

Quiz 1 ER Diagrams

Due Sep 6 at 10:30am

Points 100

Questions 1

Available Sep 6 at 10am - Sep 6 at 10:30am 30 minutes

Time Limit None

Instructions

This quiz is timed to 30 minutes. You may draw the diagram on paper by hand and then take a photo and submit in canvas. Alternatively you may draw the diagram using PowerPoint, Paint or other software and submit the resulting file. Save your file as jpeg, png or pdf so they can be opened by the TA. Please make sure to pay attention to the time. At the end of the 30 minutes your answers will be submitted as they are.

Having an issue with the quiz? Please send an email to the course staff (rkheni@wpi.edu) (<mailto:cvieira@wpi.edu>) with "CS542 Quiz" included in the subject line any time during the quiz. If you require help through zoom then please join the zoom link <https://wpi.zoom.us/j/2094237642> <https://wpi.zoom.us/j/2094237642> <https://wpi.zoom.us/j/2063917648?pwd=VkZZOCtYb3dhOSjTi9KcWxkb0ZnUT09>.

This quiz was locked Sep 6 at 10:30am.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	28 minutes	89 out of 100

Score for this quiz: **89** out of 100

Submitted Sep 6 at 10:30am

This attempt took 28 minutes.

Unanswered

Question 1

89 / 100 pts

Design an ERD for the following Company-Product-Department database:

- Each employee has a unique employee ID, a name, a phone extension, and a salary.
- Each department has a unique name and the floor it is located in the building.

- An employee must work for exactly one department. Departments must have at least one employee.
- We want to ensure we are able to store the amount of salary spent by each department on their employees.
- One of the employees in a product department manages the department, but a department may be temporarily without a managing employee. An employee cannot manage more than one department.
- One of the employees in a department trains the other employees in the department. The employees have not been given the formal positions of trainer and manager. Those positions are corporate-level positions and outside of the department. Instead of using inheritance, use recursion to represent this.
- When an employee trains another employee, we need to keep track of the number of hours an employee is trained for and trains other employees for.
- Customers have a unique ID, a full name, and are assigned to a single employee who will provide support. Employees may or may not be assigned to one or more customers.
- Customers with questions about a product can call the department. The time for each call is recorded.
- When customers are provided support by employees, we need to ensure that the date, number of minutes spent assisting, and employee name are available for us to access.

Hint: It is possible to create multiple relationships between two entity sets.

****Make sure the primary keys and the relationships' cardinalities are very clear.**

Your Answer:

Quiz Score: **89** out of 100