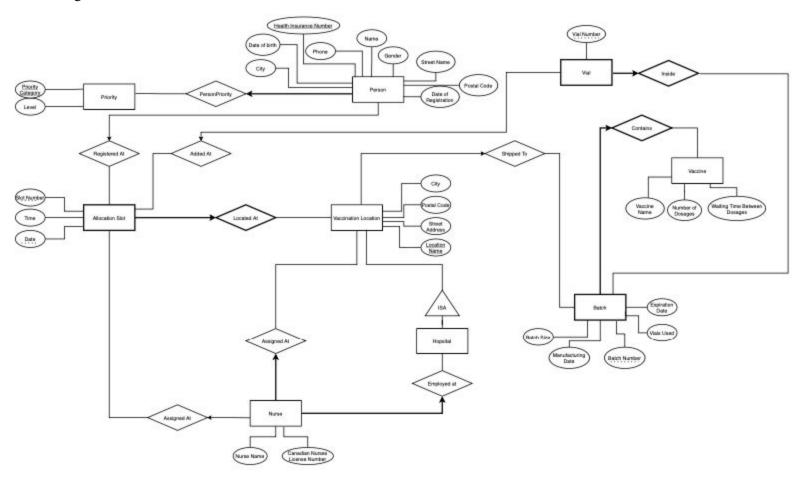
ER model

*Note no changes made to the ER model



1.

		urnum = 7		
HINSURNUM	REGDATE	CNAME	NAME	

2.

```
[Parsa Yadollahi]$ javac VaccineApp.java && java VaccineApp
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option: 1
Please entre the relevant information:
        hinsurnum VARCHAR(50) NOT NULL
        name VARCHAR(50)
        gender VARCHAR(50) NOT NULL,
        birthdate DATE NOT NULL,
        phone VARCHAR(50) NOT NULL,
        city VARCHAR(50) NOT NULL,
        postalcode VARCHAR(50) NOT NULL,
        streetaddr VARCHAR(50) NOT NULL,
        regdate DATE NOT NULL,
        cname VARCHAR(50) NOT NULL,
Parsa Y
1111-01-1
514-123-4321
Montreal
393939
streetz
1111-01-2
Students
SELECT hinsurnum FROM resident WHERE hinsurnum = 7
INSERT INTO resident VALUES ( '7', 'Parsa Y', 'M', '1111-01-1', '514-123-4321', 'Montreal', 'J9J9J9', 'streetz', '1111-01-2', 'Students')
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option:
```

3.

NME	GENDER	BIRTHDATE PHONE	CLTY	POSTALCODE	STREETADOR	REGDATE CHAME
Tony		01/01/1111 514-123-4567	Montreal	AIAIAI	1 one	#1/#2/1111 Elderly
Jane Doe		02/01/1111 514-123-4567	Montreal	828282	2 two	12/18/2828 Teachers
Parsa		03/01/1111 514-123-4567	Montreal	ggg	3 three	#3/#2/1111 Teachers
Montana		84/81/1111 514-123-4567	Montreal	040404	4 four	04/02/1111 Students
GME to the moon please		05/01/1111 514-123-4567	Montreal	ESESES	5 five	05/02/1111 Everbody Else
Khafveh		01/01/1111 514-123-1234	Montreal	A2A2A2	2 eight	01/02/1111 Elderly
Parsa Y		01/01/1111 514-123-4321	Montreal	90,000	streetz	01/02/1111 Students
	Yony Jame Doe Persa Montana GME to the moon please Khafveh	Tony M Jane Doe F Parsa M Montana M GME to the moin please F Khafveh M	Tony	Tony M 81/81/111 534-123-4567 Montreal Jane Doe F 82/81/111 534-123-4567 Montreal Parsa H 83/81/111 534-123-4567 Montreal Montana M 84/81/111 534-123-4567 Montreal GME to the soin plasse F 85/81/111 534-123-4567 Montreal Khafveh H 81/81/111 534-123-1234 Montreal	Tony M 81/81/1111 534-123-667 Montreal AAAAI Jace Doe F 82/81/1111 534-123-667 Montreal EURE Parea M 83/81/1111 534-123-667 Montreal CICIC Montrea M 48/81/1111 534-123-667 Montreal DRIVE GME to the soon plasse F 85/81/1111 534-123-1247 Montreal ESSES Marteh M 81/81/1111 534-123-1244 Montreal AAAAQ	Tony N 8 81/81/3113 514-122-4667 Nontreal AAAAL 1 noe Jane Doe F 62/81/3113 514-122-4667 Nontreal BZRIZ 2 two Parsa N 62/82/3113 514-122-4667 Nontreal CICIC 3 three Nontrean N 62/82/3113 514-122-4667 Nontreal DABAG 4 four OPE to the moon please F 85/81/3113 514-122-4667 Nontreal BESES 3 fave Northen N 62/82/3113 514-122-4667 Nontreal AAAAL 2 sight

