

1.Find out the entity type

Project (name , number , location)
Department(name , number , location)
Employee (Ssn , address , Bdate , name , salary , sex)
Dependent (name , sex , Birth_date , Relationship)

2.Find out the relationships

Employee work_on project
Employee manages department
Employee works_for department
Department controls projects
Employee dependents_of dependent
Employee supervision

3.Describe the ER Diagram in words

Employee works_for department

1. Many employee can work_for one department
2. One employee can only work for one department
3. All employee must work for one department
4. In every department at least one employee must work
5. Employee have name , address , salary, Bdate, sex ,Ssn
6. Employee can identify by Ssn
7. Name can be divisible as Fname , Minit , Lname
8. Department has location, name, number, number of employee
9. Department can be identify by name and number
10. Location has multivalue
11. Number of employee can be taken from name

Employee manages department

1. One employee can only manage on one department
2. Every department must managed by one employee
3. Management no need for all employee
4. Manages has start_date

Employee work_on project

1. All employee can work on many project
2. In project many employees can work
3. All employees must work on projects
4. In all project employees must work

5. Hours can be identify from work_on
6. Project has name , number , location
7. Project can identify by name and number

Employee depends_on dependent

1. one employee has able many dependent
2. One dependent only dependent_on one employee
3. All employee no need to have dependent bt every dependent must dependent on one employee
4. Dependent has name , sex , Birth_date , Relationship

Department controls projects

1. One department can control many project
2. One project can only control by one department
3. All department no need to control projects bt all project must control by one department

Employee supervision

1. One employee can be supervisor for many employee
2. One employee can be supervised by one employee