11)	YES		NULL	

### B- Inserting data of each patient in the patient table.

```
MariaDB [project]> select * from patient;
```

p_id	p_name	admit_date	p_dignosis	p_address	hosptial_id	doctor_id	nurse_id
5001	uttam	2022-01-11	kidney	karjat	1001	2001	3001
5002	kunal	2022-01-12	Septicemia	badlapur	1002	2002	3002
5003	prem	2022-01-13	Heart failure	ambarnath	1003	2003	3003
5004	suchit	2022-01-14	Osteoarthritis	borivali	1004	2004	3004
5005	vaibhav	2022-01-14	Pneumonia	ghansoli	1005	2005	3005

```
5 rows in set (0.037 sec)
```

```
2 rows in set (0.031 sec)
```

Field	Type	Null	Key	Default	Extra
unl26_id	int(11)	YES		NULL	
doctor_id	int(11)	YES		NULL	
unl26_id	int(11)	YES		NULL	

2.

### A - Creating table to store the details of Hospital

```
MariaDB [project]> create table hospital(h_id int,h_name varchar(20),h_address varchar(20),h_city varchar(20));
Query OK, 0 rows affected (0.034 sec)
```

```
MariaDB [project]> desc hospital
-> ;
```

Field	Type	Null	Key	Default	Extra
h_id	int(11)	YES		NULL	
h_name	varchar(20)	YES		NULL	
h_address	varchar(20)	YES		NULL	
h_city	varchar(20)	YES		NULL	

4 rows in set (0.026 sec)

```
4 rows in set (0.026 sec)
```

Field	Type	Null	Key	Default	Extra
h_id	int(11)	YES		NULL	
h_name	varchar(20)	YES		NULL	
h_address	varchar(20)	YES		NULL	
h_city	varchar(20)	YES		NULL	

### B- Inserting data in the Hospital table

```
MariaDB [project]> insert into hospital values(1002,"Metro hospital","manpadathane","thane"),(1003,"Titan hospital","manpada hospital","thane"),(1004,"tata hospital","dader","mumbai"),(1005,"jupiter hospital","bandra","mumbai");
Query OK, 4 rows affected (0.016 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

```
MariaDB [project]> select * from hospital;
```

h_id	h_name	h_address	h_city
1001	vedant hospital	owala thane	thane
1002	Metro hospital	manpada thane	thane
1003	Titan hospital	manpada hospital	thane
1004	tata hospital	dader	mumbai
1005	jupiter hospital	bandra	mumbai

h_id	h_name	h_address	h_city
1002	vedant hospital	owala thane	thane
1004	Metro hospital	manpada thane	thane
1003	Titan hospital	manpada hospital	thane

3.

#### A - Creating table to store the details of Doctor

```
MariaDB [project]> create table doctor(d_id int,d_name varchar(20),qualification varchar(20),h_id int,nurse_id int);
Query OK, 0 rows affected (0.032 sec)
```

```
MariaDB [project]> desc doctor
-> ;
```

Field	Type	Null	Key	Default	Extra
d_id	int(11)	YES		NULL	
d_name	varchar(20)	YES		NULL	
qualification	varchar(20)	YES		NULL	
h_id	int(11)	YES		NULL	
nurse_id	int(11)	YES		NULL	

rows in set (0.026 sec)

```
2 2022-10-26T10:00:00.000Z
```

Field	Type	Null	Key	Default	Extra
d_id	int(11)	YES		NULL	
d_name	varchar(20)	YES		NULL	

#### B- Inserting data in the Doctor table

```
MariaDB [project]> insert into doctor values(2002,"dr.vikas sinha","mbbs",1002,3002),(2003,"dr.kritika shetty","bms",1003,3003),(2004,"dr.yash tandon","gynologist",1004,3004),(2005,"dr.aarohi tiwari","dentist",1005,3005);
Query OK, 4 rows affected (0.013 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

```
MariaDB [project]> select * from doctor;
```

d_id	d_name	qualification	h_id	nurse_id
2001	amin shah	ms.md	1001	3001
2002	dr.vikas sinha	mbbs	1002	3002
2003	dr.kritika shetty	bms	1003	3003
2004	dr.yash tandon	gynologist	1004	3004
2005	dr.aarohi tiwari	dentist	1005	3005

5 rows in set (0.000 sec)

```
2 2022-10-26T10:00:00.000Z
```

d_id	d_name	qualification	h_id	nurse_id
2002	dr.vikas sinha	mbbs	1002	3002
2003	dr.kritika shetty	bms	1003	3003

4.

