1) Problem Statement
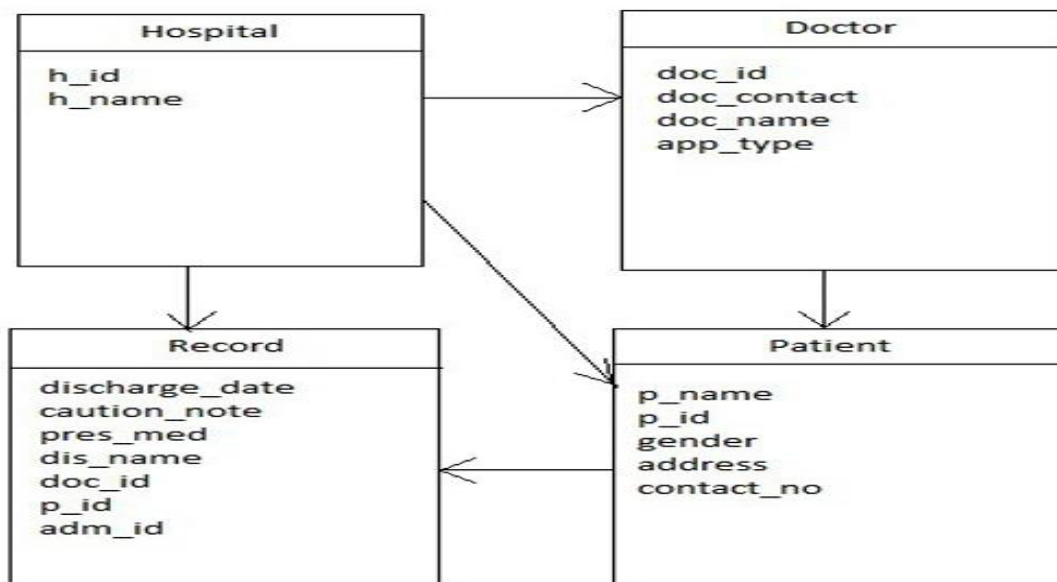
To build a common web based database system which needs to be used by all heathcare units (govt, pvt clinics and hospitals) in India for uniform patient data maintenance.

2) DDB design

EER DIAGRAM
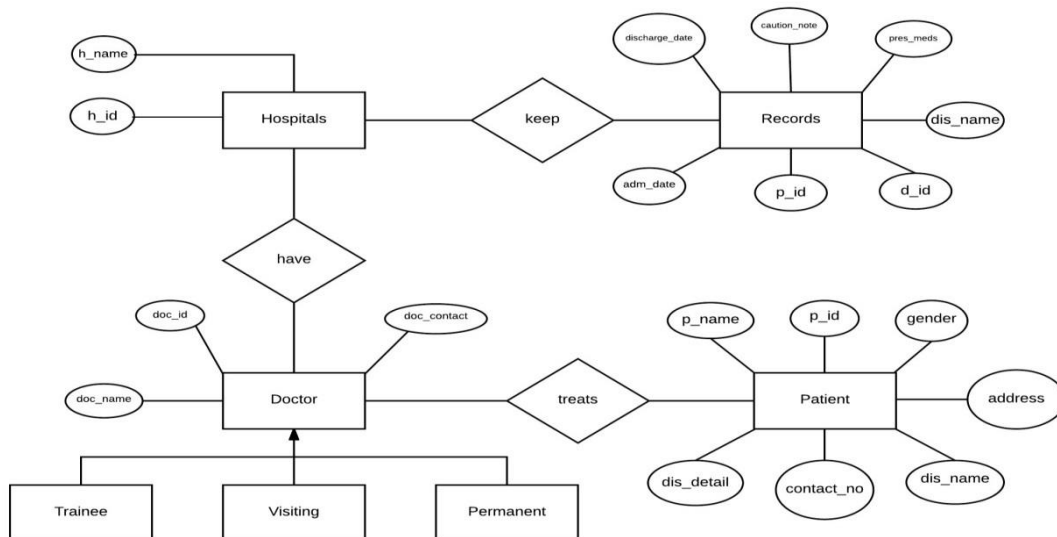
Global Schema for Universal Healthcare Database System

3) Add data, fragmentation and other tasks:

SQL*Plus: Release 11.2.0.1.0 Production on Sat Feb 18 14:30:35 2017

Copyright (c) 1982, 2010, Oracle. All rights reserved.

