CSL451 – Introduction to Database Systems

Medical Record Database System

Group 6

Non- Trivial Functional Dependecies (3NF Form):

1) id_pha, name, dose, expiry_date, time_stamp → add_quantity

2) name, dose, expiry_date → quantity

3) id_doc, id_pat, id_pha, timestamp → description, medical_cert

4) id_dep → relation

5) id_staff → position

6) id_fac → department

7) id_emp → house, city, state, pin_code

8) id_std → entry_no, room_no, hostle_name, guardian_name, guardian_phone, house_no, state, pin_code

9) id_pha → name, qualification, house_no, city, state, pin_code, joining_date

10) id_doc → name, qualification, field, house_no, city, state, pin_code, joining_date

11) id_pat → name, gender, date_of_birth

Relational Schema:

1) Patient(id_pat, name, gender, date_of_birth)
   Primary Key – id_pat

2) Doctor (id_doc, name, qualification, field, house_no, city, state, pin_code, joining_date) Primary Key – id_doc

3) Pharmacist (id_pha, name, qualification, house_no, city, state, pin_code, joining_date) Primary Key – id_pha

4) Student (id_std, entry_no, room_no, hostle_name, guardian_name, guardian_phone, house_no, state, pin_code)
   Primary Key – id_std
   Foreign Key – id_std references Patient

5) Employee(id_emp, house, city, state, pin_code)
   Primary Key – id_emp
   Foreign Key – id_emp references Patient

6) Faculty (id_fac, department)
   Primary Key – id_fac
   Foreign Key – id_fac references Employee

7) Staff (id_staff, position)
   Primary Key – id_staff
   Foreign Key – id_staff references Employee

8) Dependent(id_dep, relation)
   Primary Key – id_dep

9) Depends_on(id_dep,id_fac)

Primary Key – id_dep, id_fac
Foreign Key – id_fac references Faculty

10) Prescription(id_doc, id_pat, id_pha, timestamp , description, medical_cert)
Primary Key – id_doc, id_pat, id_pha, timestamp
Foreign Key – id_doc references Doctor
Foreign Key – id_pat references Patient
Foreign Key – id_pha references Pharmacist

11) Suggested_med(id_doc, id_pat, id_pha, name, dose, timestamp)
Primary Key - id_doc, id_pat, id_pha, name, dose, timestamp
Foreign key - id_doc, id_pat, id_pha, timestamp references Prescription
Foreign Key - name, dose references Medicine

12) Test_result(id_doc, id_pat, id_pha, timestamp, test_results)
Primary Key – id_doc, id_pat, id_pha, timestamp, test_result
Foreign Key – id_doc, id_pat, id_pha, timestamp references Prescription

13) Pres_Disease(id_doc, id_pat, id_pha, timestamp, disease)
Primary Key – id_doc, id_pat, id_pha, timestamp, disease
Foreign Key – id_doc, id_pat, id_pha, timestamp references Prescription

14) Medicine(name, dose)
Primary Key – name, dose

15) Med_salts(name, dose, salt)
Primary Key – name, dose, salt
Foreign Key – name, dose references Medicine

16) Stock(name, dose, expiry_date, quantity)
Primary Key – name, dose, expiry_date
Foreign Key – name, dose references Medicine

17) Updates(id_pha, name, dose, expiry_date, time_stamp , add_quantity) Primary Key – id_pha, name, dose, time_stamp, expiry_date
Foreign Key – id_pha references Pharmacist
Foreign Key – name, dose, expiry_date references Stock

18) Doc_phone(id_doc, phone_no)
Primary Key – id_doc, phone_no
Foreign Key – id_doc references Doctor

19) Emp_phone(id_emp, phone_no)
Primary Key – id_emp
Foreign Key - id_emp references Employee

20) Std_phone(id_std, phone_no)
Primary Key – id_std
Foreign Key - id_std references Student

21) Pha_phone(id_pha, phone_no)
Primary Key – id_pha, phone_no
Foreign Key - id_pha references Pharmacist