

# Produce an ER Diagram

Monday, August 29, 2016 12:18 PM

Due Date: See Course Calendar for the due date.

Use the slide sets and notes from the textbook to attempt this exercise.

## Instructions

Using the **UML Class Diagram** notation, *create* an ERD that can be implemented for a medical clinic, using the following **business rules**: (start with the data modeling part 1 slide set as a reference)

- ♦ A patient can make many appointments with one or more doctors in the clinic, and a doctor can accept appointments with many patients. However, each appointment is made with only one doctor and one patient.
- ♦ Emergency cases do not require an appointment. However, for appointment management purposes, an emergency is entered in the appointment book as “unscheduled.”
- ♦ If kept, an appointment yields a visit with the doctor specified in the appointment. The visit yields a diagnosis and, when appropriate, treatment.
- ♦ With each visit, the patient’s records are updated to provide a medical history.
- ♦ Each patient visit creates a bill. Each patient visit is billed by one doctor, and each doctor can bill many patients.
- ♦ Each bill must be paid. However, a bill may be paid in many installments, and a payment may cover more than one bill.
- ♦ A patient may pay the bill directly, or the bill may be the basis for a claim submitted to an insurance company.
- ♦ If the bill is paid by an insurance company, the deductible is submitted to the patient for payment.

You may find a **UML Class Diagram** reference with **Figure 2.3** in the textbook



Use the following checklist for proper submission

- ☐ 1. **Draw by hand** all elements of the diagram. DO NOT attempt to use VISIO or a similar program.
  - ☐ a. Entity Name
  - ☐ b. Attributes, indicating Primary Keys and Foreign Keys
  - ☐ c. Relationship Connectivity
  - ☐ d. Relationship Cardinality
- ☐ 2. **Scan to PDF** (no pictures!) hand drawing of the diagram ([see example](#))
  - ☐ a. You can use Tiny Scanner [iOS](#) | [Android](#) that will create the PDF for you.
  - ☐ b. Use any MFP on campus to scan to email to a PDF.
- ☐ 3. **Paste** the image/picture of the diagram into a Microsoft Word document
- ☐ 4. Using page break, **create** the following **Title Page** at the top of the Word document. The information should be centered horizontally and vertically to the page
  - ☐ a. **Title**
  - ☐ b. **Student Name**
  - ☐ c. **Course and Section**
  - ☐ d. **Date and time** the drawing was completed
  - ☐ e. **Version** in the form of **v1, v2, v3** etc...
- ☐ 5. **Name** the document using the following convention
  - ☐ a. **<LastName-FirstName>-U325-ERD-<version, v1, v2 etc...>.docx** without the angle brackets

<>.

☐ b. **Example:** Walters-Grover-U325-ERD-v1.docx

☐ 6. Upload only a **single Word document** to the **assignment** on Blackboard

There will be a **grading rubric** applied so that you can see how your grade will be influenced by various assessment factors and ultimately understand your mistakes--after which you may revise and resubmit for a better grade. The rubric is indicated by a box at the top of the blackboard assignment.



Rubric Example Icon

# Solution Example

Tuesday, May 9, 2017 9:13 AM

