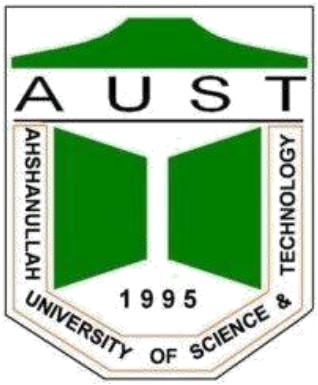
Ahsanullah University of Science and Technology



Distributed Database Lab

CSE 4126

Project name: National patient Management System.

Submitted by:

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Submitted to:

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National Patient management system

Project Abstract:

This will be a database of patient management system which will be able to be operated nationally. There will be the information of all patients around Bangladesh so that when a patient will go to a new doctor at new hospital, they will be able to check his/her past history through this database. So, the diagnosis will be more perfect and easy for the doctor and patient will be benefited at most.

User of this database:

Hospital authority.

Need of having distributed database for this project:

As this will be a national patient database so the data will be entered from every hospital around Bangladesh. That's why we need distributed database management system.

Global relations of this project:

Doctors (dr_id, dr_name, dr_age, dr_sex , dr_phn, dr_email, dr_hospital_chamber, designation, degree, department, experience, time, Fee, day, primary key (dr_id))

Reports (rep_id, rep_date, impression, primary key (rep_id))

Medicine (med_id, med_name, med_generic_name, med_company, med_work, med_per_price, primary key (med_id))

Diagnosis (dia_id, dia_name, dia_cost, dia_requirements, dia_hospital, rep_id, primary key (dia_id), foreign key(rep_id) references reports(rep_id))

History (his_id, his_date, problem, rep_id, dr_id, med_id, primary key (his_id), foreign key(rep_id) references reports(rep_id), foreign key(dr_id) references doctors(dr_id), foreign key(med_id) references medicine(med_id))

Surgical_history (s_his_id, s_date, s_name, s_hospital, s_cost, dr_id, primary key (s_his_id), foreign key(dr_id) references doctors(dr_id))

