

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)



**Skills Based Project Report**  
**on**  
**Hospital Equipment Information**

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**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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## **CERTIFICATE**

This is certified that **Suraj Ojha** (0901CA211061) has submitted the project report titled **Hospital Equipment Information** under the mentorship of **Dr. Parul Saxena** (Assistant Professor) as the requirement of skill based mini project.



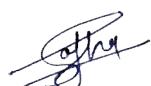
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Computer Science and Engineering

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## **DECLARATION**

I hereby declare that the work being presented in this project report, for the fulfilment of partial requirement of the skills based mini project in 1<sup>st</sup> year of Master of Computer Application in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Dr. Parul Saxena**, (Assistant Professor), MITS Gwalior.

I declare that I have not submitted the matter embodied in this report anywhere else.



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### **ACKNOWLEDGEMENT**

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## ABSTRACT

The **Hospital Equipment Information** is an application for giving the information about Hospital's medical equipment. The aim of this project is to provide the information about **Medical Equipment** of a particular hospital at anytime and anywhere. It helps the patient to know about the medical equipment of the hospital and the patient haven't need to visit in hospitals to know about the medical equipment physically, they can easily visit on the application and check the availability of equipments.

Patient can also know about the availability of the Hospital beds, Oxygen, and Ventilators etc. And can also search the Hospitals and their location and contact as well as. It helps to save the time and life both.

## **Introduction**

I have made this application keeping in mind the epidemic like covid. Sometimes hospital are not available to take patients as their all hospital beds are full and in that case people need to roam around to find the hospital also in case of emergency situations. This is time consuming, risky, and costly. This system is a solution designed specifically for users who want to take hospital beds and Ventilators etc.

Peoples can check occupied and availability of the Hospital beds and ventilators. They search all the small and big hospitals in their city.

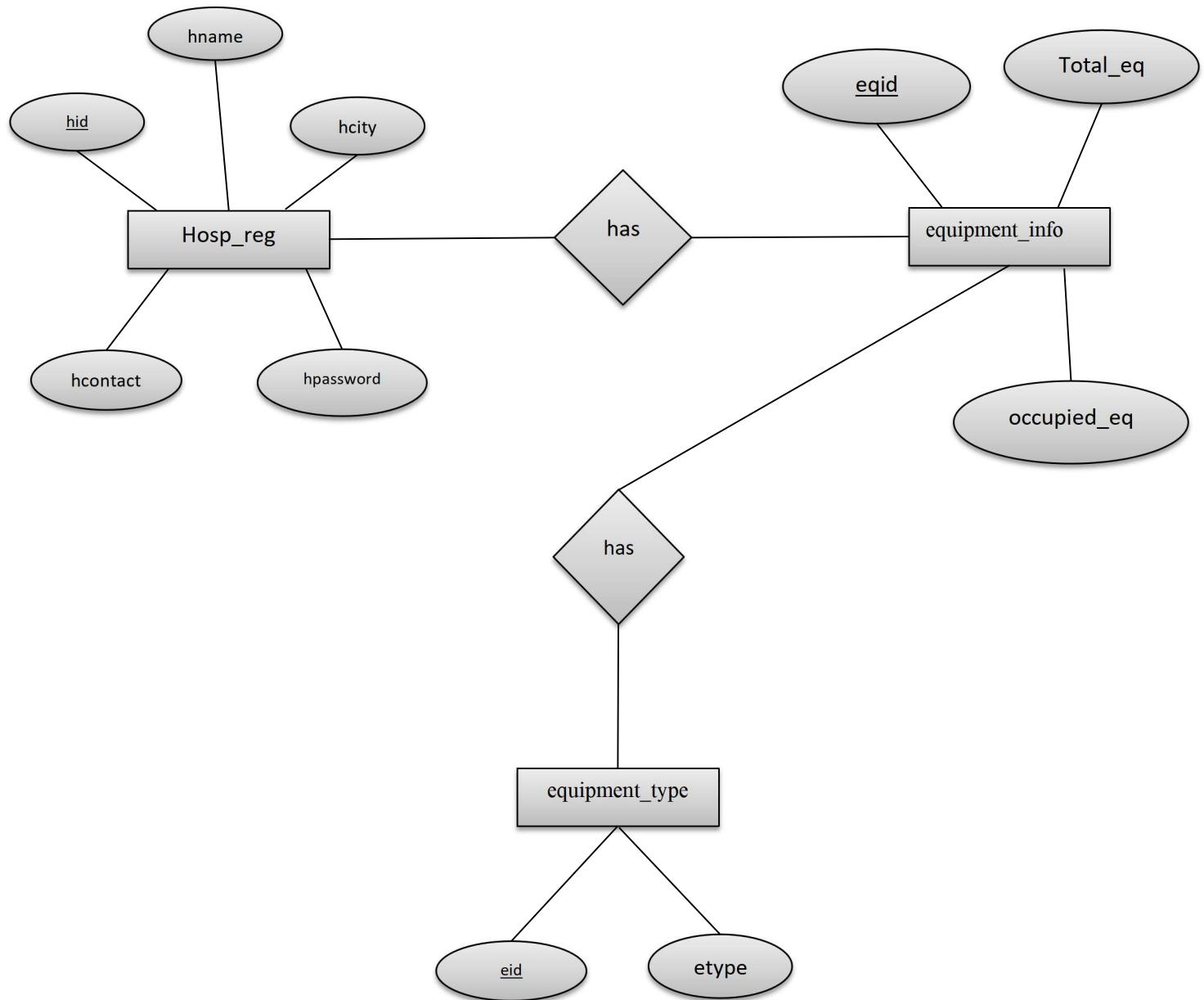
All the information about Hospitals medical equipment is stored in Database, Here DBMS comes in and manage all the updated data related to Medical Equipment of the hospital.

