MILESTONE 3 – SQL SCRIPTING

1. Create Database

```
create database ipaln;
use ipaln;
```

2. Create Tables without Index, PKs, and FKs;

- a. Define which entities will be your PK and Fks and make them "Unique" during to DDL statement.
 - b. If you have any "Constrains" go ahead create in this stage.

```
CREATE TABLE `deals` (
  `deals_id` int NOT NULL,
  `agents_id` int,
  `property_id` int,
  `owners_id` int,
  `buyer_id` int,
  `realtors_id` int,
  `realtors_id` int,
  `escrow_id` int,
  `lender_id` int,
  `attorney_id` int
);
alter table `deals` ADD constraint `PK_deals_id` PRIMARY KEY(`deals_id`);
```

```
CREATE TABLE `property` (
  `property_id` int NOT NULL,
  `legal_opinion` varchar(255),
  `property_address` varchar(255)
);
alter table `property` ADD constraint `PK_property_id` PRIMARY KEY(`property_id`);
```

```
CREATE TABLE `attorney` (
  `attorney_id` int NOT NULL,
  `attorney_name` varchar(255),
  `attorney_phno` long,
  `attorney_address` varchar(255),
  `state_id` long
);
alter table `attorney` ADD constraint `PK_attorney_id` PRIMARY KEY(`attorney_id`);
```

```
CREATE TABLE `lender` (
  `lender_id` int,
  `lender_name` varchar(255),
  `lender_phno` long,
  `lender_address` varchar(255),
  `state_id` long,
  `bank_acc` varchar(255)
);
alter table `lender` ADD constraint `PK_lender_id` PRIMARY KEY(`lender_id`);

CREATE TABLE `escrow` (
  `escrow_id` int,
  `escrow_name` varchar(255),
  `escrow_phno` long,
  `escrow_address` varchar(255),
  `state_id` long,
  `notary_id` long
);
alter table `escrow` ADD constraint `PK_escrow_id` PRIMARY KEY(`escrow_id`);
```

```
CREATE TABLE `realtors` (
  `realtors_id` int,
  `realtors_name` varchar(255),
  `realtors_phno` long,
  `realtors_address` varchar(255),
  `state_id` long,
  `notary_id` long,
  `commission_acc` varchar(255)
);
alter table `realtors` ADD constraint `PK_realtors_id` PRIMARY KEY(`realtors_id`);
```

```
CREATE TABLE `agents` (
  `agents_id` int,
  `agents_name` varchar(255),
  `agents_phno` long,
  `agents_address` varchar(255),
  `state_id` long
);
alter table `agents` ADD constraint `PK_agents_id` PRIMARY KEY(`agents_id`);
```

```
CREATE TABLE `owners` (
  `owners_id` int,
  `owners_name` varchar(255),
  `owners_phno` long,
  `owners_address` varchar(255),
