



1.Find out the entity type

- Employee(Name, Ssn , Address , Bdate, Salary, Sex) - Strong Entity
- Department ( Name ,Number, Locations ) - Strong Entity
- Project ( Name , Number , Location ) - Strong Entity
- Dependent (Name, Sex, Birth\_date, Relationship) - Weak entity

2.Find out the relationships

- Works for
- Manages
- Controls
- Works On
- Dependents of - Identifying Relationship

### 3. Describe the ER Diagram in words

#### 1. One to Many

Many employees work for one department

All departments have employees.

Department has 4 Attributes

Name & Number are unique data to identify a department

Locations : This will have different other data. A department can have different locations.

No. of employees: This data will be taken from Employee data

Employee has 6 Attributes-Name further has fname, mname, lname.

Address, Salary, Sex, Bdate.

Ssn is a specific data to identify a student.

#### 2. One To One

Employee manages a department

All departments will be managed by employees. (one department will be managed by an employee)

It also has a data of when the employee started working in that department.

#### 3. Many to Many

Employee works on Project

More than 2 employees can work on projects.

The employees project is based on hour count.

Project has 3 Attributes-Name & Number are specific data which unifies the project.

Project has different locations.

#### 4. One to Many

A department controls many project

All projects will be controlled by department.

#### 5. One to Many

An Employee depends on many dependent

Dependent has 4 attributes-Name, Sex, Birth\_date & Relationship are not a specific data to differentiate.

#### 6. One to Many

An Employee supervises many employees

The higher level employee of an organization can supervise the lower level employees using his position.