Homework 1

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Problem 1

Solution:

The E-R diagram is as follows:



Problem 2

Solution:

create table Department (

Dept\_no integer,

Dept\_name char(20),

Dept\_head char(20),

primary key (Dept\_no),

foreign key (Dept\_head) references Employee

on delete cascade on update cascade );

create table Employee (

Emp\_no char(20),

Emp\_name char(20),

Room\_no integer,

manager char(20) not null,

Dept\_no integer,

primary key(Emp\_no),

foreign key (manager) references Employee

on delete cascade on update cascade,

foreign key (Dept\_no) references Department

on delete cascade on update cascade );

create table Salary (

Salary\_level integer,

Mon\_Salary float,

primary key (Salary\_level) );

create table Job (

Job\_code char(20),

Job\_title char(20),

primary key(Job\_code) );

create table Project (

Proj\_code char(20),

Proj\_name char(20),

Start\_date char(20),

End\_date char(20),

Project\_manager char(20),

primary key (Proj\_code),

foreign key (Project\_manager) references Employee

on delete cascade on update cascade );

create table salary-hist (

Salary\_level integer,

Job\_code char(20),

Emp\_no char(20),

primary key (Emp\_no, Salary\_level),

foreign key (Emp\_no) references Employee

on delete cascade on update cascade,

foreign key (Job\_code) references Job

on delete cascade on update cascade,

foreign key (Salary\_level) references Salary

on delete cascade on update cascade );

create table works\_on (

Emp\_no char(20),

Proj\_code char(20),

primary key (Emp\_no, Proj\_code),

foreign key (Emp\_no) references Employee

on delete cascade on update cascade,

foreign key (Proj\_code) references Project

on delete cascade on update cascade );