  `state_id` long,
);
alter table `agents` ADD constraint `PK_agents_id` PRIMARY KEY(`agents_id`);
```

```
CREATE TABLE `Prop_owners` (
   `property_id` int,
   `owners_id` int,
);
alter table `prop_owners`
Add constraint `fk_po_prop_id` foreign key(`property_id`) references
   `property`(`property_id`);
alter table `prop_owners`
Add constraint `fk_po_own_id` foreign key(`owners_id`) references
   `owners`(`owners_id`);
alter table `prop_owners` ADD constraint `PK_propowner_id` PRIMARY
KEY(`property_id`);
```

```
CREATE TABLE `buyer` (
  `buyer_id` int,
  `buyer_name` varchar(255),
  `buyer_phno` long,
  `buyer_address` varchar(255),
  `buyer_type` varchar(255),
  `state_id` long
);
alter table `buyer` ADD constraint `PK_fha_buyer_id` PRIMARY KEY(`buyer_id`);
```

```
CREATE TABLE `fha_buyers` (
  `buyer_id` int PRIMARY KEY,
  `insurance_ID` varchar(255),
  `insurance_fee` int
);
alter table `fha_buyers`
Add constraint `fk_buyer_id` foreign key(`buyer_id`) references
  `buyer`(`buyer_id`);
```

```
CREATE TABLE `va_buyers` (
  `buyer_id` int PRIMARY KEY,
  `military_ID` int UNIQUE,
  `years_of_service` int
);
alter table `va_buyers`
Add constraint `fk_va_buyer_id` foreign key(`buyer_id`) references
  `buyer`(`buyer_id`);
```

```
CREATE TABLE `commercial_buyers` (
  `buyer_id` int PRIMARY KEY,
  `ssn` long,
  `tax_id` varchar(255),
  `owner_names` varchar(255) );
alter table `commercial_buyers`
Add constraint `fk_cm_buyer_id` foreign key(`buyer_id`) references
  `buyer`(`buyer_id`);
```

```
ALTER TABLE 'deals' ADD FOREIGN KEY ('agents_id') REFERENCES 'agents'
('agents_id');

ALTER TABLE 'deals' ADD FOREIGN KEY ('property_id') REFERENCES 'property'
('property_id');

ALTER TABLE 'deals' ADD FOREIGN KEY ('owners_id') REFERENCES 'owners'
('owners_id');

ALTER TABLE 'deals' ADD FOREIGN KEY ('buyer_id') REFERENCES 'buyer' ('buyer_id');

ALTER TABLE 'deals' ADD FOREIGN KEY ('realtors_id') REFERENCES 'realtors'
('realtors_id');

ALTER TABLE 'deals' ADD FOREIGN KEY ('escrow_id') REFERENCES 'escrow'
('escrow_id');

ALTER TABLE 'deals' ADD FOREIGN KEY ('lender_id') REFERENCES 'lender'
('lender_id');

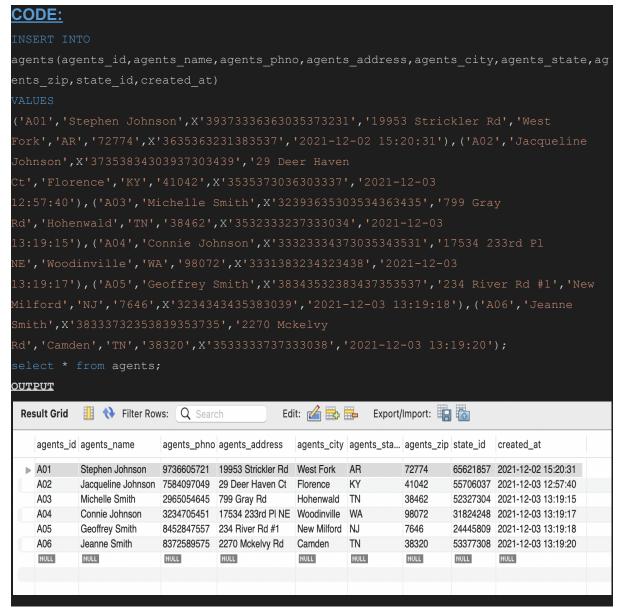
ALTER TABLE 'deals' ADD FOREIGN KEY ('attorney_id') REFERENCES 'attorney'
('attorney_id');
```

