Method 1

Person (ID, Status, Phone#, Street, ZipCode, City, State, LastName, FirstName, DOB_Day,
        DOB_Month, DOB_Year)

FDs:
ZipCode,State → City
ID → Status,FirstName,LastName,DOB_Day,DOB_Month,DOB_Year
Phone#
Street

Normal Form: BCNF/3NF

Employee (DeptName, EID)

FDs:
EID → DeptName

Normal Form: BCNF

Customer (PolicyAgree, CID)

FDs:
CID → PolicyAgree

Normal Form: BCNF

ServRep (SRID)

FDs:
SRID

Normal Form: BCNF

Data Base Administrator (DID)

FDs:
DID

Normal Form: BCNF

Manager (MID)

FDs:
MID

Normal Form: BCNF

Transactions (TransID, Day, Month, Time, Year)

FDs:
TransID → Day,Month,Time,Year

Normal Form: BCNF/3NF

**Orders (Quantity, PayAmt, Invoice#, MID, Trans_ID, KeyCode)
**original table converted to two tables to increase normalization

Orders_Invoice (Quantity, PayAmt, Invoice#, Trans_ID)Trans_ID ref TransID

FDs:
Invoice# → Quantity,PayAmt, TransID
TransID → Invoice#

Normal Form: 3NF

Orders (Trans_ID, KeyCode, MID) MID ref MID, Trans_ID ref TransID, KeyCode ref Key_Code

FDs:
TransID → Key_Code,MID
Key_Code → TransID,MID

Normal Form: 3NF

Games (Key_Code, Avail_To_Buy, Developer, Platform, Genre, Title, Price)

FDs:
Key_Code → Developer,Platform,Genre,Title,Price, Avail_To_Buy (superkey)
Platform → Developer (trivial)

Normal Form: 3NF

Supplier (<u>SID</u>, Phone#, Co_Name, State, Street, City, Zipcode)

FDs:
Zipcode,State → City
SID → Co_Name, Phone#
Street

Normal Form: BCNF/3NF

Purchase (CID, Key_Code , <u>Trans_ID</u>, Total, Last4_CC#)

FDs:
Trans_ID → Total,Last4_CC#,CID, Key_Code
Key_Code → CID,Trans_ID

Normal Form: 3NF

Supplies (<u>SID</u>, <u>Key_Code</u>)

FDs:
Key_Code → SID

Normal Form: 3NF

Contacts (<u>TransID</u>, CID, SRID, purchase_ref_#)

FDs:
purchase_ref_# → CID (purchase_ref_# not part of any candidate key)
TransID → CID,SRID

Normal Form: 2NF