

Introduction:

For the database we chose to design, we decided to model it after a medical office. The reason why we chose a medical/doctor office as a database to create, is we believe designing a database for a medical office will give us a deeper understanding of such a business. This will allow us to understand the relationships between staff, and patients. Giving us an understanding of what it takes to be considered an actual doctor's office. When it comes to the dataset for this project, a problem that we ran upon was confidentiality. No reasonable and legitimate medical office will just give out patient information to anyone, so to work around this most of the patient information such as address, name, ssn, etc. will be made up. Even though the data for the attributes are made up, the format and information added will be reasonable.

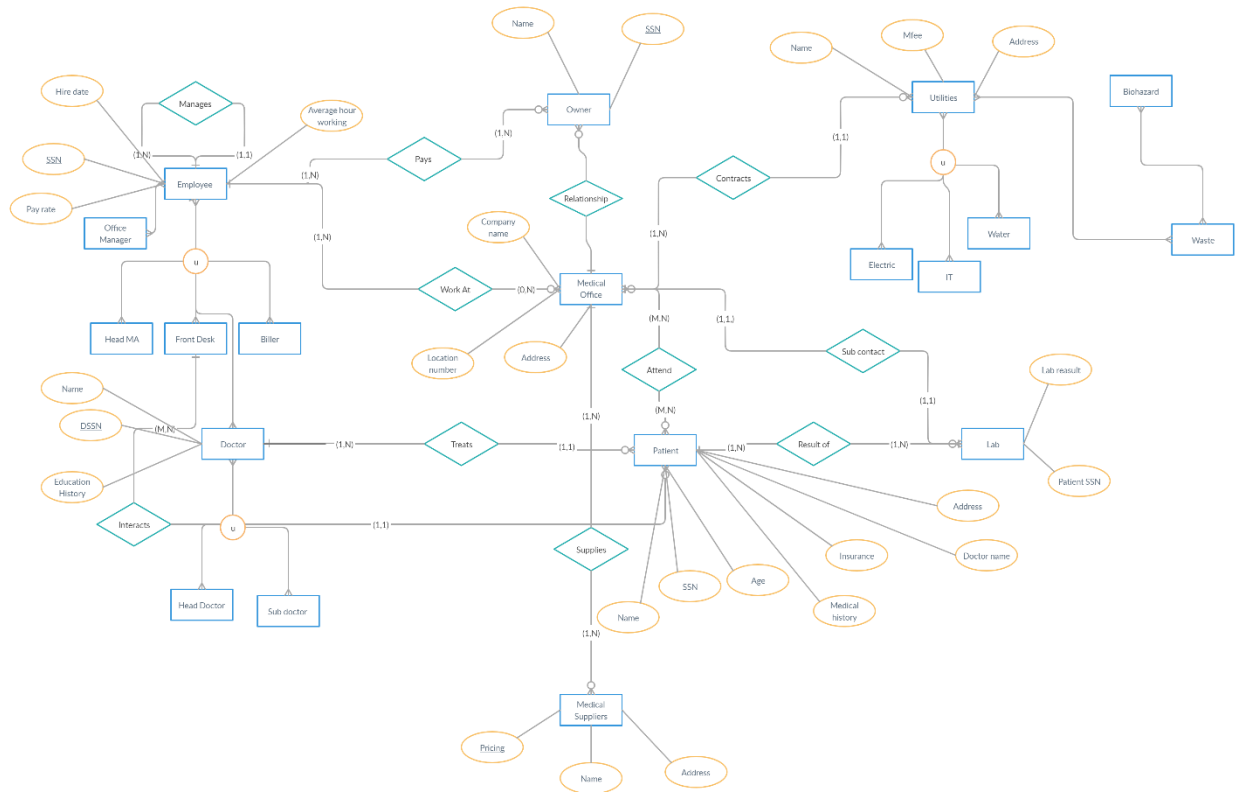
Database Requirements Analysis:

What we require our database to do after running queries, is to show the patients and their specific doctor. This could lead to multiple results because there are multiple doctors in a single office, we would like a query into the specific utilities at a medical office, and a query to show employees who makes more than others. Another query we would like to use is to gather which lab company is contracted at differing medical offices. We would also like a query into the doctor's educational history. Another query we plan to use is gathering all employees who worked with a specific patient. A query where we show which employee or doctor interacted with whatever patient would be interesting to try and solve. What lab result ties to whatever patient is something we will investigate also. There's plenty of queries that can be used to gather information from this database, and these specific queries listed might be subjected to change later but as for now this is what we'll be working with.