4.

```
VectorApp Main Menu

1. Assign a slot to a Person
2. Assign a slot to a Person
3. Enter Vectosiation information
3. Enter Vectosiation information
4. Enter Vectosiation information:

Please Enter!

Please Enter!

himurums VARCHAR(58) NOT NULL
name VARCHAR(58) NOT NULL
birthodes ONT NOT NULL
city VARCHAR(58) NOT NULL
postalcode VARCHAR(58) NOT NULL,
streetedin VARCHAR(58) NOT NULL,
crame VARCHAR(58) NOT NULL,
streetedin VARCHAR(58) NOT NULL,
crame VARCHAR(58) NOT NULL,
streetedin VARCHAR(58) NOT NULL,
streetedin VARCHAR(58) NOT NULL,
crame VARCHAR(58) NOT NULL,
crame VARCHAR(58) NOT NULL,
postalcod VARCHAR(58) NOT NULL,
streetedin VARCHAR(58) NOT NULL,
crame VARCHAR(
```

* I updated the phone number only

5.

db2 ⇒ select * from resident							
HINSURNUM	NAME	GENDER	BERTHDATE PHONE	CLTY	POSTALCODE	STREETADOR	REGDATE CNAME
1	Tony	М	01/01/1111 514-123-4567	Montreal	ATATAT	1 one	01/02/1111 Elderly
	Jane Doe		82/81/1111 514-123-4567	Montreal	828282	2 two	12/10/2020 Teachers
3	Parsa		83/81/1111 514-123-4567	Montreal	999	3 three	83/82/1111 Teachers
4	Montana		84/81/1111 514-123-4567	Montreal	D4D4D4	4 four	04/02/1111 Students
	GME to the moon please		85/81/1111 514-123-4567	Montreal	ESESES	5 five	85/02/1111 Everbody Else
	Khafveh		01/01/1111 514-123-1234	Montreal	AZAZAZ	2 eight	01/02/1111 Elderly
	Parsa Y		01/01/1111 514-321-4321	Montreal	393939	streetz	01/02/1111 Students

* Notice only the phone number change on column 5. From 514-**123**-4321 to 514-**321**-4321

7	Parsa Y	М	01/01/1111 514-123-4321
			<u> </u>
7	Parsa Y	м	01/01/1111 514-321-4321

<u>b)</u>

1

db2 ⇒> SELECT * from slot WHERE hinsurnum = 7							
SLOTNUM				CNLNUMBER	VIALNUMBER BATCHNUMBER VNAME	HINSURNUM	ASGNDATE
8 recor							

* the new PERSON that we added is not in the slots table meaning they have not been vaccinated yet

2.

db2 => SE	LECT * FROM	SL0T						
SLOTNUM	VTIME	VDATE	LNAME	CNLNUMBER	VIALNUMBER	BATCHNUMBER VNAME	HINSURNUM	ASGNDATE
	1 12:30:00	83/28/2821	Jewish General	1	1	1 Moderna	1	03/19/2021
	2 13:20:00	83/28/2821	Jewish General			- Moderna		03/16/2021
	3 14:30:00	83/28/2821	Jewish General	1	2	2 Moderna	3	03/19/2021
	4 15:30:00	83/28/2821	Jewish General	2		2 Moderna	4	03/19/2021
			Jewish General	3		5 Pfizer-BioNTech	2	82/85/2821
			Jewish General	1	5	5 Pfizer-BioNTech		01/01/2020
	7 13:30:00	81/81/2826	Montreal			5 Pfizer-BioNTech		01/01/2020
7 recor	d(s) select	ed.						

