



1. Find out the entity type

Strong Entity - EMPLOYEE(Ssn, Bdate, Fname, Minit, Lname, Address, Salary, Sex)

Strong Entity - DEPARTMENT(Name, Number, Number_of_employees)

Strong Entity - PROJECT(Name, Number, Location)

Weak Entity - DEPENDENT(Name, Sex Birth_date, Relationship)

2. Find out the relationships

Employee relates as works_for with Department many to one relationship.

Employee relates as manages with Department one to one relationship.

Employee relates as work_on with Project many to many relationship.
Project relates as controls with Department many to one relationship.
Employee weak relates as dependents_of with Dependent one to many relationship.

3. Describe the ER Diagram in words

There are four entities.

1. EMPLOYEE - Name , Bdate , Address , Salary , Ssn , Sex
Primary Key - Ssn
2. DEPARTMENT - Name, Number, Number_of_employees, Locations(Weak attribute)
Primary Key - Name, Number
3. PROJECTS - Name Number, Location
Primary Key - Number, Name
4. DEPENDENT - Name , Sex, Birth_date, Relationship
Primary Key - Name

One department has many employees but one employee must work in one department this relationship one to many

One project have many employee but one employee work in many project relationship many to many

One department do many project but one project do one department relationship one to many

One employee work many dependent but one employee one dependent relationship one to many (weak entity)