EER Model:

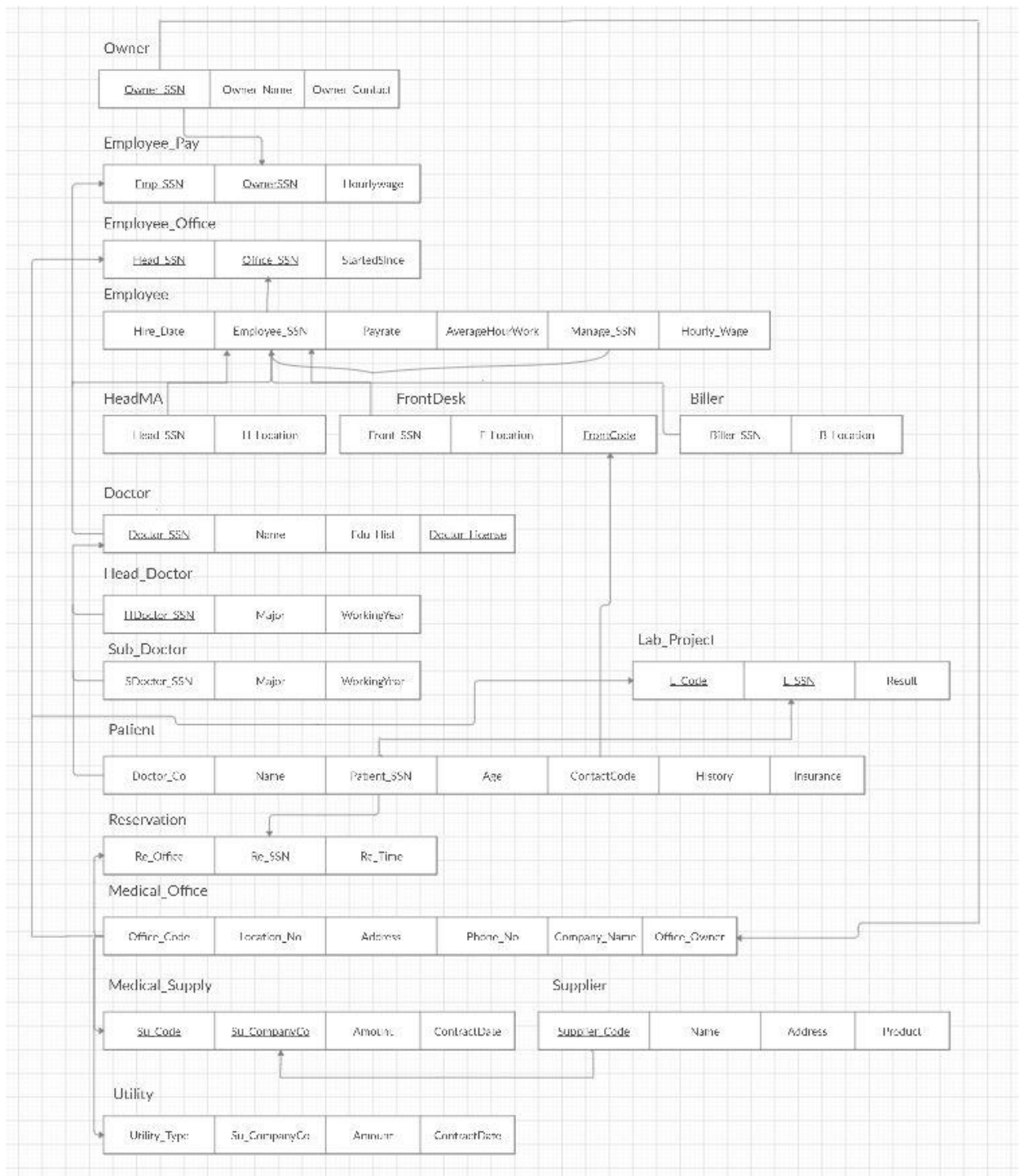
When it comes to the entities and relationships in our EER Model we have 19 entities and 11 relationships, with each entity having a specific relationship leaving none out. You have multiple patients who attend a medical office, utilities who contract under multiple medical offices and these utilities have a monthly fee, name, and address. Labs who have a contract to specific medical offices where they have a test result and patient ssn. Patient has the most attributes of all our entities which includes name, ssn, age, medical history, doctor's name, etc. Employees who work at a medical office, and employees who manages other employees. Doctors treats patients and medical suppliers supply medicine to multiple medical offices. Lastly you have a specific employee who mainly interacts with the patients and that is the front desk staff. So, on our EER model we drew a relationship between front desk employee, and patient with the relation being interacts.

