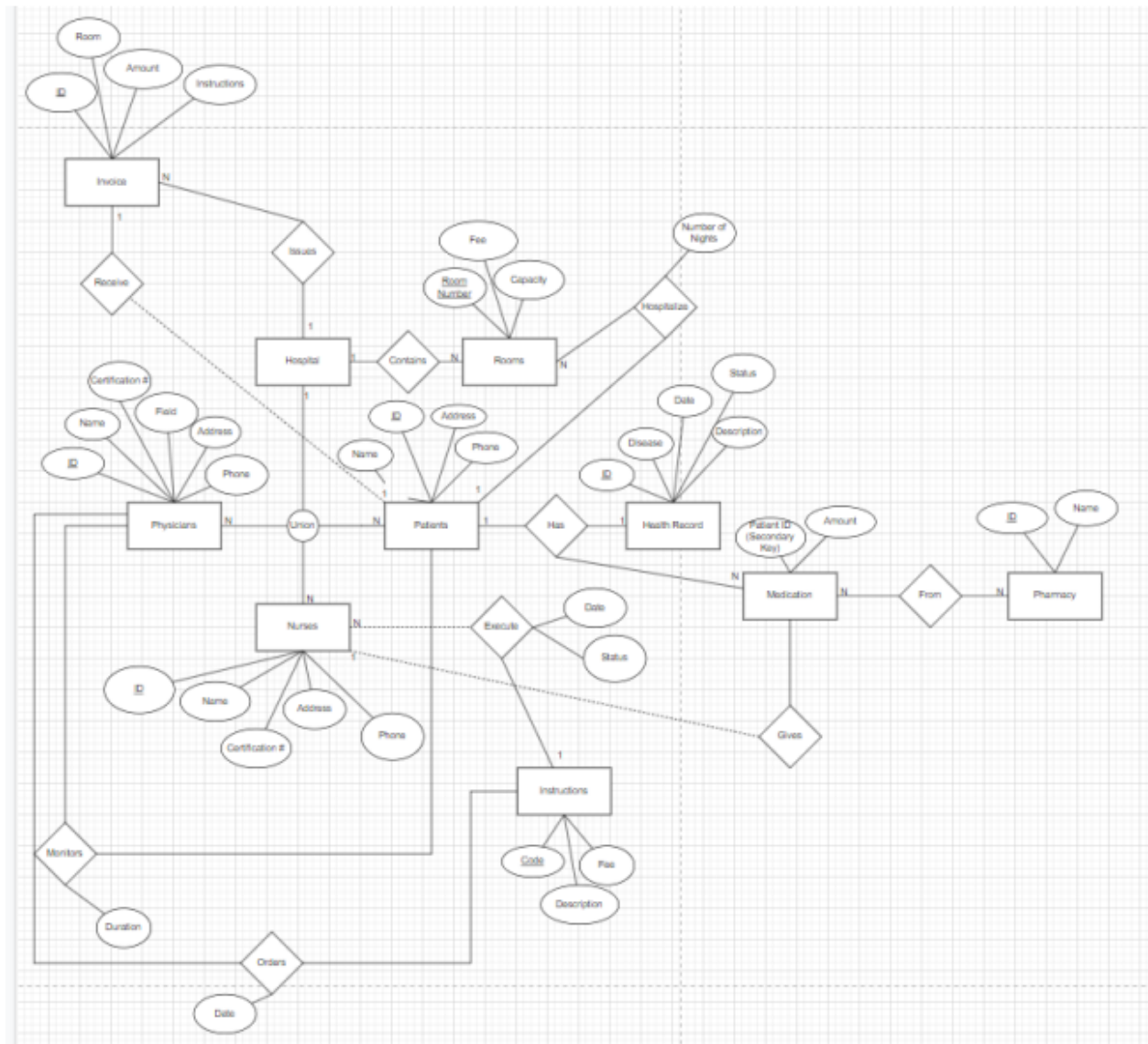Will Colvill
Final Report
Hospital Database

ER Diagram:

PK: Physician(physician_id) **FK:** Instructions(physician_id)
PK: Nurse(nurse_id) **FK:** Instructions(nurse_id)
PK: Nurse(nurse_id) **FK:** Medication(nurse_id)
PK: Patient(patient_id) **FK:** Record(patient_id)
PK: Patient(patient_id) **FK:** Instructions(patient_id)
PK: Patient(patient_id) **FK:** Medication(patient_id)

Tables:

Record Table

	patient_id	disease	date	status	description
▶	1	Limphoma	03/24/2014	Cured	Cant Breathe
	1	Coughitis	05/21/2017	Uncured	Coughing
	1	Boneitis	02/23/2012	Fixed	Broken Bones
	1	Clogged Artery	08/27/2013	Unclogged	Blocked vessel
	1	Cancer	03/24/2019	Cured	Bad Cells

