## **CECS 323 HOMEWORK: CATEGORIES**

**OBJECTIVE:** Get some experience with a more complex sort of categorization.

**INTRODUCTION:** Your task is to design an HR database that deals with the following business rules:

- Every employee has a first and last name. The combination of first and last name does not uniquely identify the employees.
- Only female employees have a maiden name.
- Employees can be part-time, consultants, or full-time salaried.
  - The part-time employees:
    - Have a set schedule of hours that they work each week. For instance, an employee might work 7-10AM on Mondays, 2-4 PM on Wednesdays and 10-noon on Fridays.
    - Have a fixed hourly wage
  - Consultants:
    - Also have an hourly rate, but no fixed schedule.
    - For each week that they work for us, we just keep track of the total hours that they worked that week.
    - Each consultant works for some firm who then hires them out to us. A given consultant can work for several firms and a given firm has several consultants. When we hire a given consultant, we hire them from one of the firms that the consultant works for.
  - Full-time salaried employees:
    - Have an annual wage that they earn.
    - We do not track their scheduled work hours at all, nor do we track the hours that they do work.
    - Each salaried employee can have one or more insurance policies through the company. Each policy could be: life, disability, or medical. Each policy has a carrier associated with it.
      - Life-insurance policies have a death benefit amount.
      - Disability-insurance policies carry the amount that they will pay out each week, the week number that they start (how long the person has to wait before they start collecting disability) and the number of weeks that the policy will pay as a maximum.
      - Medical policies capture the copayment value for the Emergency Room, as well as regular doctor's visits.
        The two copayment values often differ.

**PROCEDURE:** Model the above.

**WHAT TO TURN IN:** The UML model, the class definitions, and the corresponding Relation Scheme diagram. Also, your team's filled out collaboration document. You can find a template for that <u>here</u>.