These are the available slots.

```
[Parsa Yadollahi]$ javac VaccineApp.java && java VaccineApp
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option: 2
Please entre the relevant information:
        Social Insurance Number
        slotnum INTEGER NOT NULL
        vtime TIME NOT NULL
        vdate VARCHAR(50) NOT NULL,
        lname VARCHAR(50) NOT NULL,
13:20
2021-03-20
Jewish General
SELECT COUNT(*) FROM slot WHERE vtime = '13:20' AND hinsurnum = '7' AND vdate = '2021-03-20' AND lname = 'Jewish General';
UPDATE slot SET hinsurnum = '7', asgndate = '2021-03-16' WHERE slotnum='2' AND vdate='2021-03-20' AND lname = 'Jewish General' AND vtime = '13:20:00'
VaccineApp Main Menu
1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option: |
```

<pre>=> select * from slot;</pre>						
NUM VTIME VDATE	LNAME	CNLNUMBER	VIALNUMBER	BATCHNUMBER VNAME	HINSURNUM	ASGNDATE
1 12:30:00 03/20/202	1 Jewish General	1	1	1 Moderna	1	03/19/2021
2 13:20:00 03/20/202	1 Jewish General			- Moderna	7	03/16/2021
3 14:30:00 03/20/202		1	2	2 Moderna	3	03/19/2021 03/19/2021 02/05/2021 01/01/2020 01/01/2020
4 15:30:00 03/20/202	1 Jewish General	2	1	2 Moderna	4	03/19/2021
5 16:30:00 02/06/202	1 Jewish General	3	5	5 Pfizer-BioNTech	2	02/05/2021
6 12:30:00 01/01/202	0 Jewish General	1	5	5 Pfizer-BioNTech		81/81/2028
7 13:30:00 01/01/202	0 Montreal	1	5	5 Pfizer-BioNTech	5	01/01/2020

Notice on the 9th column of the 2nd row there is now the resident with health insurance number 7 allocated.

4.

```
[Parsa Yadollahi]$ javac VaccineApp.java && java VaccineApp
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option: 2
Please entre the relevant information:
        Social Insurance Number
       slotnum INTEGER NOT NULL
        vtime TIME NOT NULL
        vdate VARCHAR(50) NOT NULL,
        lname VARCHAR(50) NOT NULL,
13:20
2021-03-20
Jewish General
SELECT hinsurnum FROM slot WHERE vtime = '13:20' AND slotnum = '2' AND vdate = '2021-03-20' AND lname = 'Jewish General';
This slot is already taken
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
       3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option: |
```

db2 => select * from slot;				
SLOTNUM VTIME VDATE LNAME	CNLNUMBER	VIALNUMBER BATCHNUMBER VNAME	HINSURNUM	ASGNDATE
1 12:30:00 03/20/2021 Jewish General 2 13:20:00 03/20/2021 Jewish General	1 -	1 1 Moderna – - Moderna	1 7	03/19/2021 03/16/2021
3 14:30:00 03/20/2021 Jewish General 4 15:30:00 03/20/2021 Jewish General 5 16:30:00 02/06/2021 Jewish General	1 2 2	2 2 Moderna 1 2 Moderna 5 5 Pfizer-BioNTech	3	83/19/2021 83/19/2021
5 10:30:00 01/01/2020 Jewish General 6 12:30:00 01/01/2020 Jewish General 7 13:30:00 01/01/2020 Montreal	1	5 5 Frizer-BioNech 5 5 Pfizer-BioNfech 5 5 Pfizer-BioNfech	5	03/19/2021 02/05/2021 01/01/2020 01/01/2020
7 record(s) selected.	S-900		400	

