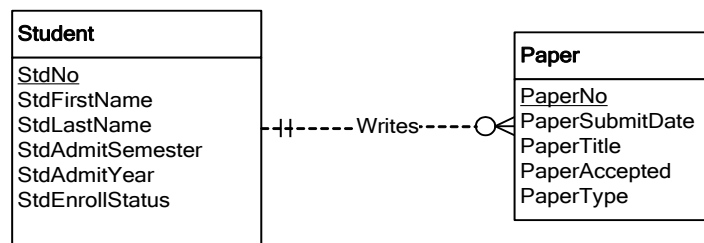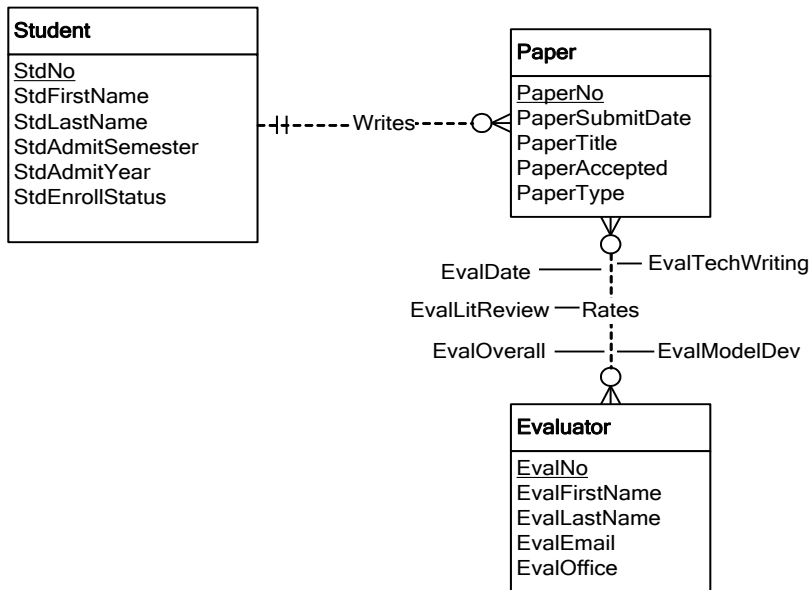# Module 6 Exercise Solutions

The exercise problems in Module 6 provide practice using the Crow's Foot notation. You are encouraged to use the ER Assistant or other drawing tool to complete the exercise problems in module 6. If you want to use the ER Assistant, I encourage you to watch at least the first part of the software demonstration about the ER Assistant, available in module 7.

1. Draw an ERD containing *Student* and *Paper* entity types connected by a 1-M relationship. The *Student* entity type should have attributes for *StdNo* (primary key), *StdFirstName*, *StdLastName*, *StdAdmitSemester*, *StdAdmitYear*, and *StdEnrollStatus* (full or part-time). The Paper entity type should have attributes for *PaperNo* (primary key), *PaperTitle*, *PaperSubmitDate*, *PaperAccepted* (yes or no), and *PaperType* (first, second, proposal, or dissertation). Add a 1-M relationship from *Student* to *Paper*.

2. Extend the ERD from problem 1 with an *Evaluator* entity type and an M-N relationship between *Paper* and *Evaluator*. The Evaluator entity type should have attributes for *EvalNo* (primary key), *EvalFirstName*, *EvalLastName*, *EvalEmail*, and *EvalOffice*. The M-N relationship should have attributes for *EvalDate*, *EvalLitReview* (1 to 5 rating), *EvalProbId* (1 to 5 rating), *EvalTechWriting* (1 to 5 rating), *EvalModelDev* (1 to 5

rating), *EvalOverall* (1 to 5 rating), and *EvalComments*.

Student
StdNo
StdFirstName
StdLastName
StdAdmitSemester
StdAdmitYear
StdEnrollStatus

—────Writes────

Paper
PaperNo
PaperSubmitDate
PaperTitle
PaperAccepted
PaperType

EvalDate ────── ─── EvalTechWriting
EvalLitReview ──Rates
EvalOverall ────── ───EvalModelDev

Evaluator
EvalNo
EvalFirstName
EvalLastName
EvalEmail
EvalOffice

3. Transform the M-N relationship from problem 2 into an associative entity type and

    identifying relationships.

Student
StdNo
StdFirstName
StdLastName
StdAdmitSemester
StdAdmitYear
StdEnrollStatus

—────Writes────

Paper
PaperNo
PaperSubmitDate
PaperTitle
PaperAccepted
PaperType

Evaluation
EvalDate
EvalLitReview
EvalTechWriting
EvalProbId
EvalModelDev
EvalOveral

────EvaluatedBy
────Evaluates

Evaluator
EvalNo
EvalFirstName
EvalLastName
EvalEmail
EvalOffice