**Solution To Module 11**

2.

Step 1: Arrange the FDs into groups by determinants

PatNo -> PatAge, PatZip9

PatZip9 -> PatCity

VisitNo -> VisitDate, PatNo

ProvNo -> ProvSpecialty, ProvEmail

ProvEmail -> ProvNo

VisitNo, ProvNo -> Diagnosis

Step 2: For each FD group make table

Patient (PatNo, PatAge, PatZip9)

FOREIGN KEY (PatZip9) REFERENCES PatZip

PatZip (PatZip9, PatCity )

Visit (VisitNo, VisitDate, PatNo)

FOREIGN KEY (PatNo) REFERENCES Patient

Provider(ProvNo, ProvSpecialty, ProvEmail )

FOREIGN KEY (ProvEmail) REFERENCES ProviderEmail

ProviderEmail (ProvEmail, ProvNo)

FOREIGN KEY (ProvNo) REFERENCES Provider

Provide (VisitNo, ProvNo, Diagnosis)

FOREIGN KEY (ProvNo) REFERENCES Provider

FOREIGN KEY (VisitNo) REFERENCES Visit

Step 3: Merge tables with same columns. Provider and ProviderEmail tables are merged.

Patient (PatNo, PatAge, PatZip9)

FOREIGN KEY (PatZip9) REFERENCES PatZip

PatZip (PatZip9, PatCity )

Visit (VisitNo, VisitDate, PatNo)

FOREIGN KEY (PatNo) REFERENCES Patient

Provider (ProvNo, ProvSpecialty, ProvEmail )

UNIQUE (ProvEmail)

Provide (VisitNo, ProvNo, Diagnosis)

FOREIGN KEY (ProvNo) REFERENCES Provider

FOREIGN KEY (VisitNo) REFERENCES Visit