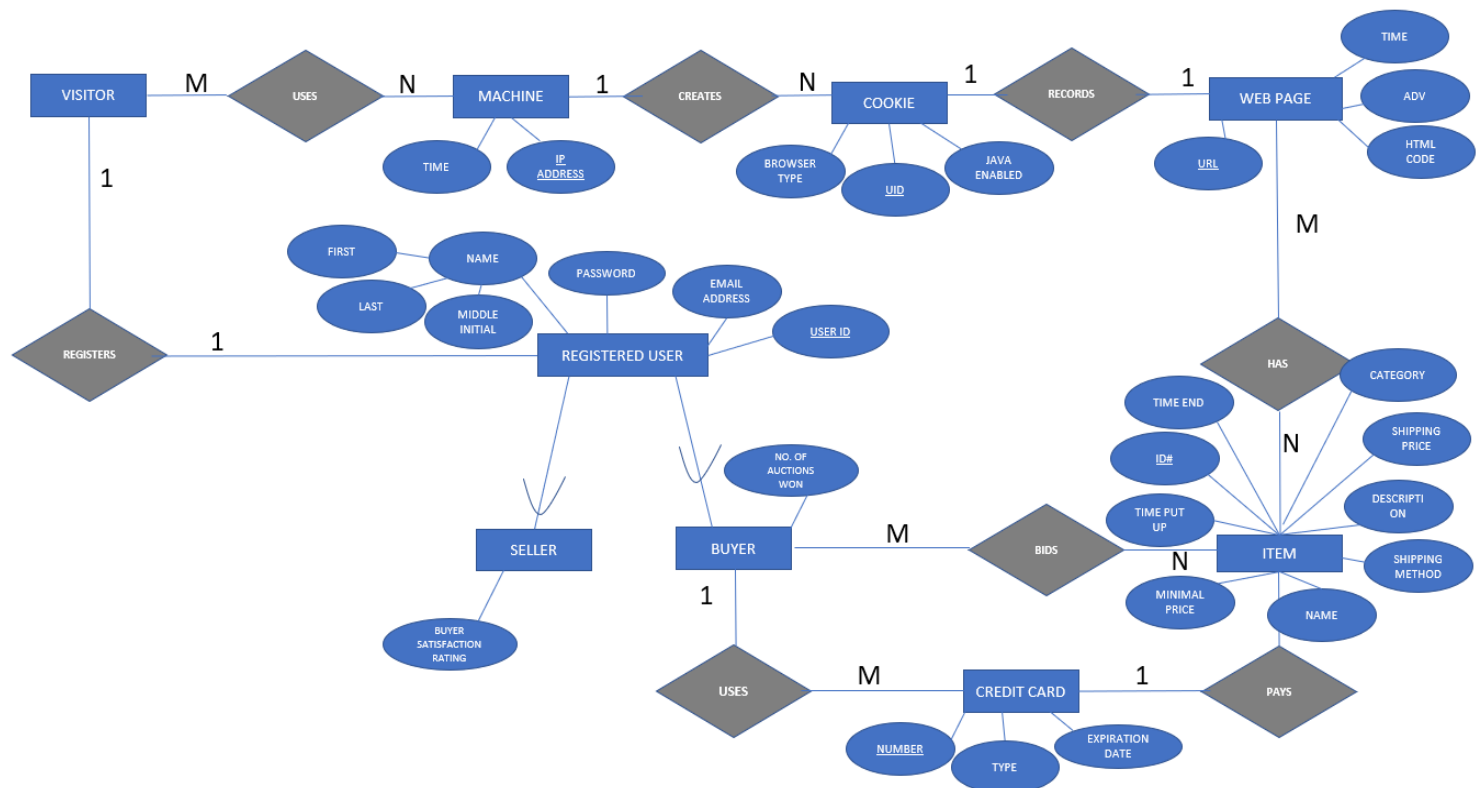# EECS 495—Fall 2017 Homework Assignment No. 1

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Problem 1. ER diagram

Problem No. 2: Given the ER diagram, define the appropriate SQL Tables

Following are the known attributes for the corresponding entity sets:

Department: Dept_no, Dept_name, Dept_head;

Employee: Emp_no, Emp_name, Room_no;

Salary: Salary_level, Mon_Salary;

Job: Job_code, Job_title;

Project: Proj_code, Proj_name, Start_date, End_date;

Answer :

```
Create table Employee ( Emp_no char(10) not null,
                        Emp_name char (20),
                        Room_no integer,
                        Manager_id char(10),
                        Dept_no integer,
                        Primary key(Emp_no),
                        Foreign key(Manager_id) references Employee on delete cascade on update cascade);
                        Foreign key(dept_no) references Department on delete set null on update cascade);


Create table Salary (Salary_level char(10),
                     Mon_Salary integer,
                     Primary key(Salary_Level));
Create Sal_hist (Emp_no char(10),
                 Salary_level char(10),
                 Primary key(Salary_level,emp_no)
                 Foreign key(Salary_level) references Salary on delete cascade on update cascade
                 Foreign key(emp_no) references Employee on delete cascade on update cascade
                 Foreign key(job_code) references job on delete cascade on update cascade);


Create table Department (Dept_no integer,
                         Dept_name char(10),
                         Dept_head char(20),
                         Emp_no char(15)
                         Primary key(Dept_no)
                         Foreign key(Emp_no) references Employee on delete set null on update cascade);


Create table Project (proj_code char(10),
                      Proj_name char(20),
                      Start_date date,
                      End_date date,
                      Mgr_id char(10),
                      Primary key(proj_code)
```

Foreign key(Mgr_id) references **Employee** on delete set null on update cascade);

Create table works_on (proj_code char(10),

Emp_no char (10),

Primary key(proj_code, emp_no)

Foreign key(proj_code) references **project** on delete cascade on update cascade

Foreign key(emp_no) references **employee** on delete cascade on update cascade);

Create table Job(Job_code char(10),

Job_title char(10),

Primary key(job_code));

Problem 3.

Create table Department (dept_no integer,

dept_name char(20),

emp_id char(10),

primary key(dept_no),

manager_id char(10),

foreign key(emp_id) references employee on delete cascade on update cascade);

Create table Employee (Emp_id char(10),

Emp_name char (20),

Room_no integer,

Dept_no

Primary key(Emp_id)

Foreign key(manager_id) references department on delete set null on update cascade

Foreign key(Dept_no) references department on delete set default on update cascade);