



1. Find out the entity type

EMPLOYEE (Ssn, Bdate, Name, Address, Salary, Sex) - Strong Entity

DEPARTMENT (Name, Locations, Number) - Strong Entity

PROJECT (Number, Name, Location) - Strong Entity

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

2. Find out the relationships

EMPLOYEE WORKS_FOR DEPARTMENT --> Many to One

EMPLOYEE MANAGES DEPARTMENT --> One to One

EMPLOYEE WORKS_ON PROJECT --> Many to Many

DEPARTMENT CONTROLS PROJECT --> One to Many

EMPLOYEE DEPENDENTS_OF`DEPENDENT --> One to Many
EMPLOYEE SUPERVISION EMPLOYEE -- > One to Many

3.Describe the ER Diagram in words

There are four Entities in this diagram. EMPLOYEE Entity have 6 attributes.They are Ssn,Bdate,Name,Address,Salary,Sex.Ssn is a primary key for this entity.Fname,Minit and Lname are composite attributes of Name attribute.EMPLOYEE Entity have two full participations of DEPARTMENT Entity and PROJECT Entity and two partial participation of DEPARTMENT entity and EMPLOYEE Entity.Name,Number,Locations,Number_of_employees are attributes of DEPARTMENT Entity.Name and Number are primary keys of DEPARTMENT Entity.Locations is a multi value attribute of this Entity.Number_of_employees is a descriptive attribute of this entity.DEPARTMENT Entity has a full participation of EMPLOYEE Attribute and a partial participation of a PROJECT Entity.Name, Number,Location are Attributes of PROJECT Entity.Name and Number are primary keys of PROJECT Entity.PROJECT ENTITY has a full participation of DEPARTMENT Entity and a full participation of EMPLOYEE Entity.Name,Sex,Birth_Date,Relationship are attributes of DEPENDENT Entity.DEPENDENT Entityhas a full participation of EMPLOYEE Entity.