3. Testing all your tables before the load any data

All Tables are successfully Created.

4. Inserting data in each table (making sure referential integrity is in place)

AGENTS TABLE:



ATTORNEY TABLE:

```
CODE:
INSERT INTO
attorney(attorney_id,attorney_name,attorney_phno,attorney_address,attorney_city,att
orney_state,attorney_zip,state_id,created_at)
```

```
VALUES('Z01','Bob Newhart',X'38373035313336393730','703 S Main St','Bald
St','Monticello','AR','71655',X'3836323931323538','2021-12-03
15:05:33'),('Z03','Leanord Hofstader',X'38373035313336393732','1663 Byers
St','Batesville','AR','72501',X'3439353631323839','2021-12-03
15:05:33'),('Z06','James Law',X'38373035313336393735','962 County 951
Rd','Brookland','AR','72417',X'3131343331343934','2021-12-03 15:05:33');
OUTPUT
                                            Edit: 🚄 🖶 🖶 Export/Import: 📳 🌄
            Filter Rows: Q Search
    attorney_id attorney_name
                        attorney_phno attorney_address attorney_city attorney_sta... attorney_z... state_id created_at
   ▶ Z01
                                                          AR
                                                                    72010
            Bob Newhart
                         8705136970
                                   703 S Main St
                                                Bald Knob
                                                                             66628529 2021-12-03 15:05:33
    Z02
            Sheldon Cooper
                         8705136971
                                   940 N Chester St
                                                Monticello
                                                          AR
                                                                    71655
                                                                             86291258 2021-12-03 15:05:33
```

Batesville

Mabelvale

NULL

Heber Springs AR

AR

AR

AR

NULL

72501

72543

72103

72417

NULL

NULL

49561289 2021-12-03 15:05:33

94268512 2021-12-03 15:05:33

87937836 2021-12-03 15:05:33

11431494 2021-12-03 15:05:33

NULL

Z03

Z04

Z05

Z06

NULL

Leanord Hofstader 8705136972

Penny Lee

Shang Chi

James Law

NULL

8705136973

8705136974

8705136975

NULL

1663 Byers St

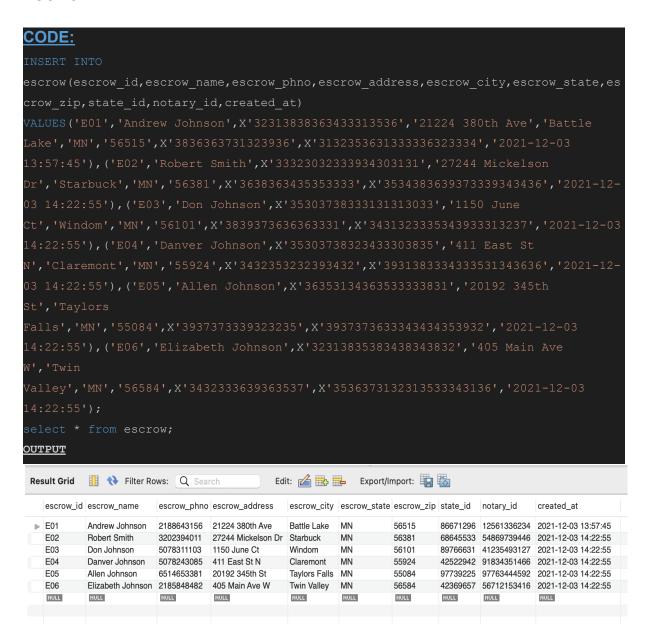
NULL

4 Mossy Oak Ln

10401 High Rd E

962 County 951 Rd Brookland

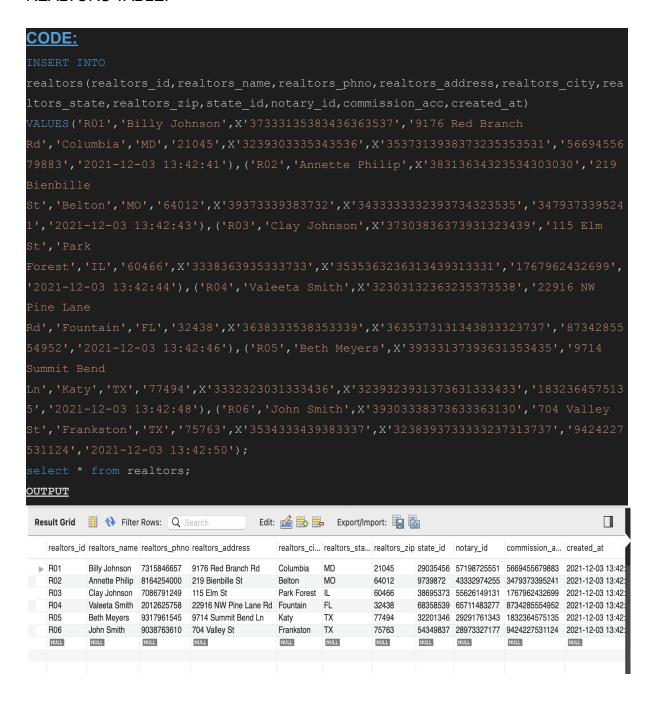
ESCROW TABLE:



