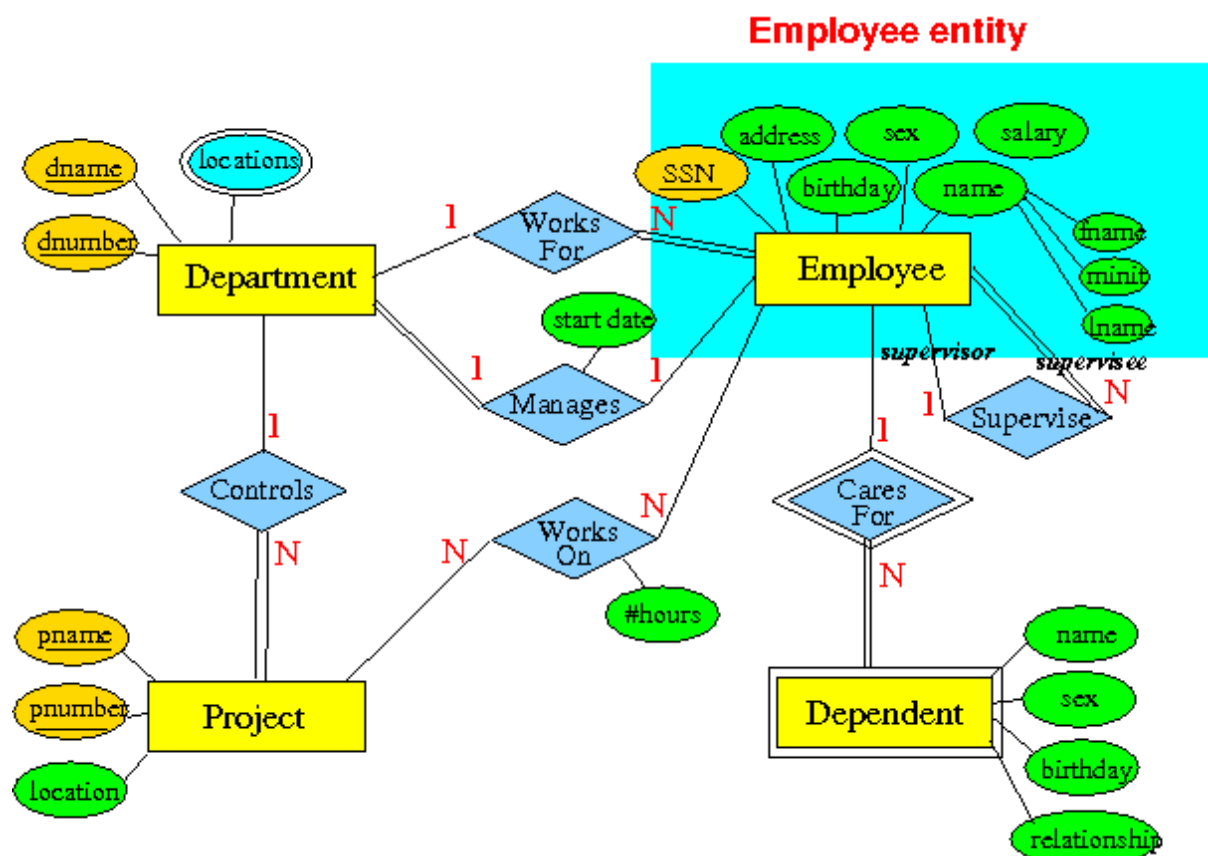Scope of the Work:

The company is organized into departments. Each department has a unique name, a unique number, and is managed by one employee. Company keeps track of the start date when that employee began managing the department (e.g., for bonus reward purposes). A department may have several locations (i.e., spread out). A department controls a number of projects, each of which has a unique name, a unique number, and a single location (where the project is performed). Company maintains each employee's name, social security number (SSN), address, salary, sex, and birth date. An employee is assigned to ("works for") one department but may work on several projects, which are not necessarily controlled by the same department (that the employee is assigned to). Company maintains the number of hours per week that an employee works on each of his/her projects. Each employee has one direct supervisor (which is also an employee of the company. Company keeps information of the dependents of the employee (e.g., for benefit calculation purpose), but the information on dependents are less detailed than those for employees. Company stores for each dependent: the first name, sex, birth date and the relationship to the employee.

ER Model:

Relational Model:

employee

fname	minit	lname	SSN	bdate	address	sex	salary	superSSN	DNO

department

dname	dnumber	mgrSSN	mgrStartDate

department_loc

dnumber	dlocation

project

pname	pnumber	plocation	dnum

works_on

ESSN	pno	hours

dependent

ESSN	dep_name	sex	bdate	relationship

attr

primary key

foreign key