Enter user-name: d12c_b1@ddb_d12
Enter password:

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> show user
USER is "D12C_B1"
SQL> desc Doctor
```
 Name                          Null?   Type
 --------------------------------------- -------- --------------------------

 H_ID                     NOT NULL NUMBER(38)
 H_NAME                          VARCHAR2(20)
```

SQL> conn
Enter user-name: d12c_b18@ddb_d12
Enter password:
Connected.
SQL> create table Doctor1(h_id int primary key, h_name varchar(20));

Table created.

SQL> conn
Enter user-name: d12c_b24@ddb_d12
Enter password:
Connected.
SQL> create table Doctor2(h_id int primary key, h_name varchar(20));

Table created.

SQL> conn
Enter user-name: d12c_b1@ddb_d12
Enter password:
Connected.

SQL> create or replace trigger temp1 after insert on Doctor for each row begin i
nsert into Doctor1@P1link values (:new.h_id, :new.h_name); insert into Doctor2@D
link values (:new.h_id, :new.h_name);end;
  2 /

Trigger created.

SQL> insert into Doctor values(1,'Ankita');

1 row created.

SQL> insert into Doctor values(2,'Ankit');

1 row created.

SQL> select * from Doctor
  2 /

      H_ID H_NAME
---------- --------------------
         1 Ankita
         2 Ankit

SQL> select * from Doctor1@P1link
  2 /

      H_ID H_NAME
---------- --------------------
         1 Ankita
         2 Ankit

SQL> select * from Doctor2@Dlink
  2 /

      H_ID H_NAME
---------- --------------------
         1 Ankita
         2 Ankit

SQL>

DDB Exp 3 – Horizontal Fragmentation

Universal Healthcare Database

```
SQL Plus                                                          ☐  ⮸

SQL*Plus: Release 11.2.0.1.0 Production on Sat Feb 11 14:49:50 2017

Copyright (c) 1982, 2010, Oracle.  All rights reserved.

Enter user-name: d12c_b1@ddb_d12
Enter password:

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> show user
USER is "D12C_B1"
SQL> create table Patient(p_name varchar(20), p_id int primary key, gender char
(1), address varchar (50),contact_no varchar (10));

Table created.

SQL> desc Patient
 Name                                      Null?    Type
 ---------------------------------------- -------- -------------------------

 P_NAME                                             VARCHAR2(20)
 P_ID                                      NOT NULL NUMBER(38)
 GENDER                                             CHAR(1)
 ADDRESS                                            VARCHAR2(50)
 CONTACT_NO                                         VARCHAR2(10)

SQL> create public database link P1link connect to d12c_b18 identified by D12C_B
18 using 'ddb_d12';

Database link created.

SQL> create public database link Dlink connect to d12c_b24 identified by D12C_B2
4 using 'ddb_d12';

Database link created.

SQL> conn
Enter user-name: d12c_b18@ddb_d12
Enter password:
Connected.
SQL> create table Malep(p_name varchar(20), p_id int primary key, gender char (1
), address varchar (50), contact_no varchar (10));

Table created.

SQL> conn
Enter user-name: d12c_b24@ddb_d12
Enter password:
Connected.
SQL> create table Fenalep(p_name varchar(20), p_id int primary key, gender char
(1), address varchar (50), contact_no varchar (10));

Table created.
```

```
SQL> conn
Enter user-name: d12c_b1@ddb_d12
Enter password:
Connected.
SQL> create or replace trigger temp after insert on Patient for each row when(ne
w.gender is not null) begin if:new.gender='M' then insert into Malep@P1link valu
es(:new.p_name, :new.p_id, :new.gender, :new.address, :new.contact_no); else ins
ert into Femalep@Dlink values(:new.p_name, :new.p_id, :new.gender, :new.address,
 :new.contact_no); end if;end;
  2  /

Trigger created.

SQL> insert into Patient values('Ankita', 1, 'F', 'Chembur', '1234567890');

1 row created.

SQL> insert into Patient values('Ankit', 2, 'M', 'Kharghar', '2234567890');

1 row created.

SQL> select * from Patient
  2  /

P_NAME                        P_ID G
ADDRESS                                            CONTACT_NO
----------------------------- ---------- -
Ankita                           1 F
Chembur                                            1234567890

Ankit                            2 M
Kharghar                                           2234567890

SQL> select * from Malep@P1link
  2  /

P_NAME                        P_ID G
ADDRESS                                            CONTACT_NO
----------------------------- ---------- -
Ankit                            2 M
Kharghar                                           2234567890

SQL> select * from Femalep@Dlink
  2  /

P_NAME                        P_ID G
ADDRESS                                            CONTACT_NO
----------------------------- ---------- -
Ankita                           1 F
Chembur                                            1234567890
```