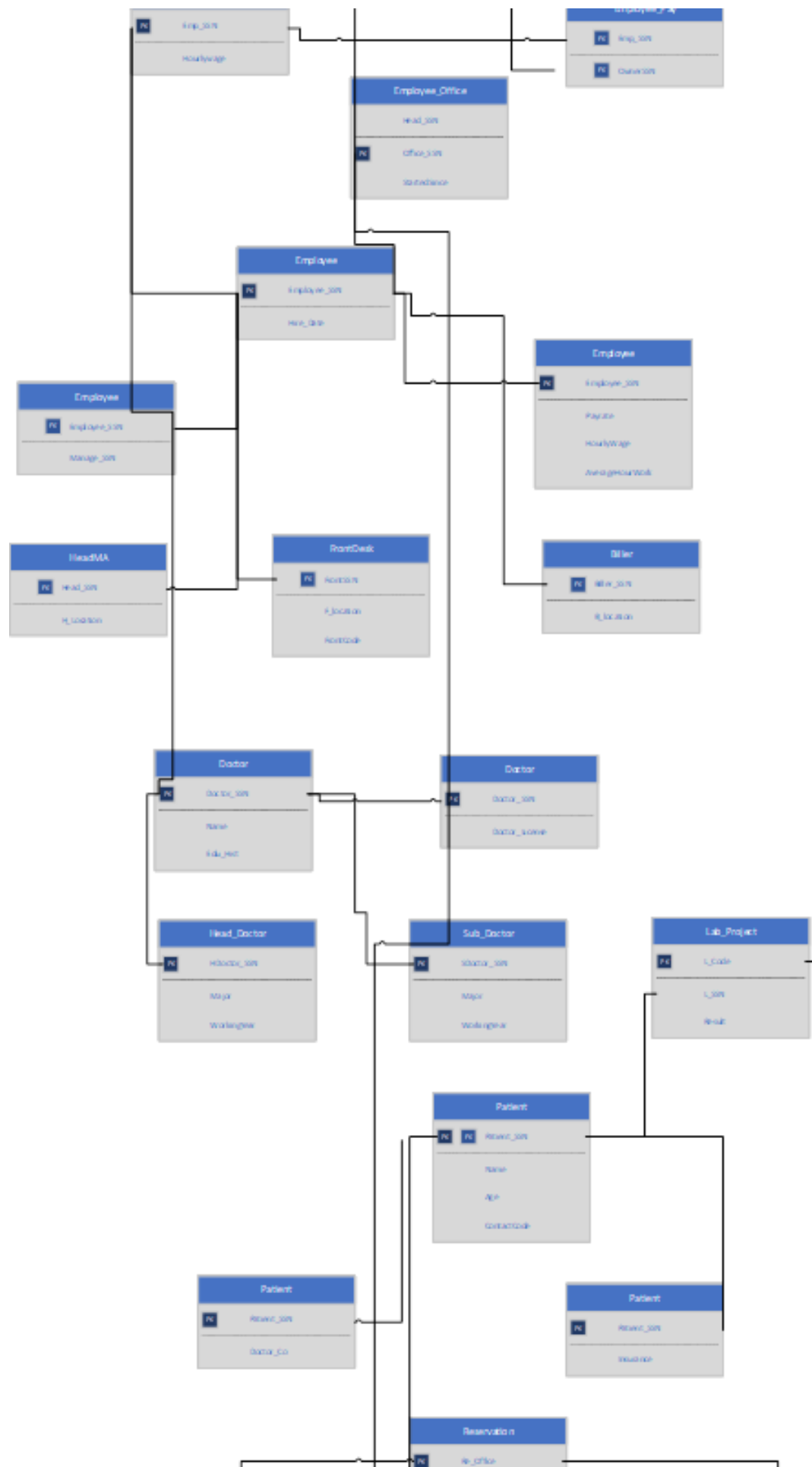
Below is the completed and finalized EER model, the only potential changes we'll possibly make to it is more than likely just grammatical, such as fixing spelling errors.



Relational Model(Mapping & Normalization):

Below is our schema, the first picture shows the relational model before normalization and the second picture shows the normalized relational model. Some parts of the normalized schema might be cut off, so I made sure to submit the original pdf file that contains it also. :





Data Dictionary:

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Jamal AshbyJA

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ShareComments

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
29	Patient	ContactCode	INT		Yes	5 digits, Positive																
30	Patient	History	VARCHAR(100)																			
31	Patient	Insurance	VARCHAR(40)																			
32	Lab_Project	L_Code	VARCHAR(5)		Yes	5 characters																
33	Lab_Project	L_SSN	INT		Yes	9 digits, Positive																
34	Lab_Project	Result	VARCHAR(100)																			
35	Reservation	Re_Office	VARCHAR(5)	Yes	Yes	5 characters																
36	Reservation	Re_SSN	INT	Yes	Yes	9 digits, Positive																
37	Reservation	Re_Time	Date			> CurrentDate																
38	Medical_Office	Office_Code	VARCHAR(5)	Yes		5 characters																
39	Medical_Office	Location_No	INT																			
40	Medical_Office	Address	VARCHAR(100)																			
41	Medical_Office	Phone_No	INT			10 digits, Positive																
42	Medical_Office	Company_Name	VARCHAR(40)																			
43	Medical_Office	Office_Owner	INT	Yes	Yes	9 digits, Positive																
44	Medical_Supply	Su_Code	VARCHAR(5)		Yes	5 characters																
45	Medical_Supply	Su_CompanyCo	VARCHAR(5)		Yes	5 characters																
46	Medical_Supply	Amount	INT																			
47	Medical_Supply	ContractDate	DATE																			
48	Supplier	Supplier_Code	VARCHAR(5)		Yes	5 characters																
49	Supplier	Name	VARCHAR(40)																			
50	Supplier	Address	VARCHAR(40)																			
51	Supplier	Product	VARCHAR(40)																			
52	Utility	Utility_Type	VARCHAR(40)																			
53	Utility	Su_CompanyCo	VARCHAR(5)		Yes	5 characters																
54	Utility	Amount	INT																			
55	Utility	ContractDate	DATE																			
56	Owner	Owner_SSN	INT	Yes		9 digits, Positive																
57	Owner	Owner_Name	VARCHAR(40)																			
58	Owner	Owner_Contact	VARCHAR(40)																			
59	Employee_Pay	Emp_SSN	INT		Yes	9 digits, Positive																
60	Employee_Pay	Owner_SSN	INT		Yes	9 digits, Positive																
61	Employee_Pay	Hourly_Wage	INT																			
62	Employee_Office	Head_SSN	INT	Yes	Yes	9 digits, Positive																
63	Employee_Office	Office_SSN	INT	Yes	Yes	9 digits, Positive																
64	Employee_Office	StartedSince	DATE			< Current Date																
65																						

Sheet1

80%

Implementation:

The first three pictures contains the project schema:

