# Project Part 1

## Team Member:

### Yumeng Chen …

### Chuanqi Xiong cx657

### (a)

The relational schema is as follows:

create table administrators  
(  
 username varchar(255) not null,  
 password varchar(255) not null,  
 email varchar(255) not null,  
 constraint administrators\_username\_uindex  
 unique (username),

primary key (username)  
);

create table definepriority  
(  
 adminUsername varchar(255) not null,  
 patientUsername varchar(255) not null,  
 priorityGroupNumber int not null,  
 primary key (adminUsername, patientUsername),  
 constraint definepriority\_administrators\_username\_fk  
 foreign key (AdminUsername) references administrators (username),  
 constraint definepriority\_patients\_username\_fk  
 foreign key (PatientUsername) references patients (username),  
 constraint definepriority\_prioritygroup\_groupNumber\_fk  
 foreign key (priorityGroupNumber) references prioritygroup (groupNumber)  
);

create table offerappointment  
(  
 appointmentid int not null,  
 patientUsername varchar(255) not null,  
 status varchar(255) not null,  
 expireTime datetime not null,  
 primary key (appointmentid, patientUsername),  
 constraint offerappointment\_patients\_username\_fk  
 foreign key (PatientUsername) references patients (username),  
 constraint offerappointment\_uploadappointment\_appointmentid\_fk  
 foreign key (appointmentid) references uploadappointment (appointmentid)  
);

create table patients  
(  
 username varchar(255) not null,  
 password varchar(255) not null,  
 firstName varchar(255) not null,  
 lastName varchar(255) not null,  
 SSN int not null,  
 dob date not null,  
 phone varchar(255) not null,  
 email varchar(255) not null,  
 addressLine1 varchar(255) not null,  
 addressLine2 varchar(255) null,  
 city varchar(255) not null,  
 state varchar(255) not null,  
 country varchar(255) not null,  
 zipcode varchar(255) not null,  
 maxDistancePreference varchar(255) not null,  
 longitude varchar(255) not null,  
 latitude varchar(255) not null,  
 constraint patients\_SSN\_uindex  
 unique (SSN),  
 constraint patients\_username\_uindex  
 unique (username),

primary key (username)  
);

create table prioritygroup  
(  
 groupNumber int not null,  
 eligibleDate date not null,  
 constraint prioritygroup\_groupNumber\_uindex  
 unique (groupNumber),

primary key (groupNumber)  
);

create table providers  
(  
 username varchar(255) not null,  
 password varchar(255) not null,  
 name varchar(255) not null,  
 phone varchar(255) not null,  
 email varchar(255) not null,  
 providerType varchar(255) not null,  
 addressLine1 varchar(255) not null,  
 addressLine2 varchar(255) not null,  
 city varchar(255) not null,  
 state varchar(255) not null,  
 country varchar(255) not null,  
 zipcode varchar(255) not null,  
 longitude varchar(255) not null,  
 latitude varchar(255) not null,  
 constraint providers\_username\_uindex  
 unique (username),

primary key (username)  
);

create table timepreference  
(  
 patientUsername varchar(255) not null,  
 slotid int not null,  
 primary key (patientUsername, slotid),  
 constraint timepreference\_patients\_username\_fk  
 foreign key (patientUsername) references patients (username),  
 constraint timepreference\_weeklytimeslot\_slotid\_fk  
 foreign key (slotid) references weeklytimeslot (slotid)  
);

create table uploadappointment  
(  
 appointmentid int not null,  
 providerUsername varchar(255) not null,  
 appointmentDate datetime not null,

slotid int not null,  
 availableNumber int not null,  
 constraint uploadappointment\_providers\_username\_fk  
 foreign key (ProviderUsername) references providers (username),

constraint uploadappointment\_weeklytimeslot\_slotid\_fk  
 foreign key (slotid) references weeklytimeslot (slotid),

primary key (appointmentid)  
);

create table weeklytimeslot  
(  
 slotid int not null,  
 weekday varchar(255) not null,  
 startTime time not null,  
 endTime time not null,

primary key (slotid)  
);

The ER Diagram is as follows: