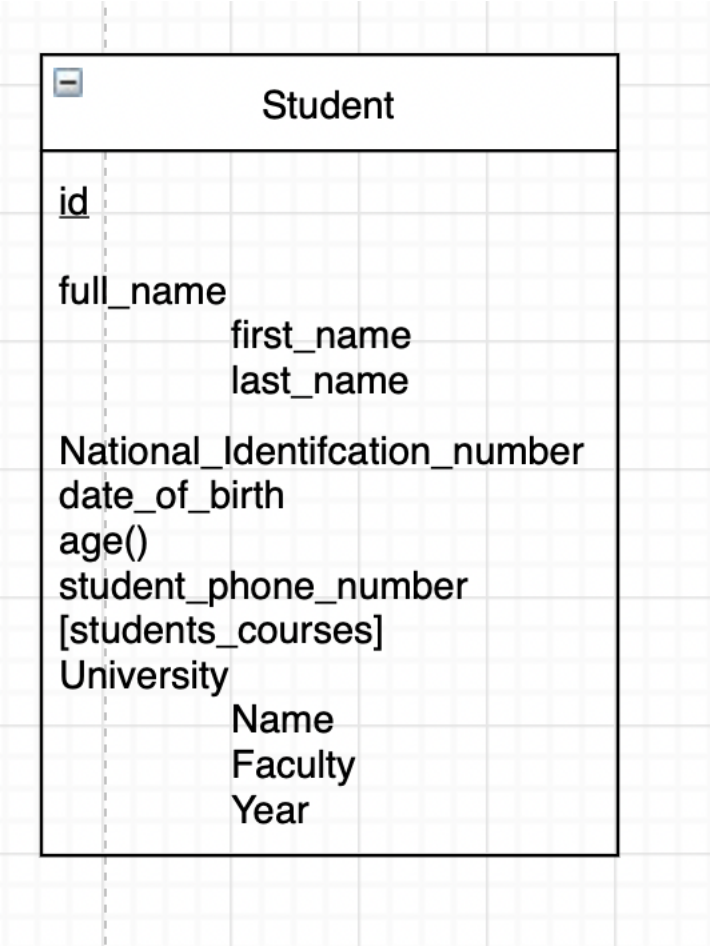
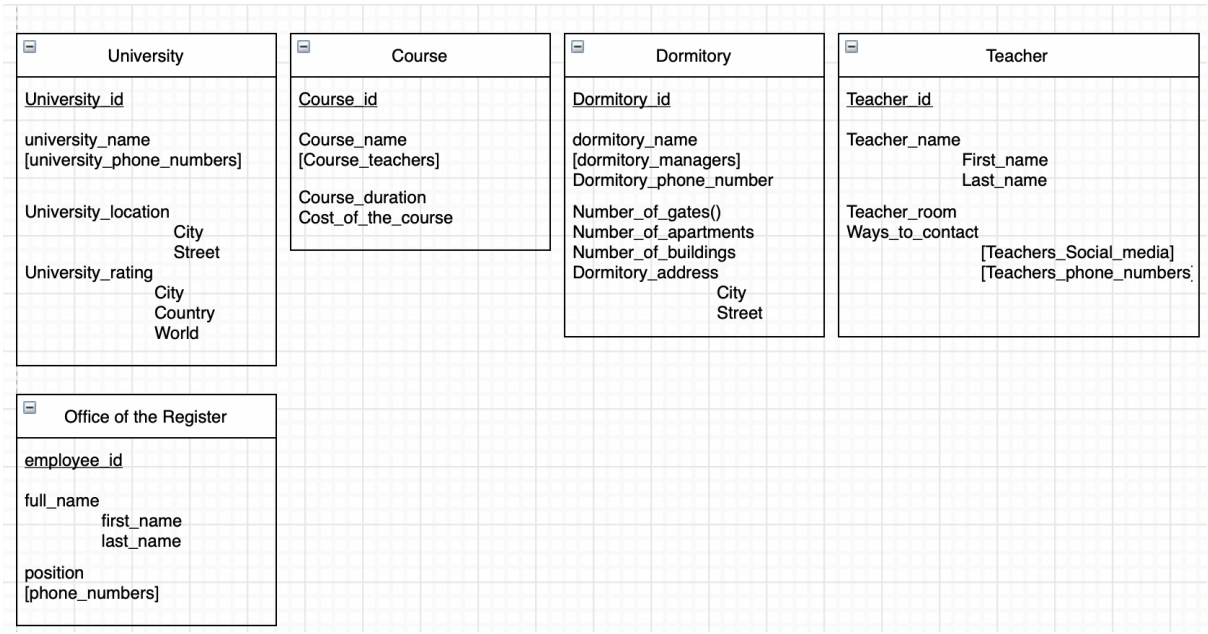
1) A) What are the main phases in the database design?
There are 3 basic phases of the database design: conceptual design, the logical design and physical design. The conceptual design provides a fully detailed picture of the enterprise. In the logical design part, the designer maps the high-level conceptual schema onto the implementation data model of the database system. Finally, in the physical-design part, the designer uses the database schema where physical features of the database are specified.
B) What is the entity-relationship (ER) data model?
It is an enterprise schema that shows the logical structure of the database.

2) A)



B)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Course_duration
Cost_of_the_course
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Number_of_apartments
Number_of_buildings
Dormitory_address
City
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Teacher_id
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First_name
Last_name
Teacher_room
Ways_to_contact
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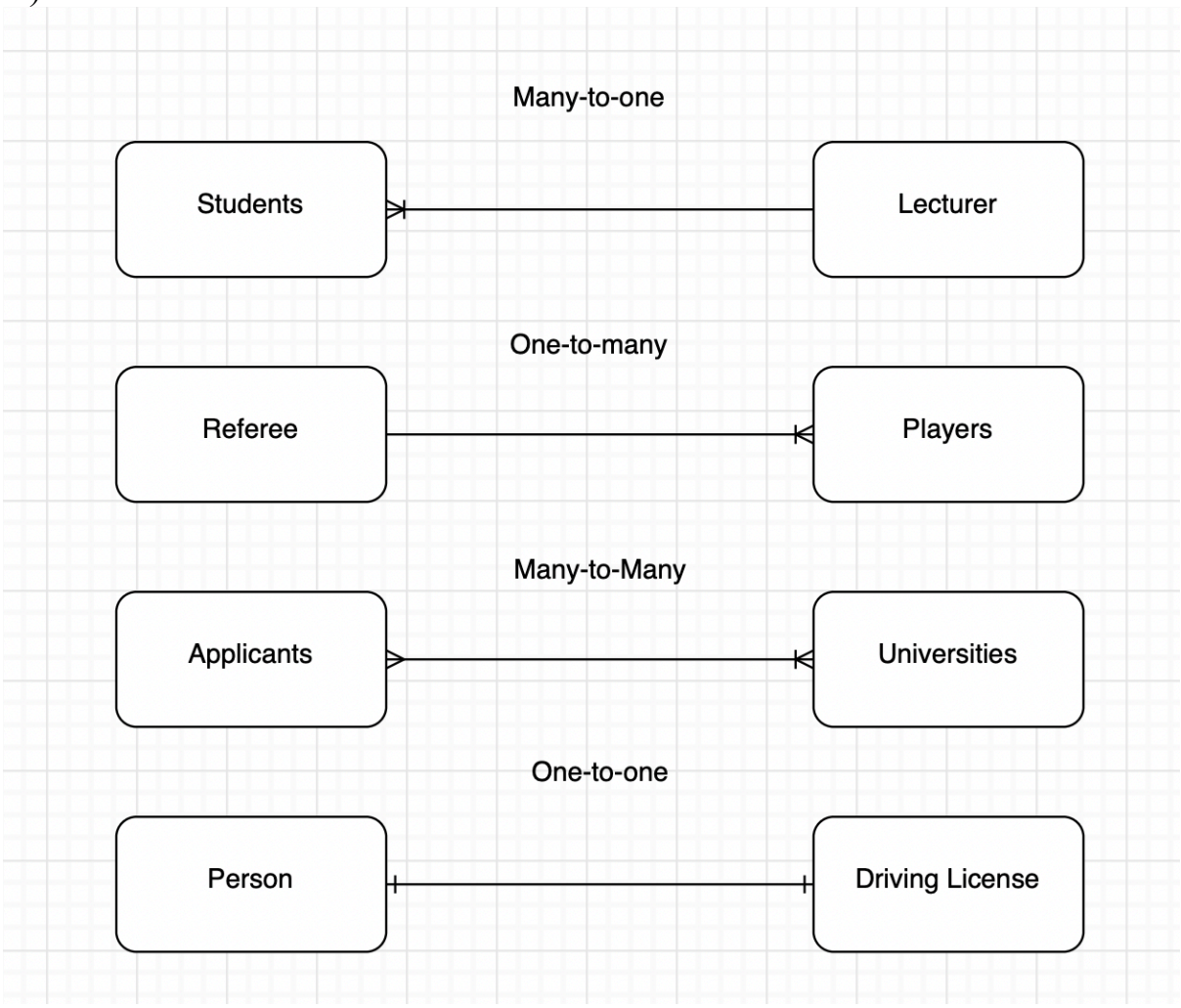
employee_id
full_name
first_name
last_name
position
[phone_numbers]

3) A)


Many-to-one
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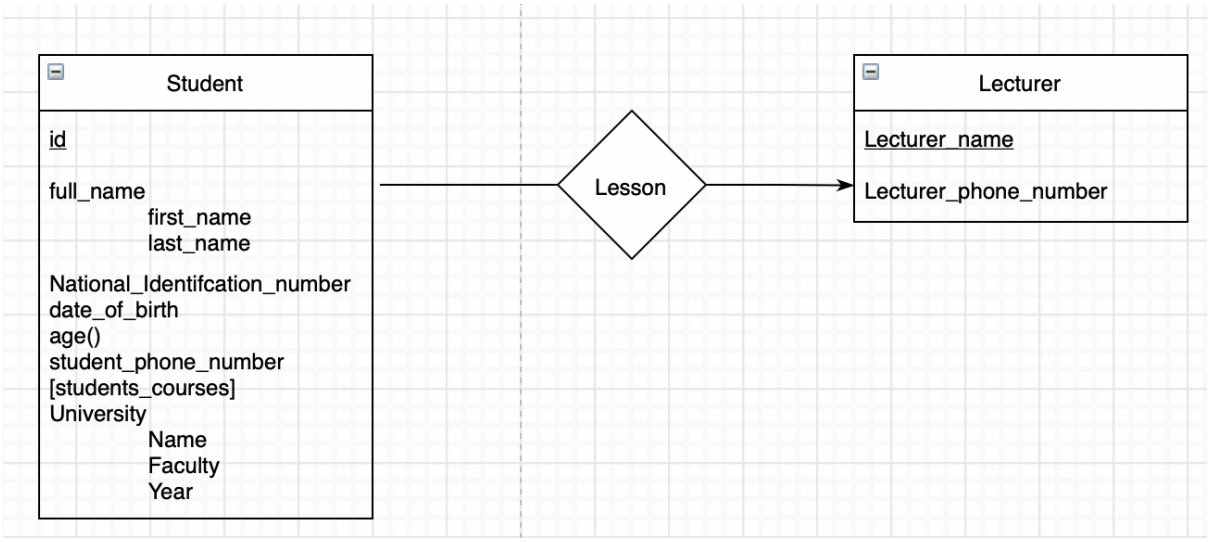