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C:\Users\Jamaal\Desktop\Project Report\ProjectSchema.sql - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
ProjectSchema.sql ProjectData.sql ProjectQueries.sql
1 CREATE DATABASE Medical_Office;
2 USE Medical_Office;
3
4 CREATE TABLE employee(
5     hire_date date not null,
6     employee_ssn int(9) not null,
7     manage_ssn int(9),
8     AvgHrWork int(3),
9     primary key(employee_ssn)
10 );
11
12 CREATE TABLE headMA(
13     head_ssn int(9) not null,
14     h_location varchar(100),
15     foreign key(head_ssn) references employee(employee_ssn)
16 );
17
18 CREATE TABLE frontdesk(
19     front_ssn int(9) not null,
20     f_location varchar(100),
21     foreign key(front_ssn) references employee(employee_ssn)
22 );
23
24 CREATE TABLE biller(
25     biller_ssn int(9) not null,
26     b_location varchar(100),
27     foreign key(biller_ssn) references employee(employee_ssn)
28 );
29
30 CREATE TABLE doctor(
31     doctor_ssn int(9) not null,
32     name varchar(40) not null,
33     edu_hist varchar(40),
34     doctor_license int(10) not null,
35     primary key(doctor_ssn)
36 );
37
38 CREATE TABLE head_doctor(
39     hdoctor_ssn int(9) not null,
40     major varchar(40),
41     foreign key(hdoctor_ssn) references doctor(doctor_ssn)
42 );
43
44 CREATE TABLE sub_doctor(
45     sdoctor_ssn int(9) not null,
46     major varchar(40),
47     working_year int(4),
48     foreign key (sdoctor_ssn) references doctor(doctor_ssn)
49 );
50
51 CREATE TABLE patient(
52     doctor_co int(9) not null,
53     name varchar(40) not null,
54     patient_ssn int(9) not null,
55     age int(3),
56     contact_code int(5),
57     history varchar(100),
58     insurance varchar(40),
59     primary key(patient_ssn),
60     foreign key(doctor_co) references doctor(doctor_ssn)
61 );
62
63 CREATE TABLE supplier(
64     supplier_code varchar(5),
65     name varchar(40),
66     address varchar(40),
67     product varchar(40),
68     primary key(supplier_code)
69 );
70
71 CREATE TABLE owner(
72     owner_ssn int(9) not null,
73     owner_name varchar(40) not null,
74     owner_contact varchar(40),
75     primary key(owner_ssn)
76 );
77
78 CREATE TABLE medical_office(
79     office_code varchar(5) not null,
80     ...
81 );
82
Structured Query Language file length: 3,062 lines: 129 Ln: 1 Col: 1 Sel: 0 | 0 Windows (CR LF) UTF-8 INS
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C:\Users\Jamaal\Desktop\Project Report\ProjectSchema.sql - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
ProjectSchema.sql ProjectData.sql ProjectQueries.sql
41 working_year int(4),
42 foreign key(hdoctor_ssn) references doctor(doctor_ssn)
43 );
44
45 CREATE TABLE sub_doctor(
46     sdoctor_ssn int(9) not null,
47     major varchar(40),
48     working_year int(4),
49     foreign key (sdoctor_ssn) references doctor(doctor_ssn)
50 );
51
52 CREATE TABLE patient(
53     doctor_co int(9) not null,
54     name varchar(40) not null,
55     patient_ssn int(9) not null,
56     age int(3),
57     contact_code int(5),
58     history varchar(100),
59     insurance varchar(40),
60     primary key(patient_ssn),
61     foreign key(doctor_co) references doctor(doctor_ssn)
62 );
63
64 CREATE TABLE supplier(
65     supplier_code varchar(5),
66     name varchar(40),
67     address varchar(40),
68     product varchar(40),
69     primary key(supplier_code)
70 );
71
72 CREATE TABLE owner(
73     owner_ssn int(9) not null,
74     owner_name varchar(40) not null,
75     owner_contact varchar(40),
76     primary key(owner_ssn)
77 );
78
79 CREATE TABLE medical_office(
80     office_code varchar(5) not null,
81     ...
82 );
83
Structured Query Language file length: 3,062 lines: 129 Ln: 1 Col: 1 Sel: 0 | 0 Windows (CR LF) UTF-8 INS
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```
C:\Users\Jama\\Desktop\Project Report\ProjectSchema.sql - Notepad++
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ProjectSchema.sql ProjectData.sql ProjectQueries.sql
90 CREATE TABLE lab_project(
91     l_code varchar(5) not null,
92     l_ssn int(9) not null,
93     results varchar(100),
94     foreign key(l_code) references medical_office(office_code),
95     foreign key(l_ssn) references patient(patient_ssn)
96 );
97
98 CREATE TABLE reservation(
99     re_office varchar(5) not null,
100     re_ssn int(9) not null,
101     re_time date,
102     primary key(re_office,re_ssn),
103     foreign key(re_office) references medical_office(office_code),
104     foreign key(re_ssn) references patient(patient_ssn)
105 );
106
107 CREATE TABLE medical_supply(
108     su_code varchar(5) not null,
109     su_companycode varchar(5),
110     amount int,
111     contractdate date,
112     foreign key(su_code) references supplier(supplier_code)
113 );
114
115
116 CREATE TABLE utility(
117     utility_type varchar(40) not null,
118     amount int,
119     contractdate date,
120     primary key(utility_type)
121 );
122
123 CREATE TABLE employee_pay(
124     emp_ssn int(9) not null,
125     own_ssn int(9) not null,
126     hourly_wage decimal(9,2),
127     foreign key(emp_ssn) references employee(employee_ssn),
128     foreign key(own_ssn) references owner(owner_ssn)
129 );
Structured Query Language file length: 3,062 lines: 129 Ln: 1 Col: 1 Sel: 0 | 0 Windows (CR LF) UTF-8 INS
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The next four pictures contain the insertion of the data:

```
C:\Users\Jama\\Desktop\Project Report\ProjectData.sql - Notepad++
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ProjectSchema.sql ProjectData.sql ProjectQueries.sql
1 /*EMPLOYEE(hire_date, employee_ssn, manager_ssn(just put null if no manager), AVGHOURSAYEAR)*/
2 /*Office 1*/
3 INSERT into employee values(date '2018-12-17',123456789,null,342);
