2015

DIA BASE

Medical Diagnostic Centre Database

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Contents

1. INTRODUCTION

This is a report on system requirements specifications of the database to be created for the Medical Diagnostic Centre Database.
It deals with medical tests to be conducted on patients and save their reports and other documents related to their tests such as charges etc.
This type of database is of great importance for medical purposes as their research and progress is supposed to be recorded properly

This report deals with

1) Entity Relationship diagram
2) All tables and relations for this database
3) Functional dependencies for the tables
4) Key constraints (Candidate key and foreign key for all tables)
5) Queries that should be supported

PROBLEM STATEMENT

TOPIC: Medical Diagnostic Centre Database

It should contain the details of the different medical tests (pathological etc.) conducted by the diagnostic centre. All the tests will have associated charges. There may be doctors associated with the centre for conducting and preparation of reports of some category of tests.

2. Project Overview:

This document will identify the pertinent software products we will develop including a Host DBMS and JAVA/Python software supported Patient and Technician. The SRS will show that we will be utilizing MySQL server for interfacing with Java applets .The Software developed is portable between different operating systems such as Linux and Windows.

In addition to the specific design components of this software, this document will make clear the design team's goals of creating value-added software which not only correctly captures patient report, but then efficiently stores it, sorts it, retrieves it, and delivers this critical care information where it is needed by healthcare professionals.

3. Project Specifications:

1) The software code should be portable between different operating systems such as Linux and Windows.

2) The software should be easy to use and should require minimum manual operation.

3) The software should have a user-familiar interface so that the system would not pose an additional workload to the users.

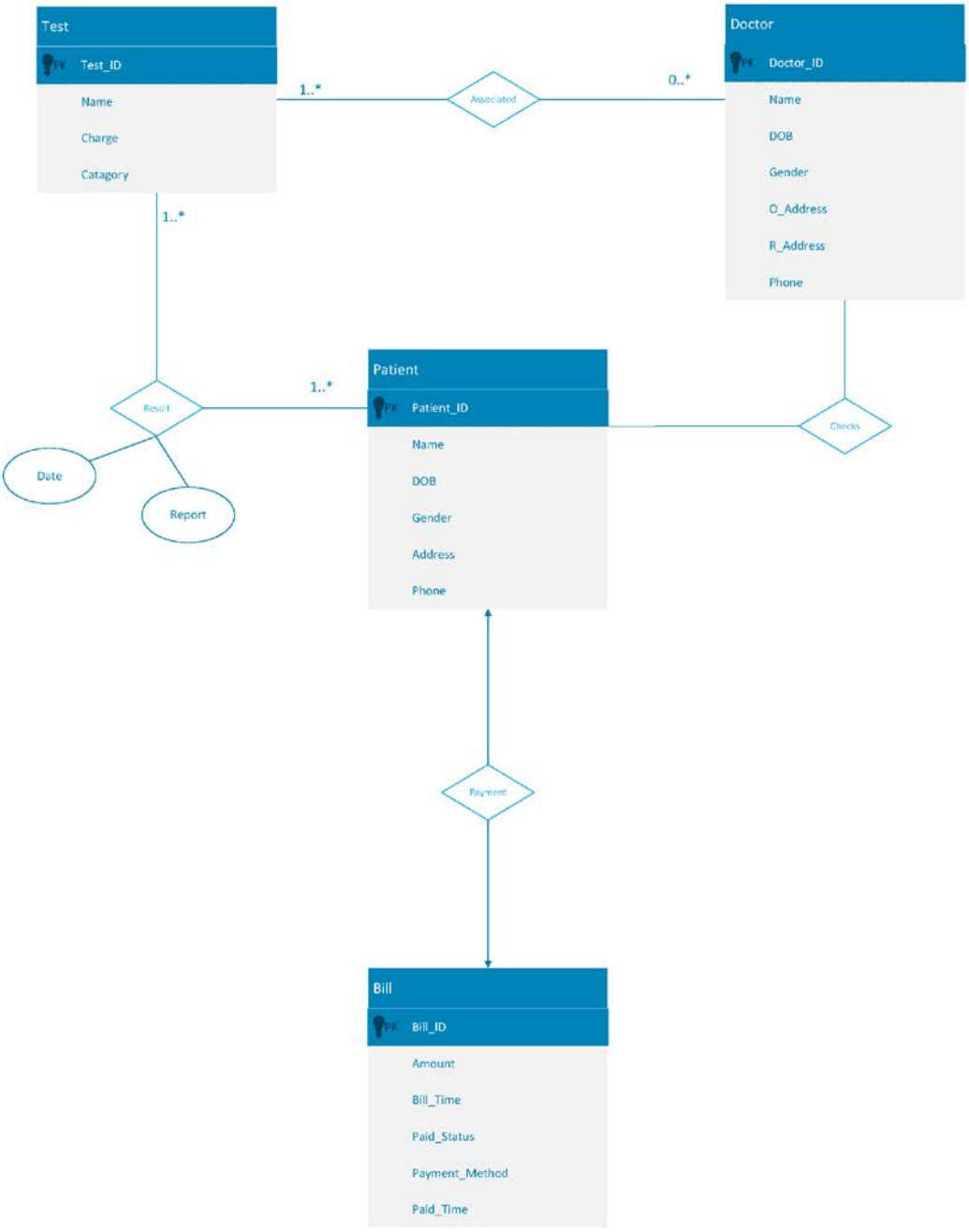
Note. Interface design would follow generally accepted model conventions for placement of dropdown menus and toolbars.