Lecturer
One-to-many
Referee
Players
Many-to-Many
Applicants
Universities
One-to-one
Person
Driving License

B)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Faculty
Year
Lesson
Lecturer
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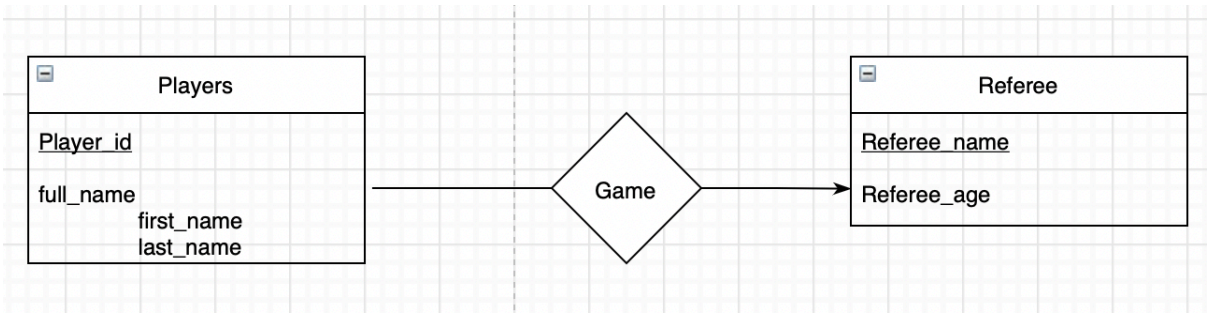
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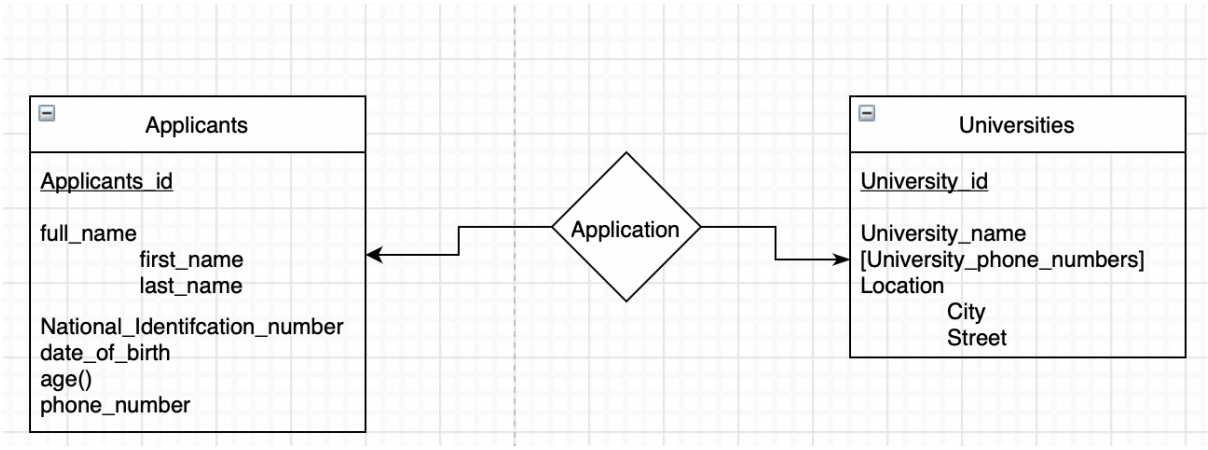
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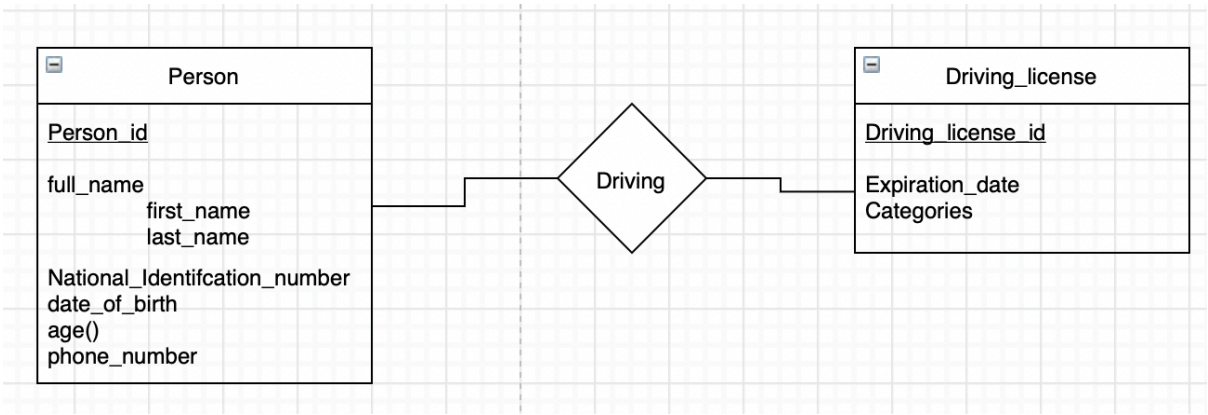
Street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Driving_license