4 INSERT into employee values(date '2017-08-24',345215678,123456789,243);
5 INSERT into employee values(date '2014-07-06',435215667,123456789,156);
6 INSERT into employee values(date '2012-08-22',771234567,123456789,221);
7 INSERT into employee values(date '2017-01-05',653421343,123456789,123);
8
9 /*Office 2*/
10 INSERT into employee values(date '2011-11-07',111222333,null,436);
11 INSERT into employee values(date '2013-09-24',222314556,111222333,324);
12 INSERT into employee values(date '2010-08-08',777444362,111222333,356);
13 INSERT into employee values(date '2017-05-06',884455933,111222333,444);
14 INSERT into employee values(date '2017-02-14',911223344,111222333,213);
15
16 /*HEADMA(EMPLOYEE SSN, LOCATION)*/
17 /*Office 1*/
18 INSERT into headma values(123456789,'242 Stoic Rd. ');
19
20 /*Office 2*/
21 INSERT into headma values(222314556,'567 Naud Rd. ');
22
23 /*FRONTDESK(EMPLOYEE SSN, LOCATION)*/
24 /*Office 1*/
25 INSERT into frontend values(345215678,'242 Stoic Rd. ');
26 INSERT into frontend values(435215667,'242 Stoic Rd. ');
27 INSERT into frontend values(653421343,'242 Stoic Rd. ');
28
29 /*Office 2*/
30 INSERT into frontend values(777444362,'567 Naud Rd. ');
31 INSERT into frontend values(884455933,'567 Naud Rd. ');
32 INSERT into frontend values(911223344,'567 Naud Rd. ');
33
34 /*BILLER(EMPLOYEE SSN, LOCATION)*/
35 /*Office 1*/
36 INSERT into biller values(771234567,'242 Stoic Rd. ');
37
38 /*Office 2*/
39 INSERT into biller values(111222333,'567 Naud Rd. ');
40
Structured Query Language file length: 7,332 lines: 133 Ln: 1 Col: 1 Sel: 0 | 0 Windows (CR LF) UTF-8 INS
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```
C:\Users\Jama\\Desktop\Project Report\ProjectData.sql - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
ProjectSchema.sql ProjectData.sql ProjectQueries.sql
41 /*Only need these doctor values only*/
42 INSERT into doctor values(332211551,'Dubois Smith','Ph.D',9283765600);
43 INSERT into doctor values(221177445,'Frank Zane','Ph.D',8812234556);
44 INSERT into doctor values(665577889,'Clarisa Clark','Ph.D',0022004431);
45
46 /*Only need these doctor values only*/
47 INSERT into head_doctor values(332211551,'Pre-Med',1996);
48 INSERT into sub_doctor values(221177445,'Pharmaceutical',2014);
49 INSERT into sub_doctor values(665577889,'Psychology',2017);
50
51 /*PATIENT(DOCTOR_SSN, NAME, PATIENT_SSN,AGE,CONTACT_CODE(just put null),HEALTH HISTORY,INSURANCE)*/
52 INSERT into patient values(221177445,'Leroy Jenkins',123412345,26,null,'Scoliosis','Life Haven');
53 INSERT into patient values(332211551,'Eric Macoye',111111111,41,null,'Obesity','Anthem');
54 INSERT into patient values(221177445,'Lenin Spike',222222222,33,null,'High Blood Pressure','Humana');
55 INSERT into patient values(665577889,'Jama Ashby',333333333,43,null,'Stroke','Aetna');
56 INSERT into patient values(332211551,'Ashan Michael',444444444,18,null,'Asthma','Cigna');
57 INSERT into patient values(221177445,'Latonda Williams',555555555,22,null,'Depression','Highmark');
58 INSERT into patient values(665577889,'Lisa Tran',666666666,32,null,'Arthritis','Molina Healthcare');
59 INSERT into patient values(221177445,'Matthew Tran',777777777,67,null,'Heart Disease','Kaiser Permanente');
60 INSERT into patient values(221177445,'Hoang Nguyen',888888888,34,null,'Osteoporosis','Anthem');
61 INSERT into patient values(332211551,'Lance Pappillon',999999999,45,null,'Epilepsy','Life Haven');
62
63 /*Only one owner is needed*/
64 INSERT into owner values(332211551,'Dubois Smith','345-657-2213');
65
66 /*MEDICAL OFFICE(office_code, location_number,address,phone_number, company_name, owner_ssn)*/
67 /*Office 1*/
68 INSERT into medical_office values('0uy6y',1,'242 Stoic Rd.','2134335678','MicoPat Clinic',332211551);
69
70 /*Office 2*/
71 INSERT into medical_office values('09uyt',2,'567 Naud Rd.','4047556789','MicoPat Clinic',332211551);
72
73 /*RESERVATION(office_code, patient_ssn, reservation_date)*/
74 INSERT into reservation values('0uy6y',123412345,date '2019-04-03');
75 INSERT into reservation values('09uyt',111111111,date '2019-07-13');
76 INSERT into reservation values('0uy6y',222222222,date '2019-08-01');
77 INSERT into reservation values('09uyt',333333333,date '2019-12-13');
78 INSERT into reservation values('0uy6y',444444444,date '2019-02-24');
79 INSERT into reservation values('09uyt',555555555,date '2019-11-27');
80 INSERT into reservation values('0uy6y',666666666,date '2019-10-08');
81
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C:\Users\Jama\\Desktop\Project Report\ProjectData.sql - Notepad++
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ProjectSchema.sql ProjectData.sql ProjectQueries.sql
81 INSERT into reservation values('09uyt',777777777,date '2019-11-11');
82 INSERT into reservation values('0uy6y',888888888,date '2019-09-03');
83 INSERT into reservation values('0uy6y',999999999,date '2019-01-23');
84
85 /*lab_project(office_code, patient_ssn,health status)*/
86 INSERT into lab_project values('0uy6y',123412345,'Healthy');
87 INSERT into lab_project values('09uyt',111111111,'Sickly');
88 INSERT into lab_project values('0uy6y',222222222,'Healthy');
89 INSERT into lab_project values('09uyt',333333333,'Sickly');
90 INSERT into lab_project values('0uy6y',444444444,'Healthy');
91 INSERT into lab_project values('09uyt',555555555,'Sickly');
92 INSERT into lab_project values('0uy6y',666666666,'Healthy');
93 INSERT into lab_project values('09uyt',777777777,'Sickly');
94 INSERT into lab_project values('0uy6y',888888888,'Healthy');
95 INSERT into lab_project values('0uy6y',999999999,'Sickly');
96
97 /*SUPPLIER(supplier_code, company_name, address, product name)*/
98 INSERT into supplier values('a0r43','McNeil Consumer Healthcare','Fort Washington, Pennsylvania','Tylenol');
