

Question 2

Step 1: Having Same LHS into same group:

PatNo -> PatAge, PatZip9

PatZip9 -> PatCity

VistiNo -> VisitDate, PatNo

ProvNo -> ProvSpeciality, ProvEmail

VisitNo, ProvNo -> Diagnosis

ProvEmail -> ProvNo

6 FD Groups are there

Step 2: For each FD group, make table and set PK and FK. PK are underlined and in bold. Table Name is in Italic.

Patient(**PatNo**, PatAge, PatZip9)

FOREIGN KEY(PatZip9) REFERENCES PatientZip

PatientZip(**PatZip9**, PatCity)

Visit(**VisitNo**, VisitDate, PatNo)

FOREIGN KEY(PatNo) REFERENCES Patient

Provider(**ProvNo**, ProvSpeciality, ProvEmail)

FOREIGN KEY(ProvEmail) REFERENCES ProviderEmail

ProvVisit(**ProvNo**, **VisitNo**, Diagnosis)

FOREIGN KEY(ProvNo) REFERENCES Provider

FOREIGN KEY(VisitNo) REFERENCES Visit

ProviderEmail(**ProvEmail**, ProvNo)

FOREIGN KEY(ProvNo) REFERENCES Provider

Step 3: Merge tables:

Merge Provider and ProviderEmail and Unique(ProvEmail)

Patient(**PatNo**, PatAge, PatZip9)

FOREIGN KEY(PatZip9) REFERENCES PatientZip

PatientZip(**PatZip9**, PatCity)

Visit(**VisitNo**, VisitDate, PatNo)

FOREIGN KEY(PatNo) REFERENCES Patient

Provider(**ProvNo**, ProvSpeciality, ProvEmail)

UNIQUE(ProvEmail)

ProvVisit(**ProvNo**, **VisitNo**, Diagnosis)

FOREIGN KEY(ProvNo) REFERENCES Provider

FOREIGN KEY(VisitNo) REFERENCES Visit