For each of the following problems, Create a conceptual data model, consisting of entity sets, relationships, attributes, and so on, that can be used to answer questions similar to the questions given. Indicate cardinalities.

Questions:

1. **Assume the following problem is for a model for a university environment.**

Which students are majoring in history? In English?

2. **Assume the following problem is for a model for a university environment.**

How many faculty members are assigned to the math department? What are their names? Who is assigned to the music department?

(Note: "math" and "music" are just examples of departments. Your model should also be able to answer these questions if, say, sociology, political science, or mechanical engineering were substituted for math or music.)

3. **Assume the following problem is for a model for a university environment.**

Which faculty members are teaching courses in sociology? Which courses are they teaching?

4. **Assume the following problem is for a model for a retailer.**

Which products are priced above $200? Which of these have a cost under $150? Which come from manufacturers in the Midwest? What are the names of these manufacturers?