## Objective

Suppose someone needs beds, then they have to go to the hospital first and waits until the bed is available. If the hospital cancels the booking of bed due to lack of availability then the patient is not able to know about the cancellation of the appointment unless or until he or she visits the hospitals. But now they do not need to go to the hospital to know about the availability of hospital beds or Ventilators. They can easily visit on our application and check the availability of equipments. It's save the time and cost and reduce risk as well as.

Our application Holds the updated information data about all hospital. And we don't need to visit hospital individually to collect data, Hospital have to register on our application and upload the updated data their own.

## E-R Diagram



## Table Description

### **hosp\_reg**

```
MariaDB [hospital]> desc hosp_reg;
+-----+-----+-----+-----+-----+-----+
| Field | Type  | Null | Key  | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| hid   | int(11) | NO   | PRI  | NULL    | auto_increment |
| hname | varchar(30) | NO  |      | NULL    | |
| hcontact | bigint(20) | NO  |      | NULL    | |
| hpassword | varchar(30) | NO  |      | NULL    | |
| hcity  | varchar(20) | NO  |      | NULL    | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.017 sec)
```

### **equipment\_info**

```
MariaDB [hospital]> desc equipment_info;
+-----+-----+-----+-----+-----+
| Field | Type  | Null | Key  | Default | Extra |
+-----+-----+-----+-----+-----+
| eqid  | int(11) | NO   | PRI  | NULL    | auto_increment |
| eid   | int(11) | NO   |      | NULL    | |
| hid   | int(11) | NO   |      | NULL    | |
| total_eq | int(11) | NO   |      | NULL    | |
| occupied_eq | int(11) | NO   |      | NULL    | |
+-----+-----+-----+-----+-----+
5 rows in set (0.014 sec)
```

## **equipment\_type**

```
MariaDB [hospital]> desc equipment_type;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra
+-----+-----+-----+-----+-----+
| eid   | int(11)   | NO   | PRI | NULL    | auto_increment
| etype  | varchar(20) | NO   |     | NULL    |
+-----+-----+-----+-----+
2 rows in set (0.016 sec)
```

## Sample Queries

Q.1 To find out all the Hospitals name city wise.

