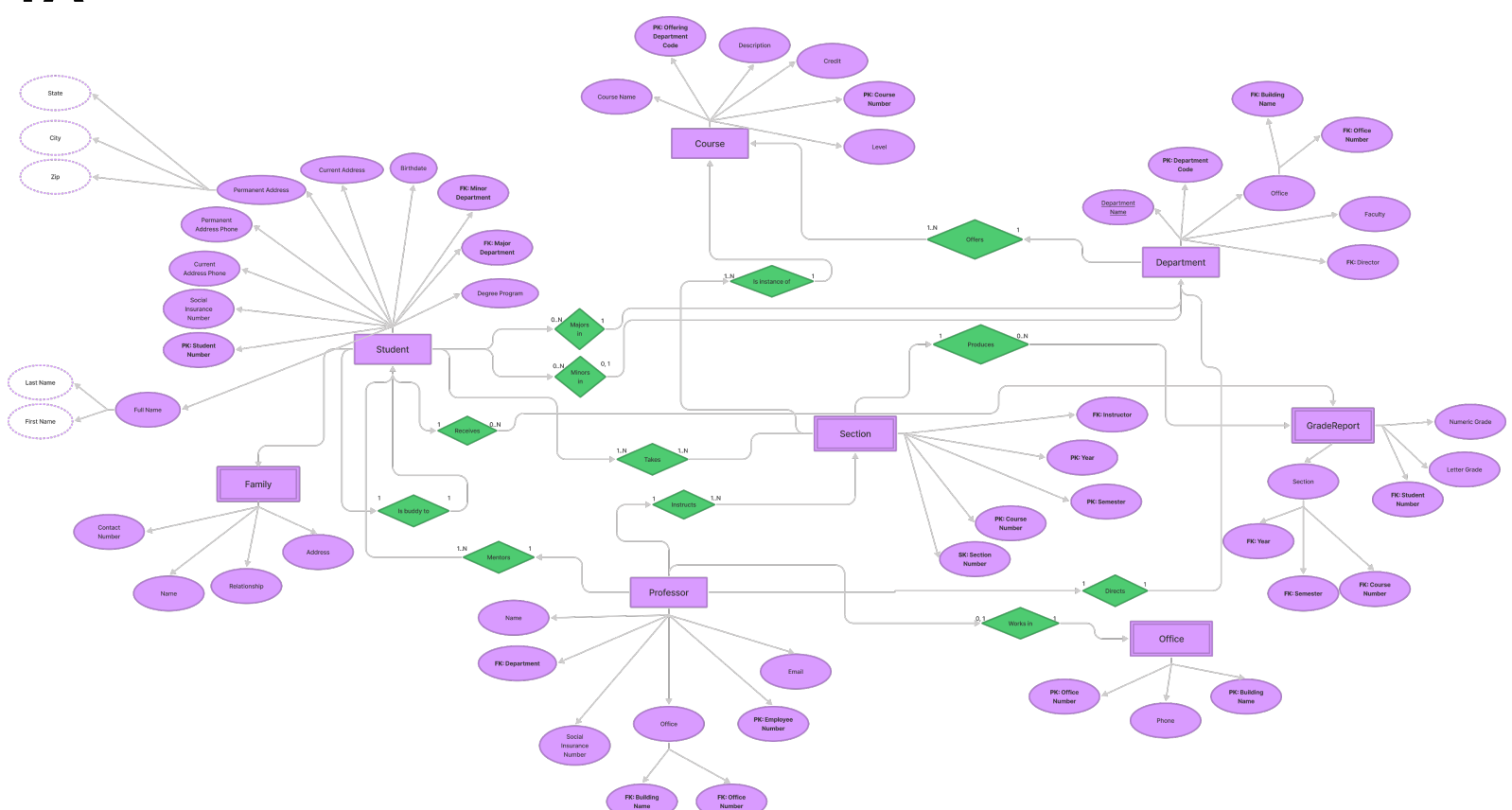


# 1A



# Assumptions

# Professor

- A professor's phone extension is equivalent to the office phone of their department
- A professor's email is unique
- A professor instructs at least one section
- A professor's unique number is unique