Instructions Table

	instruction_id	date	physician_id	nurse_id	patient_id	status	fee	description
▶	1	10-20-2019	1	2	3	Complete	100.00	Prepare for Surgery
	2	09-12-2020	2	1	2	Incomplete	500.00	Set arm in a cast
	3	01-03-2017	3	3	1	Complete	1000.00	Treat for sickness
	4	10-30-2021	4	5	4	Complete	750.00	Take Xrays
	5	06-20-2019	5	4	5	Complete	100.00	Prepare for Surgery
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Nurse Table

	nurse_id	name	certnum	address	phone
▶	1	Susy Q	4732	423 Road Road	4032468756
	2	Jamie Lands	4732	143 Sesame Street	9405468756
	3	Marcus Long	4983	423 Road Road	9405890456
	4	Jerry Long	4936	933 Rocky Road	9430658409
	5	Eric Shoe	3285	333 Shot Ave	3373374895

Patient Table

	patient_id	name	address	phone
▶	1	Jim Bonez	754 Mary Lane	3456758439
	2	Jake Bake	687 Drury Street	3145638756
	3	Tracy Leem	3121 Cross Road	3547654893
	4	Mark Mark	34321 Apple Ave	9874563243
	5	Jerry Jones	3465 Orchard Lane	3847594382

Payment Table

	patient_id	amount	date
▶	1	1000.00	10/31/22
	2	500.00	09/22/22
	3	100.00	11/31/22
	4	750.00	04/31/22
	5	100.00	02/31/22

Physician Table

physician_id	name	certnum	address	phone
▶ 1	Joe Flow	475	344 Hollow Road	3333333333
2	Marky Mark	473	657 Road Street	4448573243
3	Kyle Busch	453	324 Door Ave	3465432431
4	Kim Possible	432	33 Iglue Road	4576345554
5	Sherry Berry	321	56 Seven Street	8573924853
* NULL	NULL	NULL	NULL	NULL

Record Table

patient_id	disease	date	status	description
▶ 1	Limphoma	03/24/2014	Cured	Cant Breathe
1	Coughitis	05/21/2017	Uncured	Coughing
1	Boneitis	02/23/2012	Fixed	Broken Bones
1	Clogged Artery	08/27/2013	Unclogged	Blocked vessel
1	Cancer	03/24/2019	Cured	Bad Cells

Medication Table

patient_id	type	amount	nurse_id
▶ 1	Valium	2 pills	5
2	Helium	1 dose	4
3	Blue Pill	4 pills	3
4	Water	2 Glasses	2
5	Bandage	2 Full Wraps	1

Queries:

Name and phone of all patients whose name starts with J

```
10 ●    select name, phone
11      from patient
12      where name like "J%";
13
```

Result Grid | Filter Rows:

name	phone
Jim Bonez	3456758439
Jake Bake	3145638756
Jerry Jones	3847594382

Patient id for someone given care in the year 2021

```
14 •    select patient_id
15        from instructions
16        where date like "%21";
```

Result Grid   Filter Rows:

patient_id
4

Patient id for someone who was charged over 100$ in fees

```
18 •    select patient_id
19        from payment
20        where amount > 100.00;
21
```

Result Grid   Filter Rows:

patient_id
1
2
4

Phone number for a patient who is perscribed Valium

```
22 •    select patient.phone
23        from patient join medication on patient.patient_id = medication.patient_id
24        where medication.type = 'valium';
```

Result Grid   Filter Rows: Export: Wrap Cell Content:

phone
3456758439

The certificate number of the nurse who administered valium to any patient.

```
26 ●    select nurse.certnum
27      from nurse join medication on nurse.nurse_id = medication.nurse_id
28      where medication.type = 'valium';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

certnum
▶ 3285

The name, address and phone of any patients who had Cancer

```
30 ●    select patient.name, patient.address, patient.phone
31      from patient join record on patient.patient_id = record.patient_id
32      where disease = 'Cancer';
33
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	address	phone
▶ Jim Bonez	754 Mary Lane	3456758439

The sum of income for the hospital of payments above 100$ only

```
34 ●    select sum(payment.amount) as total_trans_over_100
35      from payment
36      where amount > 100.00;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Conter

total_trans_over_100
▶ 2250.00

The highest cost procedure to a patient.

```
38 •    select max(payment.amount) as highest_cost
39      from payment;
```

Result Grid | Filter Rows: | Export: | Wrap

highest_cost
▶ 1000.00

The number of doctors whose name starts with a K.

```
41 •    select count(physician.name) as names_start_k
42      from physician
43      where name like 'K%';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Conte

names_start_k
▶ 2

The name of the whose fee was 500.00.

```
45 •    select name
46      from patient
47   ⊖  where patient_id = (select patient_id
48                              from instructions
49                              where fee = 500.00);
50
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

name
▶ Jake Bake

The name and phone number of a patient who was given instructions from the physician with the id number 3.

```
51 •    select name, phone
52      from patient
53   ⊖  where patient_id = (select patient_id
54                              from instructions
55                              where physician_id = 3);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

name	phone
Jim Bonez	3456758439

The average cost of payments from patients who were seen by physicians 3, 4, and 5.

```
57 •    select avg(amount)
58      from payment
59   ⊖  where exists(select patient_id
60                              from instructions
61                              where physician_id > 2);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content

avg(amount)
490.000000