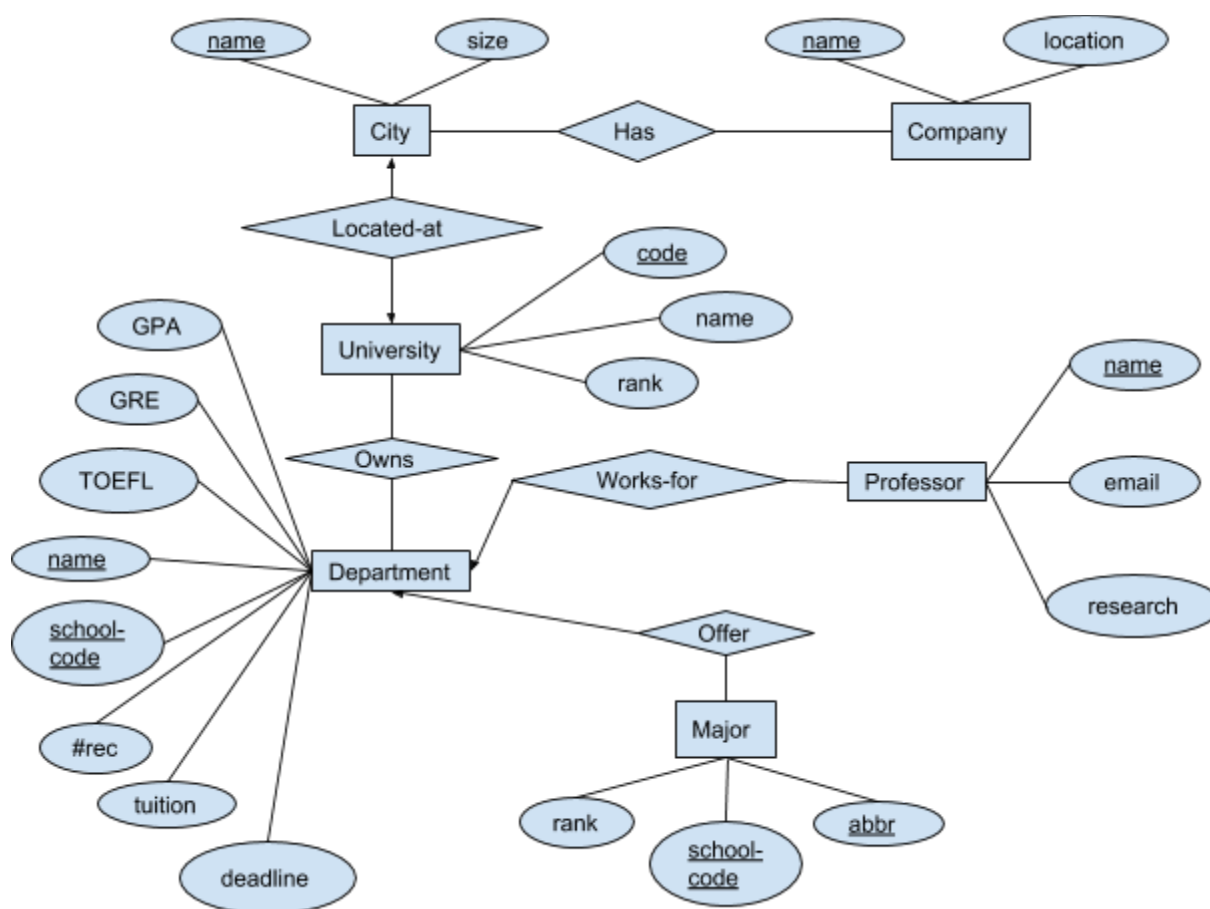


## Description

This database application is a graduate school admission guide. It involves six entity sets and five relationship sets. University, Department, Major, Professor, City, and Company are all the entity sets. Applying for a master degree program require us to put time and effort into it. This process is very cumbersome. Choosing a dream school depends on the rank, location, professors, and tuition of the school, as well as the job situation in the future. Universities will also have some solid standard for applicants. Therefore, organizing data, and storing data without redundancy into relations in the database will be useful for doing queries in the future.

## E/R Diagram



**Relation Schemas**

University(code, name, rank)

- $\text{code} \rightarrow \text{name, rank}$
- no MVD

Department(school-code, name, GPA, GRE, TOEFL, #rec, tuition, deadline)

- $\text{school-code, name} \rightarrow \text{GPA, GRE, TOEFL, \#rec, tuition, deadline}$
- $\text{school-code, name} \twoheadrightarrow \text{GPA, GRE, TOEFL, \#rec, tuition, deadline}$

Major(school-code, abbr, rank)

- $\text{school-code, abbr} \rightarrow \text{rank}$
- no MVD

Professor(name, email, research)

- $\text{name} \rightarrow \text{email, research}$
- no MVD

City(name, size)

- $\text{name} \rightarrow \text{size}$
- no MVD

Company(name, location)

- no FD
- no MVD

Owns(code, department-name)

- no FD
- no MVD

Offer(department-name, abbr, code)

- no FD

Works-for(department-name, professor-name)

- professor-name  $\rightarrow$  department
- no MVD

Located-at(code, city-name)

- code  $\rightarrow$  city-name
- no MVD

Has(city-name, company-name)

- no FD
- no MVD