Ans. select hname, hcontact, hcity from hosp\_reg group by hcity;

```
MariaDB [hospital]> select hname,hcontact,hcity from hosp_reg group by hcity;
+-----+-----+-----+
| hname      | hcontact | hcity   |
+-----+-----+-----+
| Apollo Hospital | 898765432 | Delhi   |
| Rims Hospital   | 987654321 | Gwalior |
+-----+-----+-----+
2 rows in set (0.001 sec)
```

Q. 2 To find out all hospital located in ‘Gwalior’ city.

Ans. select hname, hcontact, hcity from hosp\_reg where hcity = ‘Gwalior’;

```
MariaDB [hospital]> select hname,hcontact,hcity from hosp_reg where hcity='Gwalior';
+-----+-----+-----+
| hname      | hcontact | hcity   |
+-----+-----+-----+
| Rims Hospital | 987654321 | Gwalior |
+-----+-----+-----+
1 row in set (0.001 sec)
```

Q.3 To find out hospital name which have ‘Ventilator’.

Ans. select hname, hcontact, hcity from hosp\_reg natural join equipment\_type natural join equipment\_info where etype = ‘Ventilator’;

```
MariaDB [hospital]> select hname,hcontact,hcity,etype,total_eq,occupied_eq from hosp_reg natural join equipment_type natural join equipment_info where etype
='Ventilator';
+-----+-----+-----+-----+-----+-----+
| hname      | hcontact | hcity   | etype    | total_eq | occupied_eq |
+-----+-----+-----+-----+-----+-----+
| Apollo Hospital | 898765432 | Delhi   | Ventilator |      500 |        344 |
| Rims Hospital   | 987654321 | Gwalior | Ventilator |       30 |        13 |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.001 sec)
```

Q.4 To find out availability of ‘normal beds’ in Apollo Hospital.

Ans. select hname, hcontact, hcity, total\_eq as total\_beds, occupied\_eq as occupied, total\_eq - occupied\_eq as available\_beds from hosp\_reg natural join equipment\_type natural join equipment\_info where etype = ‘normal beds’ and hname = ‘Apollo Hospital’;

```
MariaDB [hospital]> select hname,hcontact,hcity,etype,total_eq as total_beds,occupied_eq as occupied, total_eq - occupied_eq as available_beds from hosp_reg
 natural join equipment_type natural join equipment_info where etype='normal beds' and hname = 'Apollo Hospital';
+-----+-----+-----+-----+-----+-----+-----+
| hname | hcontact | hcity | etype | total_beds | occupied | available_beds |
+-----+-----+-----+-----+-----+-----+-----+
| Apollo Hospital | 898765432 | Delhi | normal beds | 100 | 43 | 57 |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.001 sec)
```

Q.5 To find out all the medical equipments information about Hospital.

Ans. select hname, hcontact, hcity, total\_eq as total\_beds, occupied\_eq as occupied, total\_eq - occupied\_eq as available\_beds from hosp\_reg natural join equipment\_type natural join equipment\_info;

```
MariaDB [hospital]> select hname,hcontact,hcity,etype,total_eq as total_beds,occupied_eq as occupied, total_eq - occupied_eq as available_beds from hosp_reg
 natural join equipment_type natural join equipment_info;
+-----+-----+-----+-----+-----+-----+-----+
| hname | hcontact | hcity | etype | total_beds | occupied | available_beds |
+-----+-----+-----+-----+-----+-----+-----+
| Rims Hospital | 987654321 | Gwalior | normal beds | 100 | 59 | 41 |
| Apollo Hospital | 898765432 | Delhi | Ventilator | 500 | 344 | 156 |
| Rims Hospital | 987654321 | Gwalior | Ventilator | 30 | 13 | 17 |
| Apollo Hospital | 898765432 | Delhi | normal beds | 100 | 43 | 57 |
+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.001 sec)
```

## **Conclusion**

In this Project I have described all the functionalities and view of the project. This web based application can be helpful for the users in case of urgent Medical situation in Pandemic. The user can easily check the bed availability at their location without wasting their time, if any emergency situation arises. This has concluded all the important point regarding this project.

## Reference

1. [https://excise.wb.gov.in/CHMS/Public/Page/CHMS\\_Public\\_Hospital\\_Bed\\_Availability.aspx](https://excise.wb.gov.in/CHMS/Public/Page/CHMS_Public_Hospital_Bed_Availability.aspx)
2. <https://www.who.int>