ASSIGNMENT MODULE 11

1. Insertion Anomaly : We need to know VisitNo and ProvNo to insert into the table.
   Update Anomaly : A change in ProvSpecificity of ProvNo updates more than 1 updations
   to the table.
   Deletion Anomaly : If details about either P3 or P1 are removed it results in
   ProvSpeciaity data.

2. PatNo -> PatAge,PatZip
   PatZip -> PatCity
   VisitNo -> PatNo, VisitDate
   ProvNo -> ProvSpeciality,ProvEmail
   ProvNo,VisitNo ->Diagnosis.

   BCNF tables depending on above Functional Dependencies:

   Table1(PatNo PrimaryKey, PatAge, PatZip ForeignKey references Table2)
   Table2(PatZip Primary Key, PatCity)
   Table3(VisitNo PrimaryKey , PatNo, VisitNo , ForeignKey(PatNo) references Table1)
   Table4(ProvNo Primary Key, ProvSpeciality,ProvEmail UNIQUE)
   Tabel5(ProvNo,VisitNo,Diagnosis ,ForeignKey(ProvNo) references Table4,
   ForeignKey(VisitNo) references Table3 , Primary Key(ProvNo,VisitNo))

3. A. Student Table has two determinants so it violates BCNF, so Email Should be marked
   as Unique Student (
   StdNo, StdName, StdEmail UNIQUEI, StdAddress, StdCity, StdState, StdZip).

   B. Lender Table doesn't violate BCNF

   C.Institution (InstNo, InstName UNIQUE, InstMascot)

4.
   OrdNo → ItemNo (1,2), (3,4)
   OrdNo → QtyOrd (3,4)
   OrdNo → CustNo None
   OrdNo → CustBal None
   OrdNo → CustDisc None
   OrdNo → ItemPrice (1,2), (3,4)
   OrdNo → OrdDate None