

Name: Emile Giovannie Zounon
Hospital db – Databases and tables

1. Create a database **“hospital_db”**
2. Exercise -01
 - Create tables for Physician, Department
 - Insert values into them
 - Understand Primary and Foreign Keys and table relationships
3. Exercise -02
 - Create tables for Affiliated_With, Procedures, Trained_In, Patient
 - Insert values into them
4. Exercise -03
 - Create tables for Nurse, Procedures, Appointment, Medication
 - Insert values into them
5. Exercise -04
 - Create tables for Prescribes, Block, Room, On_Call, Stay, Undergoes
 - Insert values into them

SQL Exercise

```
select * from department;
```

	Data Output	Explain	Messages	Notifications
	department_id [PK] integer		name character varying (30)	head integer
1		1	General Medicine	4
2		2	Surgery	7
3		3	Psychiatry	9

```
select * from physician ;
```

Data Output		Explain	Messages	Notifications
	<div>employee_id</div> <div>[PK] integer</div>	<div>first_name</div> <div>character varying (30)</div>	<div>last_name</div> <div>character varying (30)</div>	<div>position</div> <div>character varying (30)</div>
1	1	John	Dorian	Staff Internist
2	2	Elliot	Reid	Attending Physican
3	3	Christopher	Turk	Surgical Attending Physician
4	4	Percival	Cox	Senior Attending Physician
5	5	Bob	Kelso	Head Chief of Medicine
6	6	Todd	Quinlan	Surgical Attending Physician
7	7	John	Wen	Surgical Attending Physician
8	8	Keith	Dudemeister	MD Resident
9	9	Molly	Clock	Attending Psychiatrist







```
select * from affiliated_with;
```

	physician integer	department integer	primary_affiliation boolean
1	1	1	true
2	2	1	true
3	3	1	false
4	3	2	true
5	4	1	true
6	5	1	true
7	6	2	true
8	7	1	false
9	7	2	true
10	8	1	true
11	9	3	true









```
select * from patient
```

	patient_id [PK] integer	first_name character varying (30)	last_name character varying (30)	address character varying (100)	phone text	insurance_id integer	pcp integer
1	1	John	Smith	42 Foobar Lane	555-0256	68476213	1
2	2	Grace	Ritchie	37 Snafu Drive	555-0512	36546321	2
3	3	Random	J. Patient	101 Omgbbq Street	555-1204	65465421	2
4	4	Dennis	Doe	1100 Foobaz Avenue	555-2048	68421879	3

```
select * from nurse;
```

Data Output		Explain	Messages	Notifications	
	employee_id [PK] integer 	first_name character varying (30) 	last_name character varying (30) 	position character varying (20) 	registered boolean 
1	101	Carla	Espinosa	Head Nurse	true
2	102	Laverne	Roberts	Nurse	true
3	103	Paul	Flowers	Nurse	false

select * from appointment

Data Output		Explain	Messages	Notifications			
	appointment_id [PK] integer 	patient integer 	prepnurse integer 	physician integer 	start_dt_time timestamp without time zone 	end_dt_time timestamp without time zone 	examination_room text 
1	13216584	1	101	1	2008-04-24 10:00:00	2008-04-24 11:00:00	A
2	26548913	2	101	2	2008-04-24 10:00:00	2008-04-24 11:00:00	B
3	36549879	1	102	1	2008-04-25 10:00:00	2008-04-25 11:00:00	A
4	46846589	4	103	4	2008-04-25 10:00:00	2008-04-25 11:00:00	B
5	59871321	4	[null]	4	2008-04-26 10:00:00	2008-04-26 11:00:00	C
6	69879231	3	103	2	2008-04-26 11:00:00	2008-04-26 12:00:00	C
7	76983231	1	[null]	3	2008-04-26 12:00:00	2008-04-26 13:00:00	C
8	86213939	4	102	9	2008-04-27 10:00:00	2008-04-21 11:00:00	A

--find general medicine doctors name

select a.name, b.department, c.name from physician a

join affiliated_with b

join department c

on c.departmentid= b.department

on b.physician = a.employeeid

where b.department=2

```

16 -----
17 select physician.last_name, affiliated_with.department, department.name from physician
18 join affiliated_with
19 join department
20 on department.department_id= affiliated_with.department
21 on affiliated_with.physician = physician.employee_id
22 where affiliated_with.department=1;
23

```

Data Output Explain Messages Notifications

	last_name character varying (30)	department integer	name character varying (30)
1	Dorian	1	General Medicine
2	Reid	1	General Medicine
3	Turk	1	General Medicine
4	Cox	1	General Medicine
5	Kelso	1	General Medicine
6	Wen	1	General Medicine
7	Dudemeister	1	General Medicine

--find which patient - doctor visit

select a.name patient_name, b.name doctor_name from patient a

join physician b

on a.pcp = b.employeeid

```

38
39 select patient.first_name, patient.last_name, physician.last_name from patient
40 join physician
41 on patient.pcp = physician.employee_id
42
43

