Assignment 3

DB Lab
21K-315 3

① ⊙ • no attributes can be decomposed.
already in 1F.

Primary keys:
① Project Code :
~~Project Code~~ →
• Project Code → Project Name
Project Code → Project Manager
Project Code → Project Budget

② Employee_Id :
EmployeeID ⇒ EmployeeName

③ Department No.
Dno ⇒ Dname
Dno ⇒ Rate

All nonprime attributes are fully functionally dependent on
their respective primary key. Thus table already 2f

No transitive dependencies in the relation. 3NF

Q2

1   S-ID & C-ID

2   Adding a new tuple to input a 'C-Grade' would
mean re adding ⊕ information about sid, sname,
campus location & major.

                     mean that
Upating major will ~~cause~~ , changes need to be made
     to campus location, C-ID, C-title.

3   S-ID ⇒ major, sname, campus laction
        CID ⇒ CTitle, fname.
        sid, cid ⇒ grade
        fname ⇒ flocation

    already 1Nf, 2Nf

    transitive depedency:
           ⊕ Cid ⇒ fname
                ⤷ ⇒ flocation

      fname primary

      fname   floc

      cid   ctitle   fname

Student

Sid   Sname   Gmpulocation   Major

Course

Cid   Gtitle   fname

Grade

Sid   Cid   Grade   C Grade

faculty

fname   Flocation

Q3 — Entity-Relationship Diagram

Patients (Pid, fname, Lname, Gender, number, address, email, DOB)
— 1,N — consult — 0,N — Doctors (Did, fname, Lname, number, email, specialization)

Nurse (Nid, fname, Lname, Department, email, Number)
— work with — has

Appointments (Aid, Pid, Did, status, date, Time)
— 1,1 — take

Records (MR#, Pid, Did, Date, treatment, diagnosis)
— has — 1,1

Payments (PayID, Pid, Amount, Pdate, Pmethod)
— make — 1,1

Departments (DeptId, Dname, HoD)
— 1,N — associates — 0,N — has — 1,1

Beds (Bid, availability, Ward, Bnum)