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**Term Project**



Introduction to Database system

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blood bank management system

# “LADY READING HOSPITAL PESHAWAR”

CASE STUDY:

To create a database management system, we should first analysis the system about which we are going to deal. So that we will be able to make a database system which will well facilitate our client. Once our analysis of system is complete then we gather requirements from the system. After that we can create our mission statement that will clear our working on database management system. Mission statement will helps as to determine the aims of database system so that we can develop such a supportive database that can help client in every field related to our system.

“LADY READING HOSPITAL PESHAWAR”

The **Lady Reading Hospital** is located at [Peshawar](https://en.wikipedia.org/wiki/Peshawar) in the [Khyber Pakhtunkhwa](https://en.wikipedia.org/wiki/Khyber_Pakhtunkhwa) of [Pakistan](https://en.wikipedia.org/wiki/Pakistan). It is one of the most important post graduate medical institutes in Pakistan. It is named after [Lady Reading](https://en.wikipedia.org/wiki/Alice_Isaacs,_Marchioness_of_Reading), the wife of the [**Viceroy of India**](https://en.wikipedia.org/wiki/Viceroy_of_India)**,**[**Lord Reading**](https://en.wikipedia.org/wiki/Rufus_Isaacs,_1st_Marquess_of_Reading)**.** It is the biggest hospital of Khyber Pakhtunkhwa province, providing tertiary care facilities to the people. Famous Masjid Muhabat Khan, Ander Shehr bazaar, Qissa Khawani bazaar and Khyber bazaar is across the road of LRH. LRH is just outside historical wall in the jurisdiction of cantonment board. It has many information systems. Most of its systems are still manually operated. And these systems require to be computerized and helpful for the employees.

blood bank management system

For determining the mission statement of our system, first we should analysis that what the actual system is and how it works. So we need to understand the working and process of the system.

The blood bank of LADY READING HOSPITAL PESHAWAR was established in 2014. The working of the system can be described as the hospital which need a donor of blood or blood they contact with the blood bank manager and tells him/her about the blood group which is required. He/she then call their laboratory assistant which look after the laboratory stock and the blood types which are available. If the blood needed is not available in stock, then he/she reports to a clerk which then search in register for that specific type of blood group donor so that he can be contact to donate blood. The clerk checks out his name, blood type and last date at which he donated his blood. If the donor of that specific blood group is not found that clerk contacts with the other blood banks to get the blood group.

The manager of the blood bank has observed some mistakes which are being made by employees. This mistakes are as follow:

1. To save and secure large amount of data is difficult in files.
2. To search specific data in manual files.
3. Delay in providing information to other blood banks.
4. Manually entering the information in files.
5. Delay in informing the specific blood donator to donate blood.
6. Difficulty in managing employees and patients.

So the manager decided to computerized its system by developing a database management system. This database application will help in easy entering of data. It will also help manager to manage the data of employee, hospital, donor and other blood banks. This application will also help the clerk to find the specific blood group donor. This application may save thousands of lives.

# REQUIREMENT GATHERING

# QUESTIONS TO BE ASKED

## Questions to manager of blood bank:

Q. Why do you use database system?

Ans. To computerized our record from manual files.

Q. How your problem will be solved by database application?

Ans. This application will help me in managing the data of employee, hospital, donor and other blood banks.

Q. What kind of data do you require?

Ans. Employees data

Hospitals data

Blood banks data.

Q. What of data do you required while hiring a new employer?

* Name
* Father Name
* Address
* Education
* NIC number
* ’Phone number

Q. What type of security do you want for database application?

Ans. The security is not very necessary although the data is important, the data is to be accessed by three persons by manager, laboratory assistant and clerk.

## Questions to laboratory assistant of blood bank:

Q. what is your job?

Ans. My job is to test the blood group of donors and make record of it. And then I stored it bank.

Q. what kind of data do you required?

* Blood type
* Cost
* Date
* Importance

## Questions to clerk of blood bank:

Q. what is your job?

Ans. My job is to store data of donor and patient in my registers.

Q. What kind of data do you require about donor?

* Name
* Father name
* age
* Address
* Phone number
* Blood group
* Wish to donate more
* Sex

# MISSION STATEMENT:

**To manipulate, store, modify, delete and add data of employees, donors, receivers and hospitals in the form of computerized database systems.**

# Mission Objectives for the Inquiry Office Database Application

* To maintain (update, add, delete and search) data of donors.
* To maintain (update, add, delete and search) data of patients.
* To maintain (update, add, delete and search) data of employee.
* To maintain (update, add, delete and search) data of blood banks.
* To maintain (update, add, delete and search) data of blood.

# **CONCEPTUAL LEVEL**

**Blood bank System Definition**

System Boundary for the blood bank System of LRH database application.







# RELATIONSHIP BETWEEN ENTITIES:



# **ERD DIAGRAM**



PHYSICAL LEVEL

Create database Blood\_bank\_System

Create table HOSPITAL(

H\_ID int constraint pk1 primary key,

NAME varchar (10),

PHONE NUMBER int,

ADDRESS varchar (30)

)

Create table BLOOD\_BANKS(

B\_B\_ID int constraint pk2 primary key,

NAME varchar (10),

PHONE NUMBER double,

ADDRESS varchar (25)

)

Create table MANAGER(

NAME varchar (15),

FATHER\_NAME varchar (15)

E-mail varchar (15)

AGE int

PHONE\_NUMBER double

H\_ID int constraint fk1 foreign key reference HOSPITAL(H\_ID)

)

Create table EMPLOYEE(

E\_ID int constraint pk3 primary key,

NAME varchar (15),

FATHER\_NAME varchar (15),

AGE int,

ADDRESS varchar (25),

PHONE\_NUMBER double

POSITION varchar (8),

B\_B\_ID int constraint fk2 foreign key reference BLOOD\_BANK(B\_B\_ID)

)

Create table DONOR(

D\_ID int ,

NAME varchar (15),

FATHER\_NAME varchar (15),

BLOOD\_GROUP char,

ADDRESS varchar (25),

PHONE NUMBER double,

WISH\_TO\_DONATE\_AGAIN char,

Constraint pk7 primary key (D\_ID, BLOOD\_GROUP)

)

Create table PATIENT(

P\_ID int constraint pk5 primary key,

NAME varchar (15),

FATHER\_NAME varchar (15),

ADDRESS varchar (15),

GENDER char,

DISEASE varchar (20),

Constraint fk3 foreign key (D\_ID,BLOOD\_GROUP) references DONOR(D\_ID,BLOOD\_GROUP)

)

Create table BLOOD(

BLOOD\_GROUP char ,

COST float,

IMPORTANCE varchar (8)

Constraint fk4 foreign key (D\_ID,P\_ID) references DONOR(D\_ID),PATIENT(P\_ID)

)