ER Modeling Problem
JDBC Problems
ER Practice Problem

- Create a student records database. The database should store information about students, faculty, departments, courses and course sections. Associated with each student is a unique id, a name, a major and an email address. Associated with each faculty member is a unique id, a name and an email address. Departments have a unique department code, a unique name, a location and a phone number. Course information includes a unique course number, a course name, the credit hours for the course. Faculty are members of one department. Each course is associated with one department. Each section is a section of one course. Section information includes a unique section number, a semester, a year, a start time, an ending time and a room. Each section is taught by one faculty member. Students can enroll in many sections. Students are assigned a grade for each Section in which they are enrolled. A grade is one of the following: A, AB, B, BC, C, D, F, or I.
JDBC Practice Problem

• Assume con is a Connection object to the Library database. Suppose firstname is a string variable that has been assigned a value. Write a Java/JDBC code segment that prints to standard output the last name of customers whose first name matches the value referenced by firstname.
JDBC Practice Problem

• Assume con is a Connection object to the Library database. Suppose anum, afirst, and alast are string variables that have been assigned values. Write a Java/JDBC code segment that inserts a new row into the Author table such that aid, first, and last have the values referenced by anum, afirst, and alast respectively.
Prepared Statement Example

//Assume con references a Connection object and that aid is an int variable

PreparedStatement s = con.prepareStatement("select first, last from Author where aid = ?");
s.setInt(1, aid);
ResultSet r = s.executeQuery();
while (r.next()) {
    System.out.println(r.getString(1) + " " + r.getString(2));
}

//Do I need a loop?
JDBC Practice Problem

- Suppose filename is a string variable that references the name of a text file. The file contains lines of information about authors that should be inserted into the authors table. Each line contains fields for aid, first and last. The fields are separated by colons. For example

  123:Evelyn:Waugh

Write a code segment that uses a PreparedStatement to insert the data in the file into the Author table.