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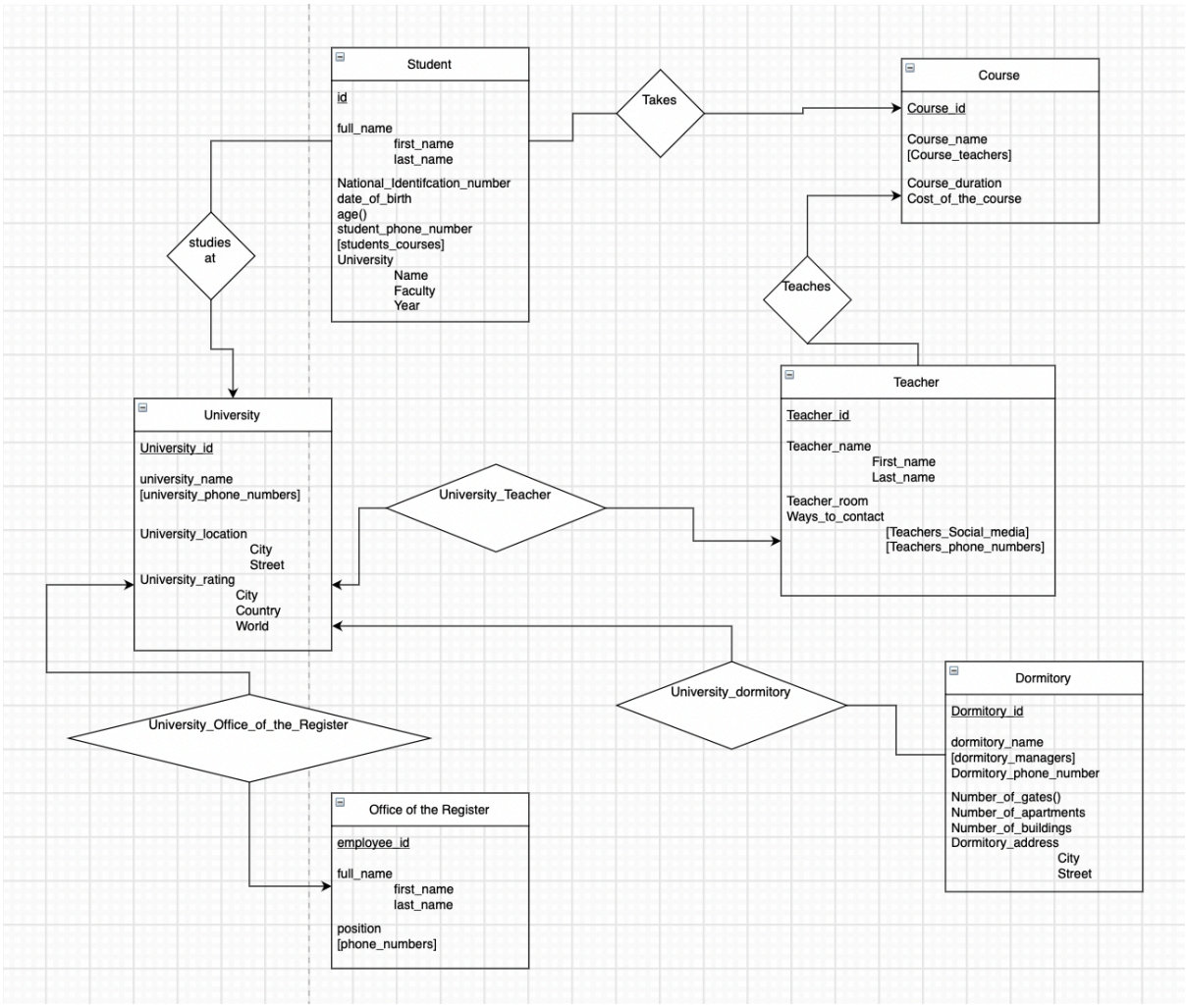
Expiration_date
Categories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Faculty
Year
Takes
Course
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Course_name
[Course_teachers]
Course_duration
Cost_of_the_course
studies at
Teaches
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Teacher_id
Teacher_name
First_name
Last_name
Teacher_room
Ways_to_contact
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University_rating
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Number_of_buildings