UHD : Vertical Fragmentation


```
SQL Plus

SQL*Plus: Release 11.2.0.1.0 Production on Sat Mar 4 13:38:21 2017

Copyright (c) 1982, 2010, Oracle.  All rights reserved.

Enter user-name: d12c_b1@ddb_d12
Enter password:

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> show user
USER is "D12C_B1"
SQL> desc Patient
 Name                                      Null?    Type
 ---------------------------------------- -------- ----------------

 P_NAME                                             VARCHAR2(20)
 P_ID                                      NOT NULL NUMBER(38)
 GENDER                                             CHAR(1)
 ADDRESS                                            VARCHAR2(50)
 CONTACT_NO                                         VARCHAR2(10)

SQL> conn
Enter user-name: d12c_b1@ddb_d12
Enter password:
Connected.
SQL> create table p_contact(p_id int primary key, address varchar (50), contact_
no varchar
  2
SQL> (10),p_name varchar(20));/
  2  /
(10),p_name varchar(20));/
   *
ERROR at line 1:
ORA-00928: missing SELECT keyword


SQL> create table p_contact(p_id int primary key, address varchar (50), contact_
no varchar (10),p_name varchar(20));

Table created.

SQL> conn
Enter user-name: d12c_b24@ddb_d12
Enter password:
Connected.
SQL> create table p_gender(p_id int primary key, gender char (1));

Table created.

SQL> conn
Enter user-name: d12c_b1@ddb_d12
Enter password:
Connected.
SQL> create or replace trigger temp after insert on Patient for each row begin i
nsert into p_contact@P1link values(:new.p_id,:new.address,:new.contact_no,:new.p
_name);insert into p_gender@Dlink values(:new.p_id,:new.gender);end;
  2  /

Trigger created.

SQL> insert into Patient values('Paresh', 3, 'M', 'Chembur', '9022298522');

1 row created.

SQL> insert into Patient values('Dinesh', 4, 'M', 'Tilaknagar', '9821798654');

1 row created.

SQL> select * from Patient
  2  /

P_NAME                           P_ID G
-------------------------------- ---------- -
ADDRESS                                                    CONTACT_NO
---------------------------------------------------------- ----------
Paresh                                 3 M
Chembur                                                    9022298522

Dinesh                                 4 M
Tilaknagar                                                 9821798654
```
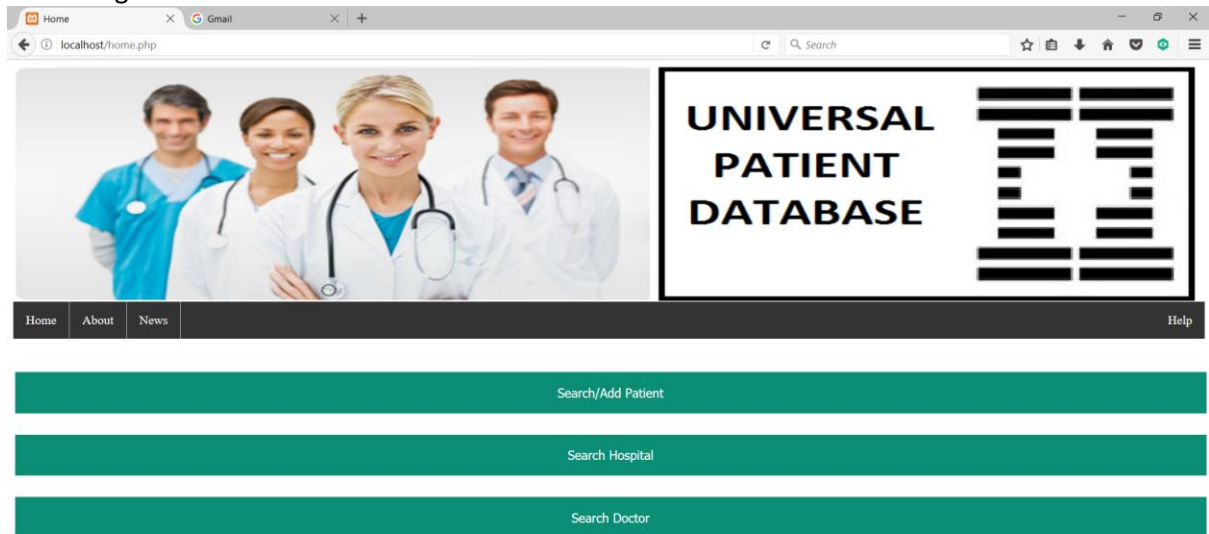
```
SQL> select * from p_contact@P1link
  2  /

      P_ID ADDRESS                                            CONTACT_NO
---------- -------------------------------------------------- ----------
P_NAME
--------------------------------
         3 Chembur                                            9022298522
Paresh

         4 Tilaknagar                                         9821798654
Dinesh

SQL> select * from p_gender@Dlink
  2  /

      P_ID G
---------- -
         3 M
         4 M
SQL>
```