Health insurance number is still 7 and not 1 like specified above

<u>c)</u>

1.

```
db2 => select * from vaccine where vname = 'Pfizer-BioNTech' AND doses = 2

VNAME WAITPERIOD DOSES

Pfizer-BioNTech 4 2

1 record(s) selected.
```

db2 => select count(*) FROM slot where hinsurnum=5 and vname='Pfizer-BioNTech'

1____

1 record(s) selected.

3

SLOTNUM	VTIME	VDATE	LNAME	CNLNLMBER	VIALNUMBER	BATCHNU	iber vname	HINSURNUM	ASGNDATE
Section Control	1 12:30:00	03/20/2021	Jewish General				1 Moderna	1	03/19/2021
	2 13:28:86	03/20/2021	Jewish General				- Moderna		03/16/2021
38	3 14:30:00	03/20/2021	Jewish General	1			2 Moderna	3	03/19/2021
1	4 15:30:00	03/20/2021	Jewish General	2			2 Moderna	4	03/19/2021
2	5 16:30:00	04/04/2021	Jewish General	3			5 Pfizer-BioNTech		02/05/2021
	6 12:30:00	01/01/2020	Jewish General	1			5 Pfizer-BioNTech	5	01/01/2020
100	7 13:30:00	01/01/2020	Montreal				5 Pfizer-BioNTech		01/01/2020
7 record	(s) select	ted.							

Adding another slot to slotnum 5

```
Please entre the relevant information:

Social Insurance Number slotnum INTEGER NOT NULL vtime TIME NOT NULL vtime TIME NOT NULL, lname VARCHAR(50) NOT NULL, lname VARCHAR(50) NOT NULL, lname VARCHAR(50) NOT NULL, lname VARCHAR(50) NOT NULL, State of the state of t
```

4.

SLOTINUM	VTIME	VDATE	LNAME	CNLNUMBER	VIALNUMBER	BATCHN	UMBER VNAME	HINSURNUM	ASGNDATE
Salamaoni	1 12:30:0	03/20/2021	Jewish General	s anno na real mondra a domini na sa para a militar de la mana a anno de la mandra de la mandra de la mandra d La mandra de la mandra del mandra de la mandra del la mandra de la mandra del la mandra del la mandra de la mandra de la mandra del la m		ı	1 Moderna	il dan masona in il Maderini in Masona in masona di indica di masona di il dalla masona di il dalla di masona di il dalla di i	03/19/2021
	2 13:20:0	03/20/2021	l Jewish General				- Moderna		83/16/2821
	3 14:30:0	03/20/2021	l Jewish General	1		2	2 Moderna	3	83/19/2821
100	4 15:30:0	8 83/28/2821	l Jewish General	2		i .	2 Moderna	4	03/16/2021 03/19/2021 03/19/2021
	5 16:30:0	8 84/84/2021	l Jewish General	3			5 Pfizer-BioNTech	<u> </u>	02/05/2021
-73	6 12:30:0	8 81/81/2828	Jewish General	1		5	5 Pfizer-BioNTech	5	01/01/2020
	7 12.20.0	0 01/01/3030	Manhanal				E Dédage DigNToch	E .	81/81/2828

<u>d)</u>

1.