```

Data Output Explain Messages Notifications

	first_name character varying (30)	last_name character varying (30)	last_name character varying (30)
1	John	Smith	Dorian
2	Grace	Ritchie	Reid
3	Random	J. Patient	Reid
4	Dennis	Doe	Turk

--find room details

select * from room

select unavailable, count(*) from room

group by unavailable

--				
Data Output Explain Messages Notifications				
	unavailable boolean		count bigint	
1	false		29	
2	true		7	

--total patient count on blockcode=2

select count(*) from room where blockcode=2








21	
22	--total patient count on blockcode=2
23	select count(*) from room where block_code=2
24	
25	

Data Output Explain Messages Notifications				
	count bigint			
1	12			

--check procedure details

select * from undergoes

```
24 --check procedure details
25 select * from undergoes;
26
```

Data Output		Explain	Messages	Notifications								
	patient integer		procedure_code integer		stay integer		date_time timestamp without time zone		physician integer		nurse integer	
1	1		6		3215		2008-05-02 00:00:00		3		101	
2	1		2		3215		2008-05-03 00:00:00		7		101	
3	4		1		3217		2008-05-07 00:00:00		3		102	
4	4		5		3217		2008-05-09 00:00:00		6		[null]	
5	1		7		3217		2008-05-10 00:00:00		7		101	
6	4		4		3217		2008-05-13 00:00:00		3		103	

-- find hospital workload such as procedure time and doctors, nurse details

select a.name as doctor_name, b.name as nurse_name, c.dateundergoes as proceduretime

from physician a

join nurse b

join undergoes c

on b.employeeid= c.assistingnurse

on a.employeeid = c.physician

where c.physician=3

```

79 select physician.last_name as doctor_name, nurse.last_name as nurse_name, undergoes.date_time as procedurertime
80 from physician
81 join nurse
82 join undergoes
83 on nurse.employee_id= undergoes.nurse
84 on physician.employee_id = undergoes.physician
85 where undergoes.physician=3

```

Data Output Explain Messages Notifications

	doctor_name character varying (30)	nurse_name character varying (30)	procedurertime timestamp without time zone	
1	Turk	Espinosa	2008-05-02 00:00:00	
2	Turk	Roberts	2008-05-07 00:00:00	
3	Turk	Flowers	2008-05-13 00:00:00	

--patient medication and prscription details

select * from medication;

select a.name, b.dose, c.name,c.brand from patient a

join prescribes b

join medication c

on c.code = b.medication

on a.ssn = b.patient


```

58
59
60 select patient.last_name, prescribes.does, medication.name,medication.brand from patient
61 join prescribes
62 join medication
63 on medication.code = prescribes.medication
64 on patient.patient_id = prescribes.patient
65

```

Data Output Explain Messages Notifications

	last_name character varying (30)	does text	name character varying (30)	brand text	
1	Smith	5	Procrastin-X	X	
2	Doe	10	Thesisin	Foo Labs	
3	Doe	5	Thesisin	Foo Labs	

--trained in procedures

select * from procedures;

```

43 --trained in procedures
44 select * from procedures;
45 select * from trained_in;
46 select treatment, count(*) from trained
47

```

Data Output Explain Messages Notifications

	code [PK] integer		name character varying (30)		cost real
1		1	Reverse Rhinopodoplasty		1500
2		2	Obtuse Pyloric Recombobul...		3750
3		3	Folded Demiophthalmectomy		4500
4		4	Complete Walletectomy		10000
5		5	Obfuscated Dermogastroto...		4899
6		6	Reversible Pancreomyoplasty		5600
7		7	Follicular Demiectomy		25

select * from trained_in;

```

45 select * from trained_in;
46 select treatment, count(*) from trained_in group by treatn
47

```

Data Output Explain Messages Notifications

	physician integer	🔒	treatment integer	🔒	certificationdate date	🔒	certificationexpires date	🔒
1		3		1	2008-01-01		2008-12-31	
2		3		2	2008-01-01		2008-12-31	
3		3		5	2008-01-01		2008-12-31	
4		3		6	2008-01-01		2008-12-31	
5		3		7	2008-01-01		2008-12-31	
6		6		2	2008-01-01		2008-12-31	
7		6		5	2007-01-01		2007-12-31	
8		6		6	2008-01-01		2008-12-31	
9		7		1	2008-01-01		2008-12-31	
10		7		2	2008-01-01		2008-12-31	
11		7		3	2008-01-01		2008-12-31	
12		7		4	2008-01-01		2008-12-31	

```
select treatment, count(*) from trained_in group by treatment
```

```
46 select treatment, count(*) from trained_in group by treatment
47
```

Data Output Explain Messages Notifications

	 treatment integer	 count bigint	
1	3	1	
2	5	3	
3	4	1	
4	6	3	
5	2	3	
6	7	2	
7	1	2	