Office

- An office contains a single professor at most
- An office's existence depends on a professor working there

## Department

- Every department name is unique

## GradeReport

- A grade report's existence depends on its associated student and section's existence

## Student

- A student is taking at least one section

## Section

- A section can have no associated grade reports
- A section's existence depends on its associated course's existence

# 1B

## Student

- A student can have one or more buddies.

## Office

- An office must contain at least one professor

## 2A

# Assumptions

# Degree

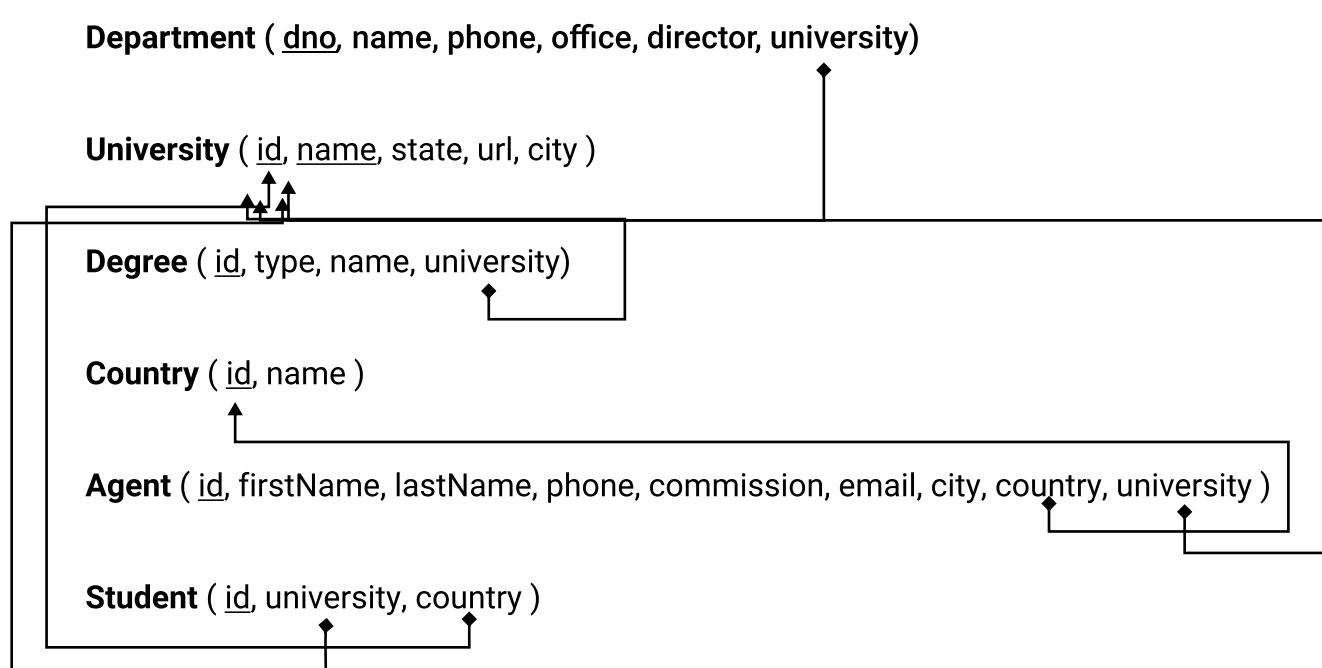
- Degrees must reference its associated university

## University

- Every university has at least one department

## Student

- Every university keeps a set of unique identifiers for its students. Thus, there can be two students with the same ID from different universities.



## 2C

The relations in 2B are in 3NF because each table has its own unique column of identifiers. It would not be possible to determine a given column based on any other property in the tables.