OTNUM VTIME VDATE LNAME	CNLNUMBER	VIALNUMBER BATCH	NUMBER VNAME	HINSURNUM	ASGNDATE
1 12:30:00 03/20/2021 Jewish General	1	1	1 Moderna	1	03/19/202 03/16/202 03/19/202 03/19/202 02/05/202 01/01/202 01/01/202
2 13:20:00 03/20/2021 Jewish General					03/16/202
3 14:30:00 03/20/2021 Jewish General	1	2	2 Moderna	3	03/19/202
4 15:30:00 03/20/2021 Jewish General	2	1	2 Moderna	4	03/19/202
5 16:30:00 04/04/2021 Jewish General	3	5	5 Pfizer-BioNTech		02/05/202
6 12:30:00 01/01/2020 Jewish General	1	5	5 Pfizer-BioNTech	5	01/01/202
7 13:30:00 01/01/2020 Montreal	1	5	5 Pfizer-BioNTech	5	01/01/202

This is before administering the vaccine, nurse and vial to resident with health insurance number 7

```
[Parsa Yadollahi]$ javac Vaccjavac VaccineApp.java && java VaccineApp
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option: 3
Please entre the relevant information:
        slotnum INTEGER NOT NULL
        vtime TIME NOT NULL
        vdate VARCHAR(50) NOT NULL,
        lname VARCHAR(50),
        cnlnumber VARCHAR(50),
        vialnumber INTEGER,
        batchnumber INTEGER,
        vname VARCHAR(50),
        hinsurnum VARCHAR(50),
        asgndate DATE,
13:20
2021-03-20
Jewish General
Moderna
SELECT vname, vdate FROM SLOT WHERE hinsurnum = 7
SELECT * FROM nurseassignments WHERE vdate='2021-03-20' AND lname = 'Jewish General' AND cnlnumber= '2';
UPDATE slot SET cnlnumber = 2, vialnumber='2', batchnumber= '2', vname='Moderna' WHERE lname = 'Jewish General' AND vdate = '2021-
03-20' AND slotnum = '2';
Resident with Health Insurance Number 7 has successfully been assigned to inputed slot.
```

SLOTNUM	VTIME	VDATE	LNAME	CNLNUMBER	VIALNUMBER	BATCHNUMBER	R VNAME	HINSURNUM	ASGNDATE
-	1 12:30:00	03/20/2021	Jewish General	1	1	1	l Moderna	1	03/19/2021
			Jewish General	2	2	2	? Moderna	7	03/16/2021
÷ ·			Jewish General	1	2	2	2 Moderna	3	03/19/2021
7			Jewish General		1		2 Moderna	4	03/19/2021 02/05/2021 01/01/2020
			Jewish General	3	5		Pfizer-BioNTech		02/05/2021
9	6 12:30:00	01/01/2020	Jewish General	1	5		Pfizer-BioNTech	5	01/01/2020
11	7 13:30:00	01/01/2020	Montreal	1	5	5	Ffizer-BioNTech		01/01/2020
7 recor	d(s) selecte	ed.							

As you can see now slot number 2 with health insurance number 7 has been assigned to a nurse with canadian licence number 2, vial number 2 and batch number 2 and vaccine Moderna.

2. The query I used is:

```
SELECT t1.* from (SELECT t1.*, t2.nname from (SELECT t1.*, t2.name FROM slot AS t1 JOIN resident AS t2 ON t1.hinsurnum = t2.hinsurnum) AS t1 JOIN nurse as t2 ON t1.cnlnumber = t2.cnlnumber) as t1 JOIN vial as t2 ON t1.vname = t2.vname AND t1.batchnumber = t2.batchnumber and t1.vialnumber = t2.vialnumber
```

Which resulted in:

SLOTNUM	VTIME	VDATE	LNAME	CNLNUMBER	VIALNUMBER BA	TCHNUMBER VNAME	HINSURNUM	ASGNDATE NAME	NVAME
	2 13:20:0 3 14:30:0 4 15:30:0 6 12:30:0	03/20/202 03/20/202 03/20/202 03/20/202 01/01/202	21 Jewish General 21 Jewish General 21 Jewish General 21 Jewish General 20 Jewish General 20 Jewish General 20 Montreal	1 2 1 2 1	1 2 2 1 1 5	1 Moderna 2 Moderna 2 Moderna 2 Moderna 5 Pfizer-BioNTech 5 Pfizer-BioNTech	1 7 3 4 5 5	83/19/281 Tony 83/16/281 Paris Y 83/16/281 Paris Y 83/19/281 Paris S 83/19/2821 Montana 81/81/2828 GME to the moon please 91/81/2828 GME to the moon please	Naneo f ARandonNurse GNE Naneo f ARandonNurse GNE Naneo f ARandonNurse Naneo f ARandonNurse
6 rec	rd(s) selec	red.							