PROJECT IMPLEMENTATION:

Home Page:

Search/Add Patient:

Search Patient:

Basic Info:

Patient Name	Patient ID	Patient Age	Patient Gender	Patient Address	Patient Contact No	Emergency Contact No	Doctor ID	Hospital ID	Patient Disease	Prescribed Medication	Patient Allergy	Admission Date	Discharge Date
Varun Thakur	3	23	M	Colaba	9546421000	27474500	3	4	Chicken pox	Amoxycillin	Dust	2016-01-01	2016-01-30
Varun Thakur	3	23	M	Colaba	9546421000	27474500	2	4	Malaria	Chloroquine	Dust	2016-03-06	2016-03-15
Varun Thakur	3	23	M	Colaba	9546421000	27474500	7	4	Fever	Frutimol	Dust	2016-06-08	2016-06-10
Varun Thakur	3	23	M	Colaba	9546421000	27474500	10	4	Fever	Frutimol	Dust	2016-08-13	2016-08-17
Varun Thakur	3	24	M	Colaba	9546421000	27474500	6	5	Common Cold	Cetrizine	Dust	2017-01-02	2017-01-04
Varun Thakur	3	24	M	Colaba	9546421000	27474500	2	1	Common Cold	Cetrizine	Dust	2017-04-02	2017-04-04

Add Patient:

Enter Patient's Disease(s):

Common Cold

Enter medication(s) prescribed to Patient:

Cetrizine

Enter any allergies observed:

Dust

Enter Admission date:

2017-04-20

Enter Discharge Date:

2017-04-20

Submit Query

Add Another Patient

Back To Home

Top