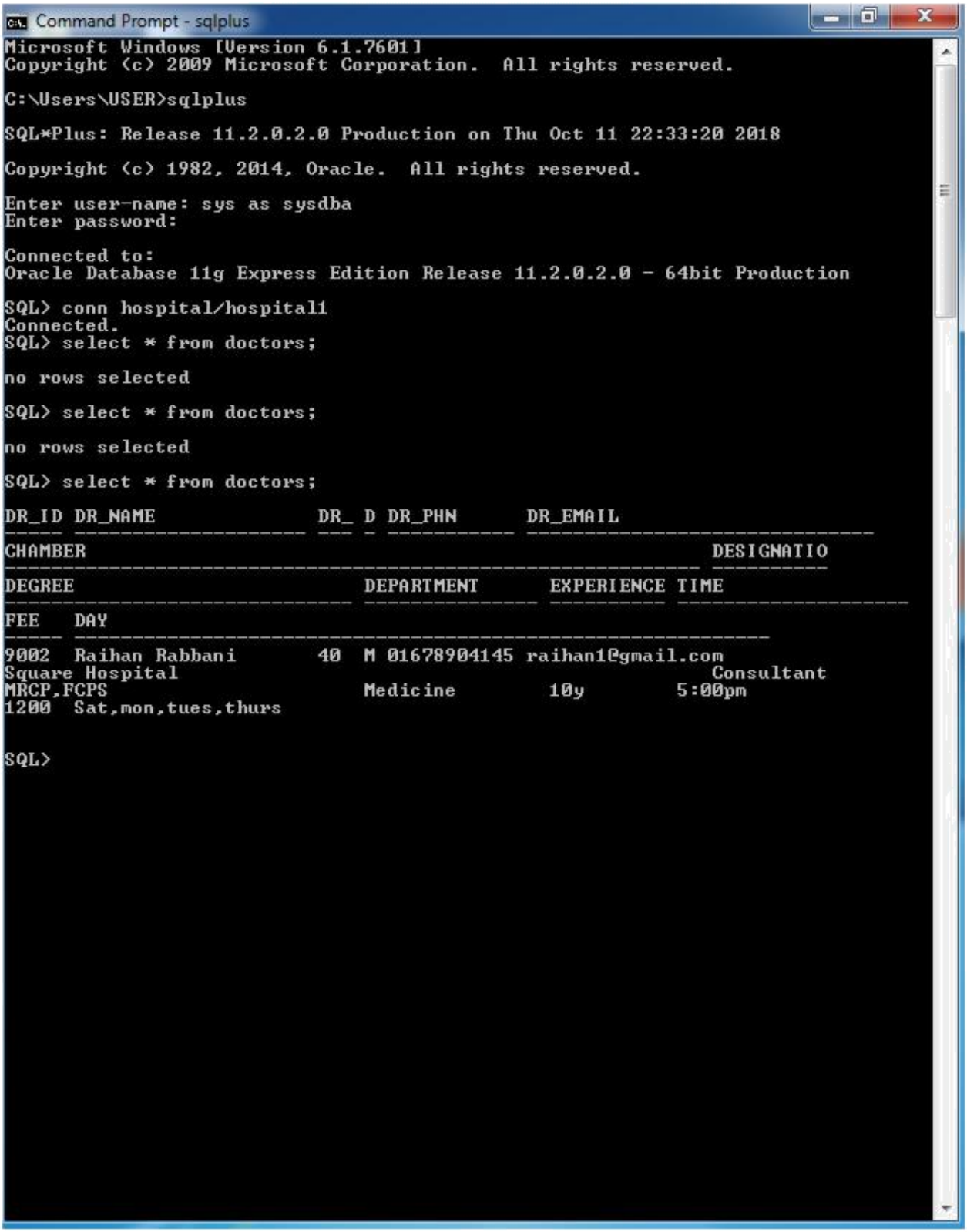
Patient (pt_id, pt_name, pt_age, pt_sex, pt_phn, pt_house, pt_road, pt_block, pt_section, pt_district, bl_grp, weight, height, dia_id, his_id, s_his_id, primary key (pt_id), foreign key(dia_id) references diagnosis(dia_id), foreign key(his_id) references history(his_id), foreign key(s_his_id) references surgical_history(s_his_id))

Fragments of this project:

Doctors1 = SL $_{dr\_hospital\_chamber="Square\ Hospital"}$ Doctors

Doctors2 = SL $_{dr\_hospital\_chamber="Medinova\ Diagnostic"}$ Doctors


Command Prompt - sqlplus
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.
C:\Users\user>sqlplus
SQL*Plus: Release 11.2.0.2.0 Production on Thu Oct 11 23:51:31 2018
Copyright (c) 1982, 2014, Oracle. All rights reserved.
Enter user-name: sys as sysdba
Enter password:
Connected to:
Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production
SQL> drop database link site1;
Database link dropped.
SQL> create database link site1 connect to hospital identified by "hospital1" us
ing '(DESCRIPTION =
2 (ADDRESS = (PROTOCOL = TCP)(HOST = 192.168.0.109)(PORT = 1521))(CONNECT_DAT
A =(SERVER =
3 DEDICATED)(SERVICE_NAME = XE)))';
Database link created.
SQL> create or replace procedure fragment_doctor1
2 is
3
4 begin
5
6 for t in (select * from doctors where dr_hospital_chamber = 'Square Hos
pital')
7 loop
8 insert into doctors@site1 values (t.dr_id, t.dr_name, t.dr_age,
t.dr_sex, t.dr_phn, t.dr_email, t.dr_hospital_chamber, t.designation, t.degree,
t.department, t.experience, t.time, t.fee, t.day);
9 end loop;
10 commit;
11
12 end;
13 /
Procedure created.
SQL>
SQL> execute fragment_doctor1;
PL/SQL procedure successfully completed.
SQL>