<u>e)</u>

1

SLOTNUM	VTIME	VDATE	LNAME	CNLNUMBER	VIALNUMBER	BATCHNUMBER	VNAME	HINSURNUM	ASGNDATE
Secretario de la company	1 12:30:00	03/20/2021	Jewish General	1		1	Moderna	1	83/19/2821
	2 13:20:00	03/20/2021	Jewish General	2	2	2	Moderna		03/16/2021 03/19/2021 03/19/2021 02/05/2021 01/01/2020 01/01/2020
			Jewish General	1	7		Moderna	3	03/19/2021
			Jewish General	2	1		Moderna	4	83/19/2821
			Jewish General	3	5		Pfizer-BioNTech		02/05/2021
			Jewish General				Pfizer-BioNTech		01/01/2020
7	7 13:30:00	01/01/2020	Montreal	1	5	5	Pfizer-BioNTech	5	01/01/2020
-	d(s) select								

We're going to be using the resident with health insurance number 3 which has taken one vaccine on Feb 6 2020. To show this in more details we use the query:

```
SELECT count(*) AS num_vaccines_taken, t1.name as resident_name from (SELECT t1.*, t2.name FROM slot AS t1 LEFT JOIN resident AS t2 ON t1.hinsurnum = t2.hinsurnum) as t1 WHERE t1.hinsurnum = 3 AND vdate < (SELECT current date FROM sysibm.sysdummy1) GROUP BY t1.name
```

NUM_VACCINES_TAKEN RESIDENT_NAME 1 Parsa

Which returns all vaccines taken by the person with health insurance number 3 to today.

SLOTNUM	VTIME	VDATE	LNAME	CNLNUMBER	VIALNUMBER	BATCHNUMBER VNAME	HINSURNUM	ASGNDATE
	2 13:20:00 3 14:30:00 4 15:30:00 5 16:30:00	0 03/20/2021 0 02/06/2021 0 03/20/2021 0 04/04/2021	Jewish General Jewish General Jewish General Jewish General Jewish General	1 2 1 2 3	1 2 2 1 2	1 Moderna 2 Moderna 2 Moderna 2 Moderna 3 Moderna	1 7 3 4	83/19/2021 83/18/2021 83/18/2021 83/19/2021 83/19/2021 82/85/2021 81/81/2020 81/81/2020
7 recor		01/01/2020	Jewish General Montreal	1	5 5	5 Pfizer-BioNTech 5 Pfizer-BioNTech	5 5	01/01/2020 01/01/2020

We are going to assign slot 5 to resident with health insurance number 3

```
[Parsa Yadollahi]$ javac VaccineApp.java && java VaccineApp
VaccineApp Main Menu
              1. Add a Person
              2. Assign a slot to a Person
3. Enter Vaccination information
4. Exit Application
Please Enter Your Option: 3
Please entre the relevant information:
              slotnum INTEGER NOT NULL
              vtime TIME NOT NULL
              vdate VARCHAR(50) NOT NULL,
              lname VARCHAR(50),
              cnlnumber VARCHAR(50),
              vialnumber INTEGER,
              batchnumber INTEGER,
              vname VARCHAR(50),
             hinsurnum VARCHAR(50).
              asgndate DATE,
16:30
2021-04-4
Jewish General
3
Moderna
SELECT vname, vdate FROM SLOT WHERE hinsurnum = 3
SELECT * FROM nurseassignments WHERE vdate='2021-04-4' AND lname = 'Jewish General' AND cnlnumber= '3';
UPDATE slot SET cnlnumber = 3, vialnumber='2', batchnumber= '3', vname='Moderna' WHERE lname = 'Jewish General' AND vdate = '2021-04-4' AND slotnum = '5';
Resident with Health Insurance Number 3 has successfully been assigned to inputed slot.
VaccineApp Main Menu
1. Add a Person
             2. Assign a slot to a Person
3. Enter Vaccination information
4. Exit Application
  Please Enter Your Option: |
```

