**Assignment 1 - MODULE 11**

**Ans 2.**

**Step 1:**

**Arrange the FDs into groups by determinant**

**PatNo  PatAge, PatZip9**

**PatZip9  PatCity**

**VisitNo  VisitDate, PatNo**

**ProvNo  ProvSpecialty, ProvEmail**

**VisitNo, ProvNo  Diagnosis**

**ProvEmail  ProvNo**

**Step 2:**

**Define Tables. 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, ProvSpecialty, ProvEmail)**

**Results (VisitNo, ProvNo, Diagnosis)**

**FOREIGN KEY (VisitNo) REFERENCES Visit**

**FOREIGN KEY (ProvNo) REFERENCES Provider**

**Step 3:**

**Merge tables with the same columns. Patient and Zip tables can be merged as nine-digit zip references only one city name (FK reference for PatZip9 also removed).**

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

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

**FOREIGN KEY (PatNo) REFERENCES Patient**

**Provider (ProvNo, ProvSpecialty, ProvEmail)**

**Results (VisitNo, ProvNo, Diagnosis)**

**FOREIGN KEY (VisitNo) REFERENCES Visit**

**FOREIGN KEY (ProvNo) REFERENCES Provider**