99 INSERT into supplier values('x0945','Merck & Co., Inc.','Rome, Georgia','Belsomra');
100 INSERT into supplier values('44re3','Novo Nordisk','Los Angeles, California','Victoza');
101 INSERT into supplier values('l4rr5','Janssen','New York, New York','Invokana');
102 INSERT into supplier values('lwwq3','Daiichi Sankyo, Inc.','Chicago, Illinois','Tribenzor');
103 INSERT into supplier values('z9u8e','AstraZeneca','Houston, Texas','Symbicort');
104 INSERT into supplier values('p3er4','AstraZeneca','Phoenix, Arizona','Bydureon BCISE');
105
106 /*Medical_Supply(SUPPLIER CODE,null,AMOUNT, CONTRACT DATE)*/
107 INSERT into medical_supply values('a0r43',null,300,date '2019-08-09');
108 INSERT into medical_supply values('x0945',null,250,date '2019-07-19');
109 INSERT into medical_supply values('44re3',null,400,date '2019-11-14');
110 INSERT into medical_supply values('l4rr5',null,225,date '2019-10-12');
111 INSERT into medical_supply values('lwwq3',null,556,date '2019-01-01');
112 INSERT into medical_supply values('z9u8e',null,245,date '2019-09-17');
113 INSERT into medical_supply values('p3er4',null,100,date '2019-05-10');
114
115
116 /*UTILITY(Utility Type, Amount, Contract Date)*/
117 INSERT into utility values('Electricity',1,date '2019-11-11');
118 INSERT into utility values('Water',1,date '2019-11-13');
119 INSERT into utility values('Waste',1,date '2019-11-12');
120 INSERT into utility values('Internet',1,date '2019-11-14');
121
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```
C:\Users\Jama\\Desktop\Project Report\ProjectData.sql - Notepad++
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ProjectSchema.sql ProjectData.sql ProjectQueries.sql
94 INSERT into lab_project values('8uy6y',888888888,'Healthy');
95 INSERT into lab_project values('8uy6y',999999999,'Sickly');
96
97 /*SUPPLIER(supplier_code, company_name, address, product_name)*/
98 INSERT into supplier values('a0r43','McNeil Consumer Healthcare','Fort Washington, Pennsylvania','Tylenol');
99 INSERT into supplier values('xo945','Merck & Co., Inc.','Rome, Georgia','Belsomra');
100 INSERT into supplier values('44re3','Novo Nordisk','Los Angeles, California','Victoza');
101 INSERT into supplier values('14rr5','Janssen','New York, New York','Invokana');
102 INSERT into supplier values('1wwq3','Daichi Sankyo, Inc.','Chicago, Illinois','Tribenzor');
103 INSERT into supplier values('z9u8e','AstraZeneca','Houston, Texas','Symbicort');
104 INSERT into supplier values('p3er4','AstraZeneca','Phoenix, Arizona','Bydureon BCISE');
105
106 /*Medical_Supply(SUPPLIER CODE,null,AMOUNT, CONTRACT DATE)*/
107 INSERT into medical_supply values('a0r43',null,300,date '2019-08-09');
108 INSERT into medical_supply values('xo945',null,250,date '2019-07-19');
109 INSERT into medical_supply values('44re3',null,400,date '2019-11-14');
110 INSERT into medical_supply values('14rr5',null,225,date '2019-10-12');
111 INSERT into medical_supply values('1wwq3',null,556,date '2019-01-01');
112 INSERT into medical_supply values('z9u8e',null,245,date '2019-09-17');
113 INSERT into medical_supply values('p3er4',null,100,date '2019-05-10');
114
115
116 /*UTILITY(Utility Type, Amount, Contract Date)*/
117 INSERT into utility values('Electricity',1,date '2019-11-11');
118 INSERT into utility values('Water',1,date '2019-11-13');
119 INSERT into utility values('Waste',1,date '2019-11-12');
120 INSERT into utility values('Internet',1,date '2019-11-14');
121 INSERT into utility values('IT',1,date '2019-11-15');
122
123 /*EMPLOYEE_PAY(employee_ssn,owner_ssn,hourly_wage)*/
124 INSERT into employee_pay values(123456789,332211551,20.75);
125 INSERT into employee_pay values(345215678,332211551,14.65);
126 INSERT into employee_pay values(435215667,332211551,15.50);
127 INSERT into employee_pay values(771234567,332211551,16.55);
128 INSERT into employee_pay values(653421343,332211551,17.70);
129 INSERT into employee_pay values(111222333,332211551,21.75);
130 INSERT into employee_pay values(223314556,332211551,19.56);
131 INSERT into employee_pay values(777444362,332211551,18.45);
132 INSERT into employee_pay values(884455933,332211551,17.30);
133 INSERT into employee_pay values(911223344,332211551,17.50);
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C:\Users\Jamal\Desktop\Project Report\ProjectQueries.sql - Notepad++
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ProjectSchema.sql ProjectData.sql ProjectQueries.sql
22 group by doctor_co order by count(doctor_co)
23 desc limit 1;
24
25 /*6-Office that has the most reservations.*/
26 select re_office, count(re_office) as reservation_count
27 from reservation
28 group by re_office
29 order by count(re_office) desc
30 limit 1;
31
32 /*7- Supplier who supplies the most medicine.*/
33 select name from supplier
34 where supplier_code in (select su_code
35 from medical_supply
36 where amount = (select max(amount) from medical_supply));
37
38 /*8-Find all managers.*/
39 select *
40 from employee
41 where manage_ssn is NULL;
42
43 /*9-Shows all employees and their working location.*/
44 (select head_ssn as emp_ssn, h_location as location from headMA) union (select * from frontdesk) union (select * from biller);
45
46 /*10-Total # of employees of the whole medical practice.*/
47 select count(*) as total_employees
48 from employee;
49
50 /*11-List all medical office locations.*/
51 select address
52 from medical_office;
53
54 /*12-List the amount of employees for each office.*/
55 select tem.location, count(*) as employee_amount
56 from (select h_location as location from headMA
57 union ALL
58 select f_location as location from frontdesk union ALL
59 select b_location as location from biller) as tem
60 group by location
61 order by location;
Structured Query Language file length: 1,857 lines: 61 Ln: 1 Col: 1 Sel: 0 | 0 Windows (CR LF) UTF-8 INS

