Assignment for Module 10

The assignment for Module 10 involves problems for schema conversion. Problems 1 to 4 involve the ERD in Figure 1.

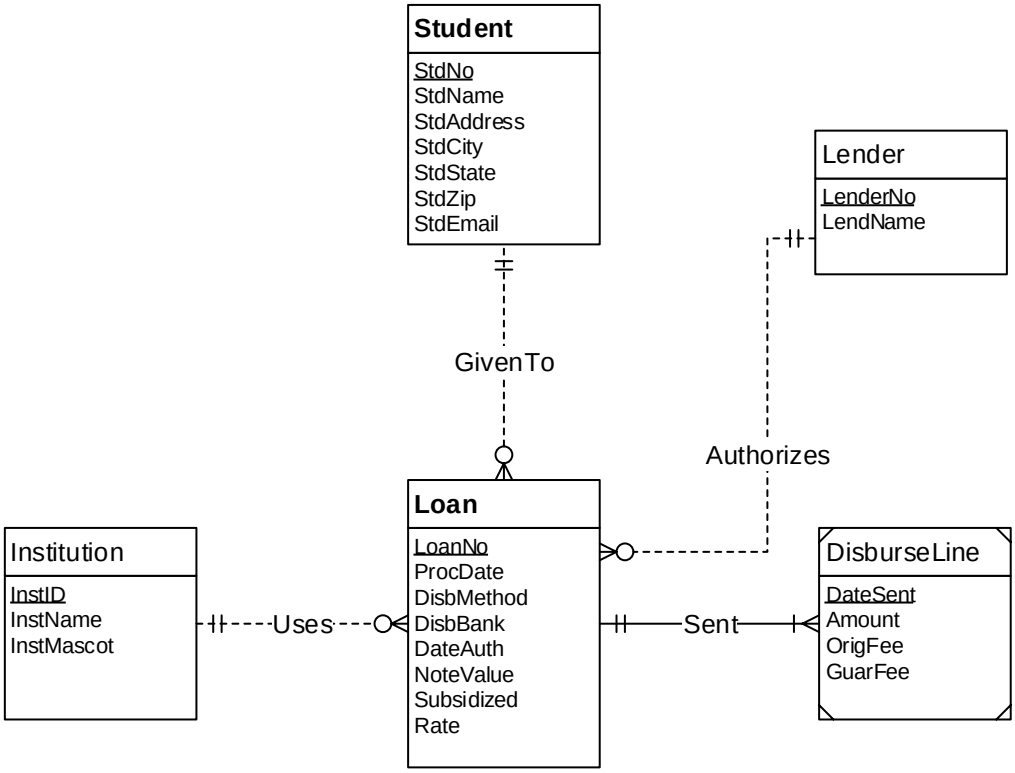

Figure 1: ERD for Problems 1 to 4

1. Requirements for Data Modeling Problems

1. For the ERD in Figure 1, you should indicate the applications of the entity type rule. For each entity type rule application, you should identify the table name, primary key, and other columns. You do not need to write CREATE TABLE statements.
2. For the ERD in Figure 1, you should indicate applications of the 1-M relationship rule. For each 1-M relationship rule application, you should indicate the changes to the tables you

listed in problem 1 including foreign key columns and NOT NULL constraints for foreign keys if necessary.

3. For the ERD in Figure 1, you should indicate applications of the M-N relationship rule. For each M-N relationship rule application, you should list the table name, primary key, and other columns.
4. For the ERD in Figure 1, you should indicate applications of the identifying relationship rule. For each identifying relationship rule application, you should indicate the changes to the tables you listed in problem 2.

   RESULTS AFTER CONVERSION:

   Student (Stdno , StdName , StdAddress ,StdCity , StdZip , StdEmail)

   Lender(LenderNo,LendName)

   Instituition(InstID,InstNAme,InstMascot)

   Loan(LoanNo, Stdno , LenderNo, InstID

   ProcDate,DisbMethod,DisbBank,DateAuth,Notevalue,Subsidized,Rate),

   FOREIGN KEY(Stdno) REFERENCES Student

   FOREIGN KEY(Stdno) REFERENCES Student

   FOREIGN KEY(Stdno) REFERENCES Student

   DisburseLine(Dateset,LoanNo,Amount,origFee,GuarFee)

   FOREIGNKEY(LoanNo) REFERENCES Loan

Conversion rules

- Use the entity type rule to convert each entity type
- Use the 1-M relationship rule for all relationships except the *DisbursedLine* relationship
- Use the M-N rule and Identifying RealtionShip to convert the *DisbursedLine* relationship

5. Convert the ERD shown in Figure 2 into tables. List the conversion rules used and table design. For each table, you should list the primary key, foreign keys, other columns, and NOT NULL constraints for foreign keys if necessary. You do not need to write CREATE TABLE statements.

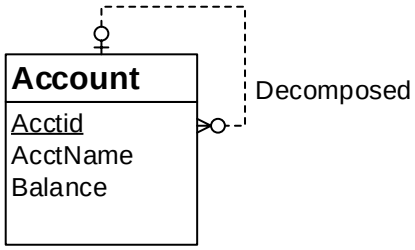

Figure 2: ERD for Conversion Problem 5

Results After Conversion:

Account(Acctid,Acctid_2,AcctName,Balance)

FOREIGNKEY(Actdid_2)REFERENCES Account

It is Self-Referencing

6. Convert the ERD shown in Figure 3 into tables. List the conversion rules used and table design. For each table, you should list the primary key, foreign keys, other columns, and NOT NULL constraints for foreign keys if necessary. You do not need to write CREATE TABLE statements.

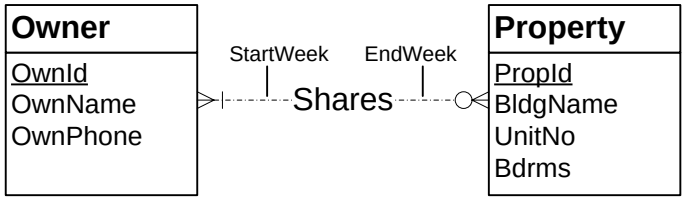

Figure 3: ERD for Conversion Problem 6

RESULTS AFTER CONVERSION

Owner(OwnId,OwnName,OwnPhone)

Shares(OwnId,PropId,StartWeek,EndWeek)

FOREIGNKEY(OwnId)REFERENCES Owner

FOREIGNKEY(PropId)REFERENCES Property

Property(PropId,BridgName,UnitNo,Bdrms)