**PROBLEM 2**

**STEP 1: Arranging FDs into groups by determinant**

PatNo → PatAge, PatZip9

PatZip9 → PatCity

VisitNo → VisitDate, PatNo

ProvNo → ProvSpeciality, ProvEmail

VisitNo, ProvNo → Diagnosis

ProvEmail → ProvNo

**STEP 2: : For each FD group, make a table with the determinant as the primary key. In the table list, the primary keys are underlined.**

Patient(PatNo,PatAge,PatZip9) FOREIGN KEY (PatZip9) REFERENCES Zip

Zip(PatZip9, Patcity)

Visit(VisitNo, VisitDate, PatNo) FOREIGN KEY (PatNo) REFERENCES Patient

Provider(ProvNo, ProvSpeciality, ProvEmail) FOREIGN KEY (ProvEmail) REFERENCES ProvidEmail

Appointment(VisitNo, ProvNo, Diagnosis)

FOREIGN KEY (VisitNo) REFERENCES Visit

FOREIGN KEY (ProvNo) REFERENCES Provider

ProvidEmail(ProvEmail, ProvNo) FOREIGN KEY (ProvNo) REFERENCES Provider

**STEP 3:** Provider and ProvidEmail will be merged as they have same columns

Provider(ProvNo, ProvSpeciality, ProvEmail) UNIQUE ProvEmail