LENDER TABLE:

CODE: INSERT INTO lender(lender id,lender name,lender phno,lender address,lender city,lender state,le nder zip, state id, bank acc, created at) 14:56:02'),('L02','Deborah Smith',X'34363936363931323632','605 S Spring St','Fordyce','AR','71742',X'3831343239333234','88213886488','2021-12-03 Memphis','AR','72301',X'3932353633363736','91117998755','2021-12-03 14:56:02'),('L06','Elizibeth White',X'34363936363931323636','703 S Main St','Bald OUTPUT Result Grid Filter Rows: Q Search Edit: 🚄 🖶 🖶 Export/Import: 识 🖏 lender_id lender_name lender_phno lender_address lender_city lender_state lender_zip state_id bank_acc created_at 4696691261 210 W Merriman Ave Wynne 72396 18712583 97666634547 2021-12-03 14:56:02 ▶ L01 Abbi Johnson AR L02 Deborah Smith 4696691262 605 S Spring St Fordyce AR 71742 81429324 88213886488 2021-12-03 14:56:02 L03 Clay Jenson 4696691263 119 W University C2 Magnolia AR 71753 16991919 67275833228 2021-12-03 14:56:02 L04 Max Black 4696691264 608 S 25th St West Memphis AR 72301 92563676 91117998755 2021-12-03 14:56:02 L05 Caroline Channing 4696691265 6166 A Green Ln Everton AR 72633 62511823 28661252759 2021-12-03 14:56:02 AR L06 Elizibeth White 4696691266 703 S Main St Bald Knob 72010 28515397 99185597829 2021-12-03 14:56:02 NULL NULL NULL NULL NULL NULL NULL

REALTORS TABLE:



