**Module 10 Practice Problems**

**PROBLEM 1**

Customer(**CustNo**, CustFirstName, CustLastName, CustCity, CustState, CustZip, CustBal)

Order(**OrdNo**, *CustNo*, *EmpNo*, OrdDate, OrdName, OrdCity, OrdState, OrdZip,

Foreign Key (CustNo), References Customer (CustNo)

Foreign Key (EmpNo), References Employee (EmpNo)

)

Product(**ProdNo,** ProdName, ProdQOH, ProdPrice, ProdNextShipDate)

Employee(EmpNo, *EmpSupNo*, EmpFirstName, EmpLastName, EmpPhone, EmpEmail, EmpDeptName, EmpCommRate,

Foreign Key (EmpSupNo), References Employee (EmpSupNo)

)

Contains(**OrdNo**, **ProdNo**, Quantity

Foreign Key OrdNo), References Order (OrdNo)

Foreign Key (ProdNo), References Product (ProdNo)

)

**Conversion Rules**

* Use entity type tule to convert each entity type
* Use the 1-M relationship rule for all relationships except the contains relationship
* Use the M-N rule to convert the Contains relationship

**PROBLEM 2**

Customer(**CustNo**, CustFirstName, CustLastName, CustCity, CustState, CustZip, CustBal)

Order(**OrdNo**, *CustNo*, *EmpNo*, OrdDate, OrdName, OrdCity, OrdState, OrdZip,

Foreign Key (CustNo), References Customer (CustNo)

Foreign Key (EmpNo), References Employee (EmpNo)

)

Employee(EmpNo, *EmpSupNo*, EmpFirstName, EmpLastName, EmpPhone, EmpEmail, EmpDeptName, EmpCommRate,

Foreign Key (EmpSupNo), References Employee (EmpSupNo)

)

Product(**ProdNo,** ProdName, ProdQOH, ProdPrice, ProdNextShipDate)

Employee(EmpNo, *EmpSupNo*, EmpFirstName, EmpLastName, EmpPhone, EmpEmail, EmpDeptName, EmpCommRate,

Foreign Key (EmpSupNo), References Employee (EmpSupNo)

)

Order(**OrdNo**, *CustNo*, *EmpNo*, OrdDate, OrdName, OrdCity, OrdState, OrdZip,

Foreign Key (CustNo), References Customer (CustNo)

Foreign Key (EmpNo), References Employee (EmpNo)

)

OrderLine(***OrdNo***, ***ProdNo***, Qty

Foreign Key (OrdNo), References Order (OrdNo)

Foreign Key (ProdNo), References Product (ProdNo)

)

**Conversion Rules**

* Use the entity type rule to convert each entity type
* Use the 1-M relationship rule for all relationships
* Use the Identification dependency rule to add the two components (OrdNo, ProdNo) that make up the OrderLine tables PK

**PROBLEM 3**

Building**(BldgID**, BldgName, BldgLocation)

Room(**RoomNo**, *BldgID*, RoomCapacity

Foreign Key (BldgID) References Building (BldgID)

)

**Conversion Rules**

* Use entity rule to convert each entity type
* Use the 1-M relationship rule to convert the contains relationship into the BlgdID FK in the rooms table
* Use the identification rule to make the BldgID a part of the PK in the room’s table as it is a combination of RoomNo and BlgdID
* A NOT NULL constraint is not needed on Room.BlgdID as it is part of the PK