```

Teamwork:

When it comes to teamwork, all group members were helpful, and supportive when it comes to designing the database. Jamal Ashby's task was to work on the introduction, report, and create a rough draft of the EER Model. Abrham Dejene's task was to create the final version of the EER Model. Minh Song's task was to do the mapping part of the database. During time in class we got together to talk about how to split up these tasks evenly, so everyone gets a chance to do something without feeling left out. We also exchanged information and stay in contact out of class when it comes to the project. Minh also took care of the Data Dictionary, and Abrham finished the projects Normalization. Jamal's task was to do the implementation and finish the final report.

Member	Task
Ashby, Jamal	Introduction, Report, Implementation
Dejene, Abrham	EER Model, Normalization
Song, Minh	Mapping, Data Dictionary

Summary:

In conclusion, this project was great in helping us learn how to design a database that is ready to be used. Besides the SQL coding parts, we can take the time to appreciate how much work is put into designing a database and the different techniques that can be used to finalize your specific database. When it came to our functional dependencies, we found that we were able to get our queries to look up everything that was needed. The only true problem we ran into was during the implementation process, where there was a foreign key error and it wouldn't create a table. The problem was quickly fixed, and we were able to get everything working properly. Other than that, it was a pretty informative project and we can see ourselves using this knowledge in the future when going into the workforce or for future classes such as Web Design or Software Engineering.