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Office of the Register
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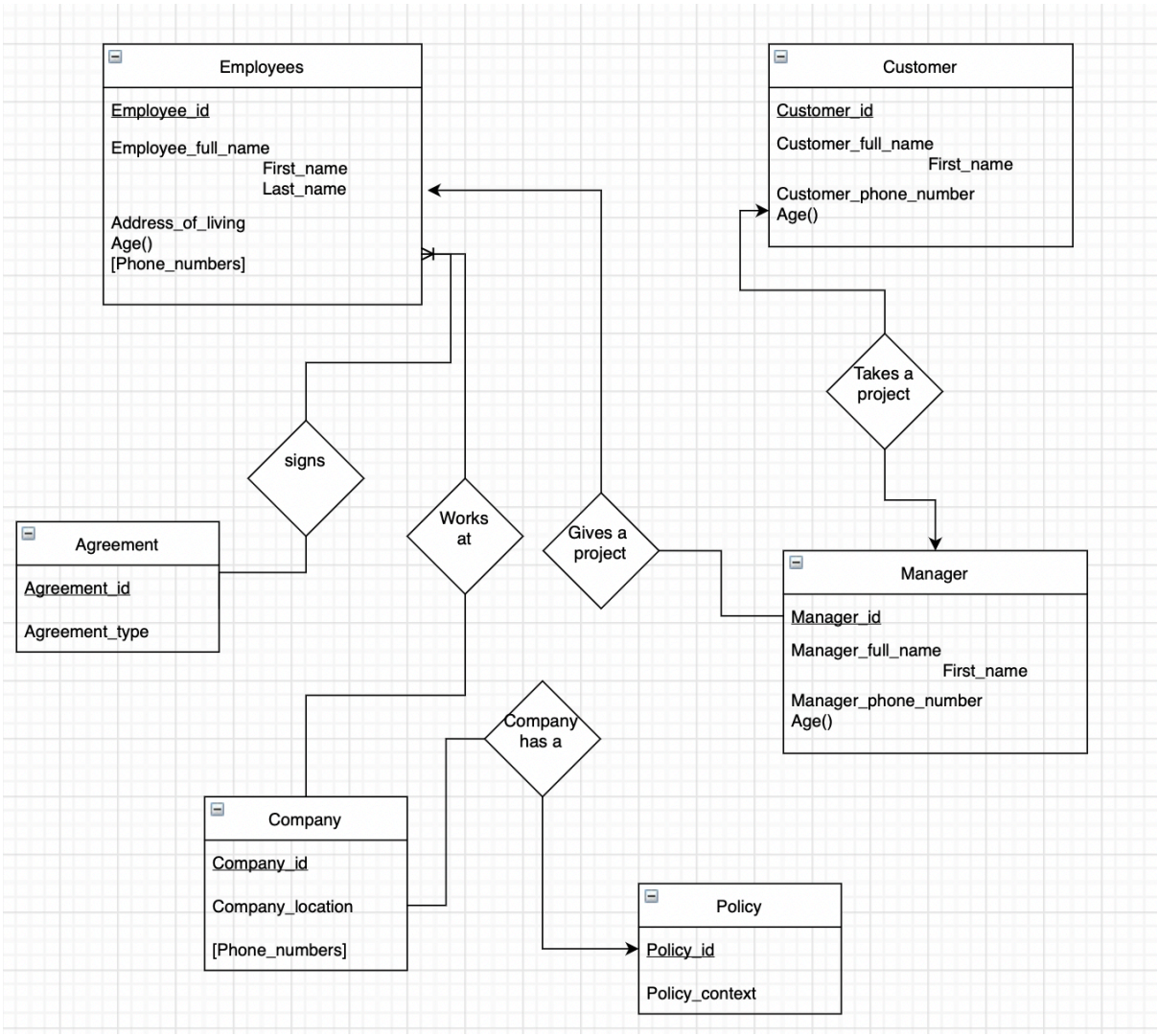
first_name
last_name
position
[phone_numbers]

4)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Customer_phone_number
Age()
Takes a project
signs
Works at
Gives a project
Agreement
Agreement_id
Agreement_type
Manager
Manager_id
Manager_full_name
First_name
Manager_phone_number
Age()
Company has a
Company
Company_id
Company_location
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Policy
Policy_id
Policy_context