

# ER Diagram Exercise 1

1. Find out the entity type

- Employee
- Department
- Project
- Dependent (Weak Entity Type)

2. Find out the relationships

- Manages
- Work pf
- Supervision
- Controls
- Dependents of (identifying relationship type)

3. Describe the ER Diagram in words.

The ER diagram describes how entities interact. The entity describes things that exist either physically or logically as a department. The diagram is structured by these relationships: manages, work of, supervision, controls, and dependents of.

The department has a name, contact number, and location. Its multivalued attribute means that a department has many locations and numbers. It is a derived attribute. The department connects with many entities in the diagram. As the way a department connects in two relationships: Manages in a one-to-one relationship has a start date attribute, and the other relationship is works\_for, which connects in a one-to-many relationship.

Department has a one-to-many relationship with project that is control. It means a department has many projects. Projects work on employees in a many-to-many relationship. Name, number, and location are attributes of projects. The works\_on relationship has an attribute hours. The project is completed before a time.

Dependent is a relationship to employees in the dependents\_of relationship. It is a weak entity that is not as important as the department. Attributes of dependents are name, sex, birthdate, and relationship. One employee has many dependents, so it is a one-to-many relationship.

Employee relates with another employee (supervisors). Relationship with supervisors connects with supervisions. This relationship is one-to-many, and the employee is an important attribute and has many attributes including name, birthdate, sex, address, number, and SSN. The name has two attributes: first name, last name, and middle name.

All this things structure as get full er diagram of deoartment.