1)

Insertion Anaomilies:-

You cannot add new values without knowing the values of VisitNo and ProvNo as

they are unique and can act as primary key

Updation Anamoilies:-

When modifying values where the ProvNo is D2 it changes 2 records.

Deletion Anamoilies:-

Similar to Updation, when we want to record whose ProvNo is D2 then it deletes 2

records.

2)

Functional Dependecies:-

PatNo -> PatAge

PatZip -> PatCity

VisitNo -> VisitDate

PatNo -> PatZip

ProvNo -> ProvSpeciality

VisitNo -> PatNo

VisitNo, ProvNo -> Diagnosis

ProvNo -> ProvEmail

ProvEmail -> ProvNo

Grouping them gives :-

PatNo -> PatAge, PatZip

VisitNo -> PatNo, VisitDate

ProvNo -> ProvEmail, ProvSpeciality

VisitNo, ProvNo -> Diagnosis

Tables:-

Patient:

PatNo – PK

PatAge

PatZip

Visit:

VisitNo – PK

PatNo – FK

VisitDate

Provision:

ProvNo – PK

ProvEmail – UK

ProvSpeciality

VisitProvision:

VisitNo – PK FK

ProvNo – PK FK

Diagnosis

3)

Student (StdNo, StdName, StdEmail, StdAddress, StdCity, StdState, StdZip )

Lender(LenderNo, LenderName)

Institution(InstNo, InstName, InstMascot)

Constraint Unique(StdEmail)

Constraint Unique(LenderName)

Constraint Unique(InstName)

It is already in BCNF Form.

4)

OrdNo -> ItemNo (1, 2), (3, 4)

OrdNo -> QrtOrd (3, 4)

OrdNo -> CustNo None

OrdNo -> CustBal None

OrdNo -> CustDisc None

OrdNo -> ItemPrice (1, 2), (3, 4)

OrdNo -> OrdDate None