Command Prompt - sqlplus
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\USER>sqlplus
SQL*Plus: Release 11.2.0.2.0 Production on Thu Oct 11 22:33:20 2018
Copyright (c) 1982, 2014, Oracle. All rights reserved.
Enter user-name: sys as sysdba
Enter password:
Connected to:
Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production
SQL> conn hospital/hospital1
Connected.
SQL> select * from doctors;
no rows selected
SQL> select * from doctors;
no rows selected
SQL> select * from doctors;
DR_ID DR_NAME DR_ D DR_PHN DR_EMAIL
CHAMBER DESIGNATIO
DEGREE DEPARTMENT EXPERIENCE TIME
FEE DAY
9002 Raihan Rabbani 40 M 01678904145 raihan1@gmail.com
Square Hospital Consultant
MRCP,FCPS Medicine 10y 5:00pm
1200 Sat,mon,tues,thurs
SQL>

Sites of this project:

Site1 (Square Hospital) : Doctors1, patient, reports, medicine, diagnosis, history, surgical_history.

Site2 (Apollo Hospital) : Doctors2, patient, reports, medicine, diagnosis, history, surgical_history.

Triggers of this project:

Trigger 1: There are two tables at site1 where male and female patients are differentiated.

Trigger 2: There is a new table at site 1 when a phone number of a patient is changed it is stored there.

A procedure which works from site to server:

There is a procedure named blood_group_find where from site1 means from Square Hospital they can search patients of blood group B+ from server's patient table.

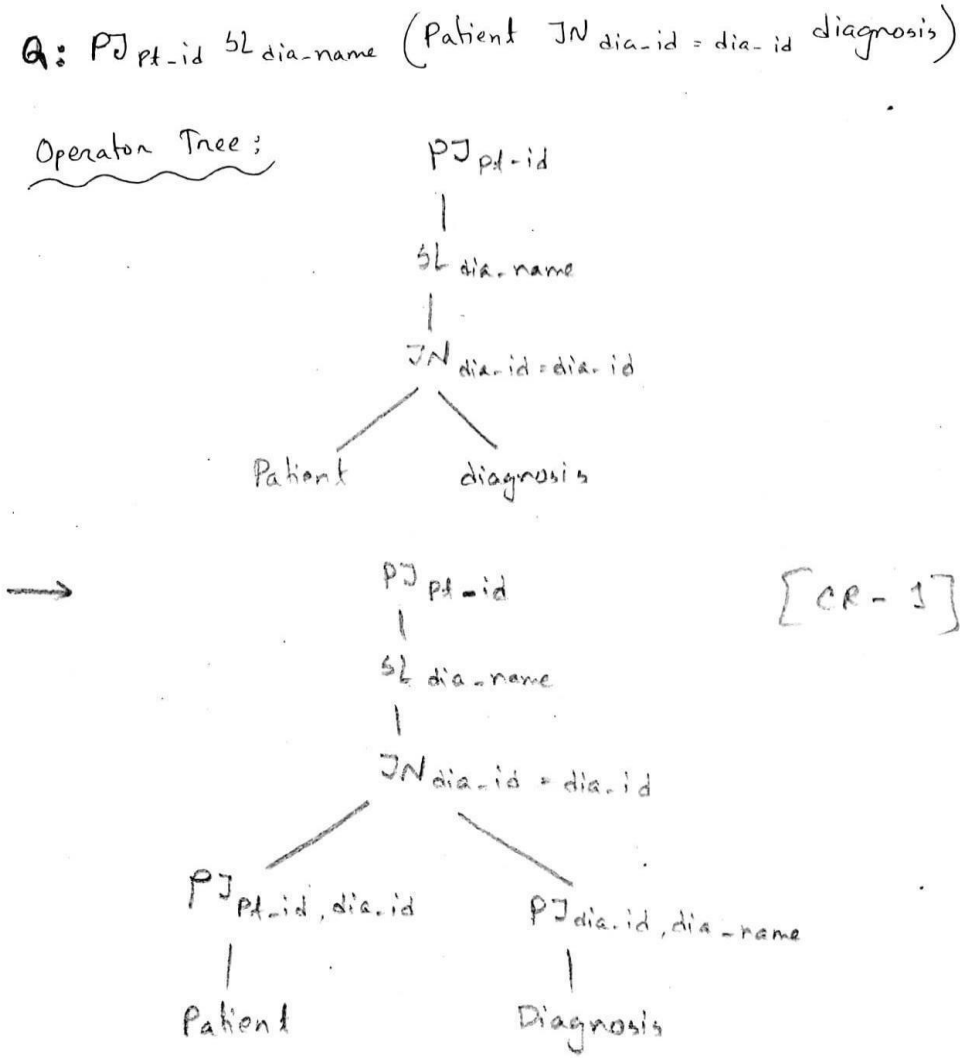
Level-3 distribution transparency:

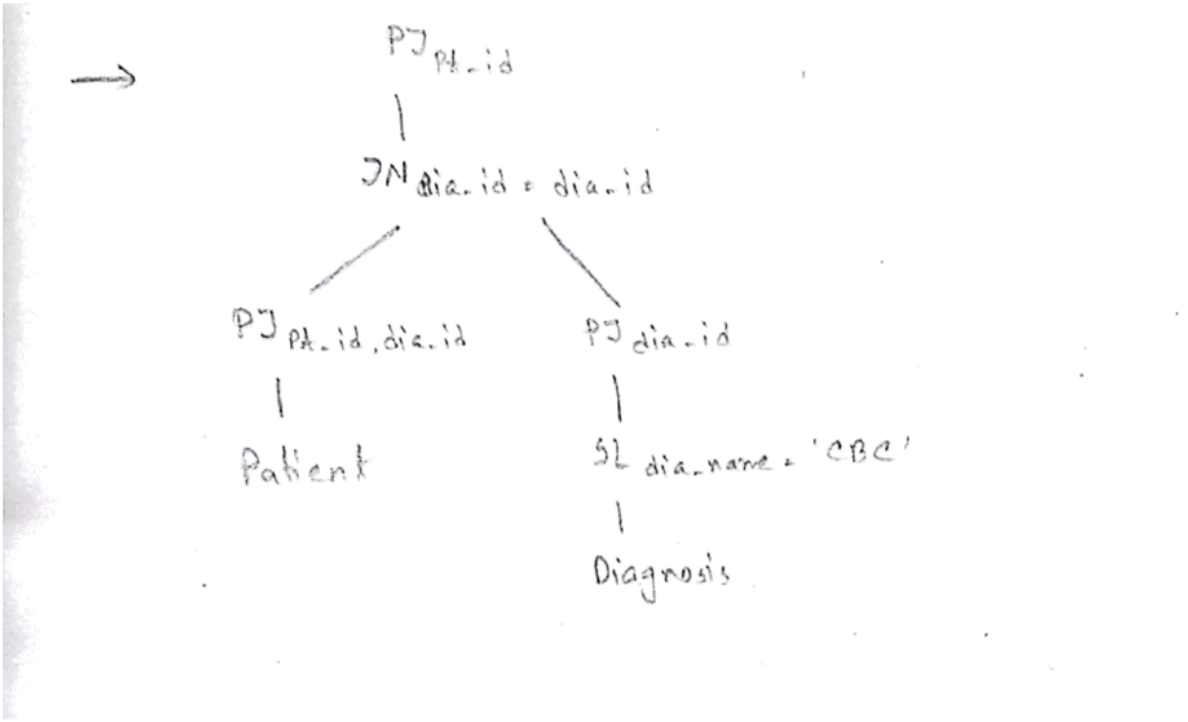
If a doctor of Square hospital changes his chamber to Medinova diagnostic center then his information will be deleted from site 1 and inserted to site 2.

Select dr_name, dr_age, dr_sex, dr_phn, dr_email, designation, degree, department, experience, time, fee, day into $dr_name, $dr_age, $dr_sex, $dr_phn, $dr_email, $designation, $degree, $department, $experience, $time, $fee, $day from doctors1 at site1
Where dr_id = 9002
IF #FOUND then,
    Insert into doctors2 at site2: (9002, $dr_name, $dr_age, $dr_sex,

$dr_phn, $dr_email, "Medinova", $designation, $degree, $department, $experience, $time, $fee, $day);
Delete doctors1 at site1 where dr_id = 9002;

Operator Tree:





Conclusion:

We have worked this far on this project. We hope that this project will be really helpful at our medical sector.