Company ABC is a software development company. The three Departments within  the company are Sales, Administration, and Programming. Mohamed is the manager of programming department. Ahmed and Aly are programmers. Ahmed and Aly are brothers. They have only one sister, called Eman. They live in Cairo. Eman works as a sales person in XYZ compay.

Describe required relationships between classes of the developed ontology

**Person, city, department, company**

**Person livin city, work-at company**

**Department part-of company**

**Person sibling-of person**

Identify the type of used property

* **Simple property such as:** Person name, Department name, etc
* **Complex property such as**: Person lives-at place

Person work-at company

1. Identify whether your developed ontology would contain the following: **[3 marks]**
2. **disjoint classes**

company, person - department, person - brother, sister

1. **Cardinality** has-sister ,work-at, live-at Maximum cardinality 1

Has-brother Minimum cardinality 1

1. **domain, range**

work-at

Domain person

range company