**Problem 2 : Module 11**

**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