SLOTNUM	VTIME	VDATE	LNAME	CNLNUMBER	VIALNUMBER	BATCHNUMBE	ER VNAME	HINSURNUM	ASGNDATE
			Jewish General Jewish General	1	1		1 Moderna 2 Moderna	1	03/19/2021
	3 14:30:00	82/86/2821	Jewish General Jewish General	1	2		2 Moderna 2 Moderna	3	83/19/2821
	5 16:30:00	84/84/2821	Jewish General Jewish General	3	2		z moderna 3 Moderna 5 Pfizer-BioNTech	-	83/16/2021 83/19/2021 83/19/2021 82/05/2021 81/01/2020
	7 13:30:00	81/81/2828		1	5		5 Pfizer-BioNTech 5 Pfizer-BioNTech 5 Pfizer-BioNTech	5	81/81/2828 81/81/2828 83/19/2821
			Jewish General	2	•		5 PTIZET-Blowlech	-	03/19/2021
8 recor	d(s) select	ed.							

We are going to try to insert resident with health insurance number 3 into slot 8 which uses vaccine Pfizer-BioNTech and vialnumber 5.

```
[Parsa Yadollahi]$ javac VaccineApp.java && java VaccineApp
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option: 3
Please entre the relevant information:
        slotnum INTEGER NOT NULL
        vtime TIME NOT NULL
        vdate VARCHAR(50) NOT NULL,
        lname VARCHAR(50),
        cnlnumber VARCHAR(50),
        vialnumber INTEGER,
        batchnumber INTEGER,
        vname VARCHAR(50),
        hinsurnum VARCHAR(50),
        asgndate DATE,
11:11
2022-02-2
Jewish General
Pfizer-BioNTech
SELECT vname, vdate FROM SLOT WHERE hinsurnum = 3
SELECT * FROM nurseassignments WHERE vdate='2022-02-2' AND lname = 'Jewish General' AND cnlnumber= '2';
ERROR: The Resident has been vaccinated with a different Vaccine
VaccineApp Main Menu
        1. Add a Person
        2. Assign a slot to a Person
        3. Enter Vaccination information
        4. Exit Application
 Please Enter Your Option:
```

As you can see, I am unable to allocate that slot to that resident because they do not have the same vaccine name.

3. Indexing

```
db2 => CREATE INDEX resident_phone ON resident(phone)
DB20000I The SQL command completed successfully.
db2 => |
```

Both are unique to the individual which means they can both identify a resident. There are both good and bad while identifying with indexing vs. phone numbers.

<u>Case 1</u>: Assuming we know both the phone number and insurance number of the individual we are looking for, then using the indexing would be faster since it is a primary key and an integer while the phone number is a varchar. My implementation of the phone field is a varchar with length 50 (which could be larger) while the indexing would be an integer. Since searching for an int is faster than a varchar, this would take less time since integers take less space.

<u>Case 2</u>: Now, having the phone number will allow us to search a specific area code which narrows down the number of addresses we would like to search for. Meaning that searching using the phone number could potentially be more practical/efficient.

4. Data Visualization

Command: EXPORT TO /home/2019/pyadol/COMP-421/COMP-421/P3/p3_q4_data.csv OF DEL MESSAGES ON SELECT vdate, count(vialnumber) as num_people FROM slot WHERE hinsurnum IN (SELECT hinsurnum FROM slot GROUP BY hinsurnum HAVING COUNT(hinsurnum) = 1) GROUP BY vdate

Row Labels	Sum of num_people
2021-02-06	6
2021-03-20	8
2022-02-02	7
2022-02-03	10
2022-02-04	12
2022-02-05	30
Total	73