#### A - Creating table to store the details of Nurse

```
MariaDB [project]> create table nurse(nurse_id int, nurse_name varchar(20),h_id int)
Query OK, 0 rows affected (0.033 sec)
```

```
MariaDB [project]> desc nurse
-> ;
```

Field	Type	Null	Key	Default	Extra
nurse_id	int(11)	YES		NULL	
nurse_name	varchar(20)	YES		NULL	
h_id	int(11)	YES		NULL	

rows in set (0.033 sec)

#### B- Inserting data in the Nurse table

```
MariaDB [project]> insert into nurse values(3001,"vibha",1001),(3002,"vinita",1002),(3003,"va
mika",1003),(3004,"aakriti",1004),(3005,"samridhi",1005);
Query OK, 5 rows affected (0.013 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
MariaDB [project]> select * from nurse;
```

nurse_id	nurse_name	h_id
3001	vibha	1001
3002	vinita	1002
3003	vamika	1003
3004	aakriti	1004
3005	samridhi	1005

rows in set (0.001 sec)



1. Alter table query is used to add more column in the patient column.

```
MariaDB [project]> alter table patient add column discharge_date date;
Query OK, 0 rows affected (0.022 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [project]> desc patient;
```

Field	Type	Null	Key	Default	Extra
p_id	int(11)	NO	PRI	NULL	
p_name	varchar(20)	YES		NULL	
admit_date	date	YES		NULL	
p_dignosis	varchar(40)	YES		NULL	
p_address	varchar(20)	YES		NULL	
hosptial_id	int(11)	YES		NULL	
doctor_id	int(11)	YES		NULL	
nurse_id	int(11)	YES		NULL	
discharge_date	date	YES		NULL	

```
5 rows in set (0.026 sec)
```

```
1. LOM2 IN 26f (0.050 sec)
```

q1scm9L86-q9f6	q9f6	AE2		W0FF	
unL26-1q	10f(11)	AE2		W0FF	
qocf0L-1q	10f(11)	AE2		W0FF	

2. Update table Query to update the data on new table created.

```
MariaDB [project]> update patient
-> set discharge_date=case p_id
-> when 5002 then "2022-01-24"
-> when 5003 then "2022-01-25"
-> when 5005 then "2022-01-26"
-> when 5004 then "2022-01-28"
-> end;
```

```
Query OK, 5 rows affected (0.013 sec)
Rows matched: 5 Changed: 5 Warnings: 0
```

```
MariaDB [project]> select * from patient;
```

p_id	p_name	admit_date	p_dignosis	p_address	hosptial_id	doctor_id	nurse_id	discharge_date
5001	uttam	2022-01-11	kidney	karjat	1001	2001	3001	NULL
5002	kunal	2022-01-12	Septicemia	badlapur	1002	2002	3002	2022-01-24
5003	prem	2022-01-13	Heart failure	ambarnath	1003	2003	3003	2022-01-25
5004	suchit	2022-01-14	Osteoarthritis	borivali	1004	2004	3004	2022-01-28
5005	vaibhav	2022-01-14	Pneumonia	ghansoli	1005	2005	3005	2022-01-26

```
5 rows in set (0.001 sec)
```

```
1. LOM2 IN 26f (0.001 sec)
```

2002	A91p9A	5055-01-14	6u8m0u19	8pau2011	1002	5002	3002	5055-01-20
2004	8u811f	5055-01-14	0p1609L1p11C12	p0L1A911	1004	5004	3004	5055-01-28
2003	6L0A	5055-01-13	u83-L1A1110L6	8p0L0L1111	1003	5003	3003	5055-01-25



### 3. Modifying Query to add primary key to the existing column.

```
MariaDB [project]> alter table hospital modify h_id int primary key;
Query OK, 0 rows affected (0.055 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [project]> alter table doctor modify d_id int primary key;
Query OK, 0 rows affected (0.110 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [project]> alter table nurse modify nurse_id int primart key;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that correspond
to your MariaDB server version for the right syntax to use near 'key' at line 1
MariaDB [project]> alter table nurse modify nurse_id int primary key;
Query OK, 0 rows affected (0.085 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

#### After modifying

