

=====CIS 310 ASSIGNMENT 4=====

/\*Remember to fill out below section AND reflecting your name in file name.  
Great job to those who have been consistently doing so.

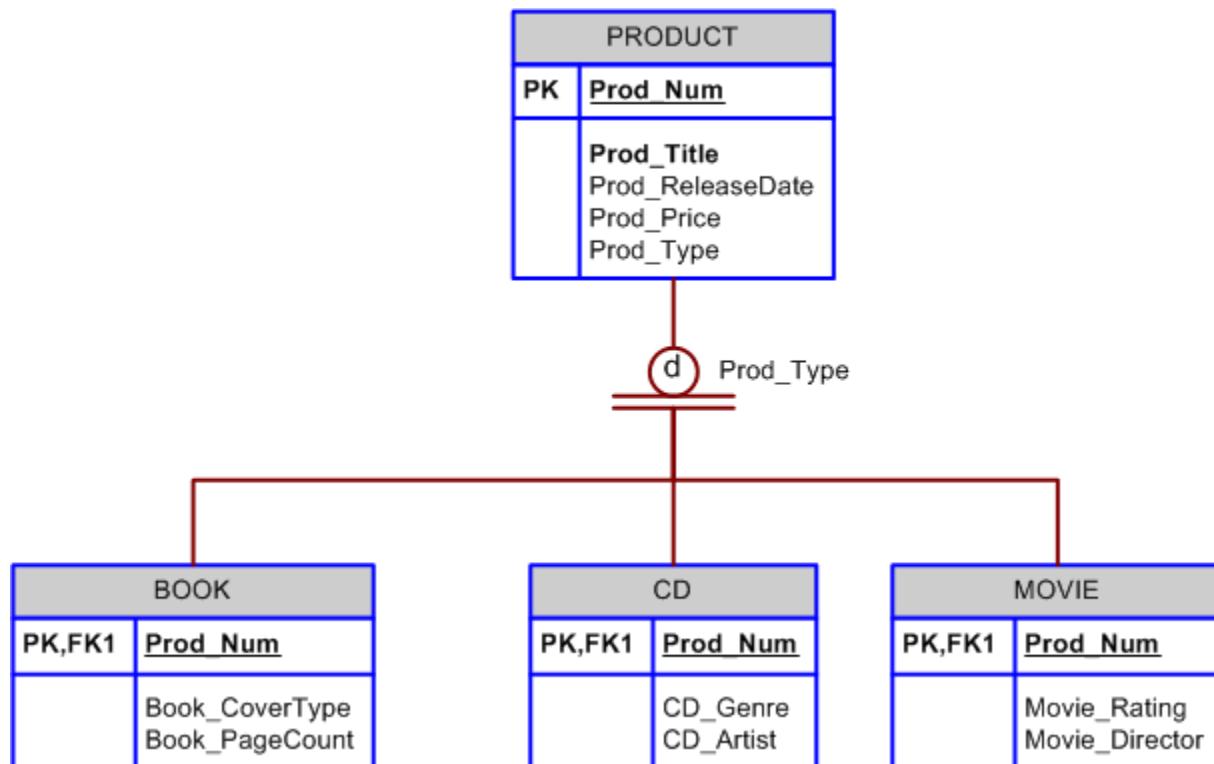
STUDENT NAME: JAWHARAH MUSED

STUDENT ID:

SUBMISSION DATE:

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Part 1. For below PRODUCT data model, answer the following questions (10 pts)



- a. List all of the attributes of a movie. Remember the inheritance nature between the Supertype and Subtype entities.

Prod\_Num  
Prod\_Title  
Prod\_ReleaseDate  
Prod\_Price

Prod\_Type

Movie\_Rating

Movie\_Director

b. Is it possible for a book to appear in the BOOK table without appearing in the PRODUCT table? Why or why not?

No, because Prod\_Num in book is a foreign key that references Prod\_Num in product and foreign keys have to match an existing primary key.

Part 2. Given the following business scenario, create a Crow's Foot ERD using a specialization hierarchy if appropriate. (20 pts)

Granite Sales Company keeps information on employees and the departments that they work in. For each department, the department name, internal mail box number, and office phone extension are kept. A department can have many assigned employees, and each employee is assigned to only one department. Employees can be salaried employees, hourly employees, or contract employees. All employees are assigned an employee number. This is kept along with the employee's name and address. For hourly employees, hourly wage and target weekly work hours are stored (e.g. the company may target 40 hours/week for some, 32 hours/week for others, and 20 hours/week for others). Some salaried employees are salespeople that can earn a commission in addition to their base salary. For all salaried employees, the yearly salary amount is recorded in the system. For salespeople, their commission percentage on sales and commission percentage on profit are stored in the system. For example, John is a salesperson with a base salary of \$50,000 per year plus 2-percent commission on the sales price for all sales he makes plus another 5 percent of the profit on each of those sales. For contract employees, the beginning date and end dates of their contract are stored along with the billing rate for their hours.