4) The software should allow bidirectional synchronous communication between the user and the data source in real time.

5) The software should allow collection of vital signs and still images of the patient for visual inspection by experts.

6) The software should be able to avoid congestion while transmitting high volumes of data and images in real-time.

7) The software should sample video images from diagnostic equipment automatically with the transmission capacity available.


Test
Test_ID
Name
Charge
Catagory
1..*
Associated
0..*
Doctor
Doctor_ID
Name
DOB
Gender
O_Address
R_Address
Phone
1..*
Result
1..*
Patient
Patient_ID
Name
DOB
Gender
Address
Phone
Checks
Date
Report
Payment
Bill
Bill_ID
Amount
Bill_Time
Paid_Status
Payment_Method
Paid_Time

5. RELATIONS FOR THIS DATABASE

Test(Test_ID, Name, Charge, Category)
Doctor(Doctor_ID, Name,DOB,Gender,O_Address,R_Address,Phone)
Test_ Doctor(ID, Test_ ID, Doctor_ ID)
Patient(Patient_ID, Name ,DOB,Gender,Address,Phone)
Bill(Bill_ID,Amount,Bill_Time,Paid_Status,Payment_Method,Paid_Time)
Patient_ Bill(ID, Patient_ID, Bill_ID,)
Test_ Patient(ID, Test_ID, Patient_ID,Date_of_test,Report_ID, Report_date)

6. FUNCTIONAL DEPENDENCIES

Test_ID → (Name, Charge, Category)
Doctor_ ID → (Name,DOB,Gender,O_Address,R_Address,Phone)
ID → (Test_ ID, Doctor_ ID)
Patient_ ID → (Name ,DOB,Gender,Address,Phone)
Bill_ ID → (Amount,Bill_Time,Paid_Status,Payment_Method,Paid_Time)
ID → (Patient_ID, Bill_ID)
ID → (Test_ID, Patient_ID,Date_of_test,Report_ID, Report_date)

7. TABLE CONSTRAINTS

List of tables in our database with constraints

TABLE NAME	PRIMARY KEY	FOREIGN KEY	REFERENCES FOR FOREIGN KEY
TEST	Test_ID		
DOCTOR	Doctor_ ID		
TEST_ DOCTOR	ID	Test_ID Doctor_ ID	Test (Test_ID) Doctor (Doctor_ ID)
PATIENT	Patient_ID		
BILL	Bill_ID		
PATIENT_ BILL	ID	Patient_ID Bill_ID	Patient(Patient_ID) Bill(Bill_ID)
TEST_ PATIENT	ID	Patient_ID Test_ID	Patient(Patient_ID) Test (Test_ID)

8.QUERIES

i. Test and respective Doctors for a particular test
ii. Tests and respective patients for a particular Doctor
iii. Show the list of all patients whose dues are pending (for more than one month or two)
iv. Show the list of those tests and doctors specified for those test whose reports are pending
v. Show the list of all Doctors who can do a particular test and present report on that test
vi. Show the list of Patients who got their reports and who didn't with their test and respective Doctors details
vii. Show those tests which are going to be performed today or tomorrow
viii. Show those tests which are not yet performed