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--============================CIS 310 ASSIGNMENT 4=====================
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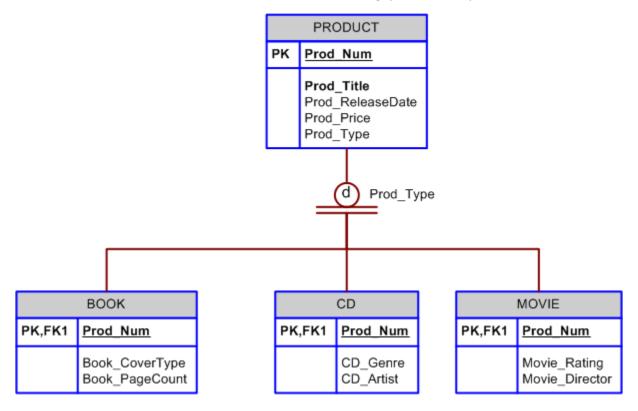
STUDENT NAME: Charles Degboe

STUDENT ID: 5491133

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_RelaseDate, 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, it wouldn't be possible for a book to appear in the BOOK table without appearing in the PRODUCT table because the BOOK table relies or inherit on the PRODUCT table for information. PRODUCT is the supertype entity, while BOOK is the subtype entity that is inheritance of PRODUCT.

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.

--* Below hints are in font color white, **to reveal, select and change their font colors**.
You get the best practice by **not** using the hints, or use them **after** your design, to double-check your work.

--Hint 1 on overall structure of the ERD:

--Hint 2 remember to use keys to establish the special "is a" relationship:

--Hint 3 the 2 dimensions of supertype subtype relationships:

--Hint 4 How many entities should you have:

--Hint 5 I am still stuck, what should be my first step after reading the prompt?

--Hint 6 What's next?

Home   Insert   Draw   View

Calibri   11   Heading 1   Heading 2   ☑ To Do   ★ Important   Dictate

My Notebook @ University of...

| Quick Notes | db |
| db | A4 |

EMPLOYEE
- PK EMP_ID
- EMP_NAME
- EMP_ADDRESS
- FK DEPT_NAME

DEPARTMENT
- PK DEPT_NAME
- DEPT_MAILBOXNUMBER
- DEPT_PHONE_EXTENSION

D   **EMP_TYPE**

HOURLY
- PK FK EMP_ID
- HOURLY_WAGE
- HOURLY_TARGETHOURS

SALARY
- PK FK EMP_ID
- Yearly Salary

Salary_sales

CONTRACT
- PK FK EMP_ID
- Con_StartDate
- Con_End_Date
- Con_BillingDate

SALESPERSON
- PK FK EMP_ID
- SALES_COMMISSIONSALES
- SALES_COMMISSIONPROFIT

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