

# Assignment

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**Business Scenario : A company with different employees of different age groups having different salary and are working in different departments.**

Let's break down the scenario into entities, relationships, attributes, and cardinalities:

## **Entities**

- ✓ Employee
- ✓ Department

## **Attributes**

1. Employee:

- Employee ID (PRIMARY KEY)
- Name
- Age
- Salary
- Department ID (FOREIGN KEY referencing Department)

2. Department:

- Department ID (PRIMARY KEY)
- Department Name

## **Relationships**

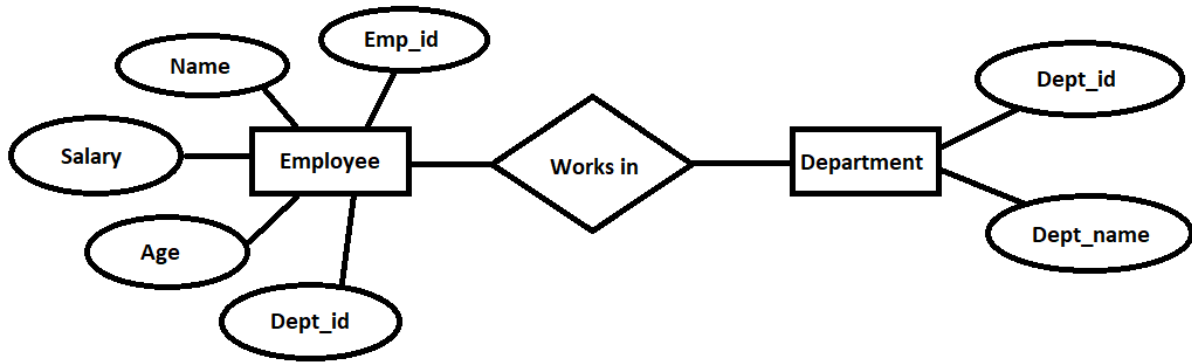
1. Works\_in:

- An employee works in a department.

Now, let's add cardinalities to the relationships:

- Each employee works in one department.
- Each department can have multiple employees.

With this information, we can now create the ER diagram:



This ER diagram is normalized up to the third normal form, as there are no repeating groups and all attributes are dependent on the primary key. Each entity represents a distinct concept, and there are appropriate relationships between entities.

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