```
MariaDB [project]> desc hospital
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| h_id  | int(11) | NO | PRI | NULL | |
| h_name | varchar(20) | YES | | NULL | |
| h_address | varchar(20) | YES | | NULL | |
| h_city | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.021 sec)

MariaDB [project]> desc nurse;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nurse_id | int(11) | NO | PRI | NULL | |
| nurse_name | varchar(20) | YES | | NULL | |
| h_id | int(11) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.019 sec)

MariaDB [project]> desc doctor;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| d_id | int(11) | NO | PRI | NULL | |
| d_name | varchar(20) | YES | | NULL | |
| qualification | varchar(20) | YES | | NULL | |
| h_id | int(11) | YES | | NULL | |
| nurse_id | int(11) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.029 sec)
```

```

+-----+-----+-----+-----+-----+-----+
| nurse_id | int(11) | YES | | NULL | |
| d_id | int(11) | YES | | NULL | |
| qualification | varchar(20) | YES | | NULL | |
| h_id | int(11) | YES | | NULL | |
| nurse_id | int(11) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.030 sec)
```

4. Limit query to show the data up to specified limit.

```
MariaDB [project]> select * from hospital limit 3;
```

h_id	h_name	h_address	h_city
1001	vedant hospital	owala thane	thane
1002	Metro hospital	manpada thane	thane
1003	Titan hospital	manpada hospital	thane

3 rows in set (0.001 sec)

5. Inner Join query to get the details in single column if specified condition is matched.

```
MariaDB [project]> select patient.p_id,patient.p_name,doctor.d_id,doctor.d_name  
-> from patient  
-> inner join doctor  
-> on patient.doctor_id=doctor.d_id;
```

p_id	p_name	d_id	d_name
5001	uttam	2001	amin shah
5002	kunal	2002	dr.vikas sinha
5003	prem	2003	dr.kritika shetty
5004	suchit	2004	dr.yash tandon
5005	vaibhav	2005	dr.aarohi tiwari

5 rows in set (0.012 sec)

5. Right Join query to get the details in single column if specified condition is matched.

```
MariaDB [project]> select hospital.h_id,hospital.h_name,nurse.nurse_id,nurse.nurse_name
-> from hospital
-> right join nurse
-> on hospital.h_id=nurse.h_id;
```

h_id	h_name	nurse_id	nurse_name
1001	vedant hospital	3001	vibha
1002	Metro hospital	3002	vinita
1003	Titan hospital	3003	vamika
1004	tata hospital	3004	aakriti
1005	jupiter hospital	3005	samridhi

5 rows in set (0.001 sec)

```
2 rows in set (0.001 sec)
```

h_id	h_name	nurse_id	nurse_name
1002	metro hospital	3002	vinita
1004	tata hospital	3004	aakriti

6. Sub query

```
MariaDB [project]> select * from nurse where h_id in(select h_id from patient where h_id=1004);
```

nurse_id	nurse_name	h_id
3004	aakriti	1004

1 row in set (0.012 sec)

```
1 row in set (0.013 sec)
```

7. Created table using view.

```
MariaDB [project]> create view hospitalview as select
-> doctor.d_id,doctor.d_name,doctor.qualification,hospital.h_name,hospital.h_address,hospital.h_city
-> from doctor,hospital where doctor.h_id=hospital.h_id;
```

Query OK, 0 rows affected (0.015 sec)

```
MariaDB [project]> select * from hospitalview;
```

d_id	d_name	qualification	h_name	h_address	h_city
2001	amin shah	ms.md	vedant hospital	owala thane	thane
2002	dr.vikas sinha	mbbs	Metro hospital	manpada thane	thane
2003	dr.kritika shetty	bms	Titan hospital	manpada hospital	thane
2004	dr.yash tandon	gynologist	tata hospital	dader	mumbai
2005	dr.aarohi tiwari	dentist	jupiter hospital	bandra	mumbai

5 rows in set (0.012 sec)

```
2 rows in set (0.013 sec)
```

d_id	d_name	qualification	h_name	h_address	h_city
2002	dr.vikas sinha	mbbs	metro hospital	manpada thane	thane
2003	dr.kritika shetty	bms	titan hospital	manpada hospital	thane