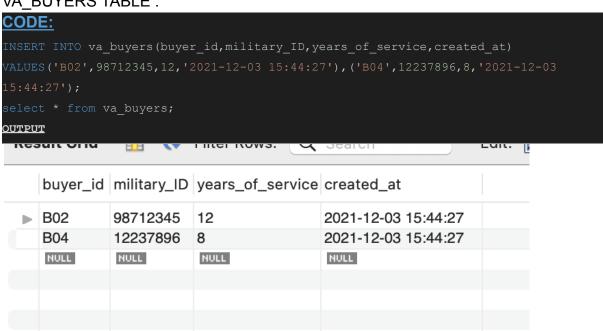
BUYER TABLE:

```
CODE:
buyer(buyer id,buyer name,buyer phno,buyer address,buyer city,buyer state,buyer zip
, state id, buyer type, bank acc, created at)
Buyer',X'33343739333733333935323432','2021-12-03 15:34:37'),('B02','James
Buyer',X'31373637393632343333363939','2021-12-03 15:34:37'),('B03','John
Buyer',X'38373334323835353535383532','2021-12-03 15:34:37'),('B04','Lesly
Shore',X'38333732353839373734','22916 N Pine Lane
Rd','Fountain','FL','32438',X'3831343838313438','VA
Kimberly',X'38333732353839373735','9720 Summit Bend
Ln','Katy','TX','77494',X'3133363437323331','CA
Buyer',X'31373637393632343332363030','2021-12-03 15:34:37');
select * from buyer;
OUTPUT
 Result Grid III 💎 Filter Rows: Q Search
                                        Edit: 🚄 🖶 📙 Export/Import: 📳 🐻
   buyer_id buyer_name
                    buyer_phno buyer_address
                                            buyer_city buyer_state buyer_zip state_id buyer_type bank_acc
                                                                                          created at
                                                                  15199553 FHA Buyer 3479373395242 2021-12-03 15:34:37
                                                           21045
  ▶ B01
         Chris Radar
                    8372589771 912 A Red Branch Rd #M Columbia MD
   B02
         James Connie 8372589772 232 Bienbille St
                                            Belton
                                                   MO
                                                           64012
                                                                  24418173 VA Buyer 1767962433699 2021-12-03 15:34:37
                                                            60466
   B03
         John Richardson 8372589773 120 Elm St
                                            Park Forest IL
                                                                  17371426 CA Buver
                                                                                8734285555852 2021-12-03 15:34:37
                                            Fountain FL
                                                           32438
   B04
         Lesly Shore
                    8372589774 22916 N Pine Lane Rd
                                                                  81488148 VA Buyer
                                                                                9424227531125 2021-12-03 15:34:37
   B05
         Williams Kimberly 8372589775 9720 Summit Bend Ln
                                                            77494
                                                                  13647231 CA Buver
                                                                                5669466679883 2021-12-03 15:34:37
                                                    TX
                                            Katv
   B06
                                            Frankston TX
                                                           75763
         Katie Piscatino 8372589776 734 Valley St
                                                                  44836512 FHA Buyer 1767962432600 2021-12-03 15:34:37
    NULL
                             NULL
                                            NULL
                                                    NULL
                                                            NULL
                                                                         NULL
         NULL
                     NULL
                                                                  NULL
                                                                                 NULL
                                                                                           NULL
```

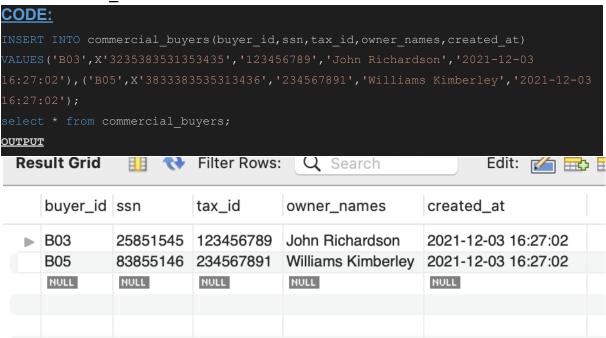
FHA BUYERS TABLE:

CODE: INSERT INTO fha_buyers(buyer_id,insurance_ID,insurance_fee,created_at) select * from fha_buyers; OUTPUT buyer_id insurance_ID insurance_fee created_at ▶ B01 6392315864 20 2021-12-03 15:41:29 B06 2937833341 30 2021-12-03 15:41:29 NULL NULL NULL NULL

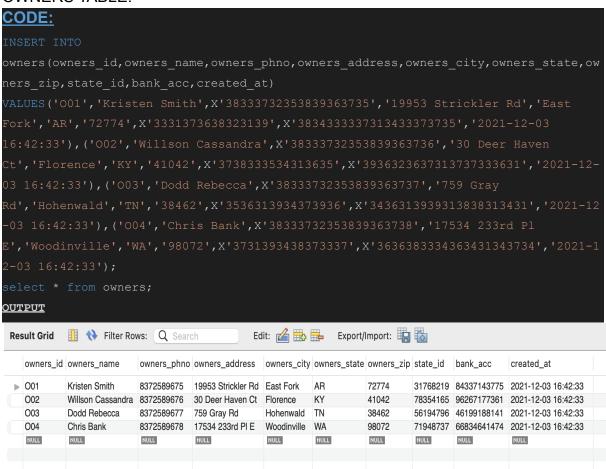
VA BUYERS TABLE :



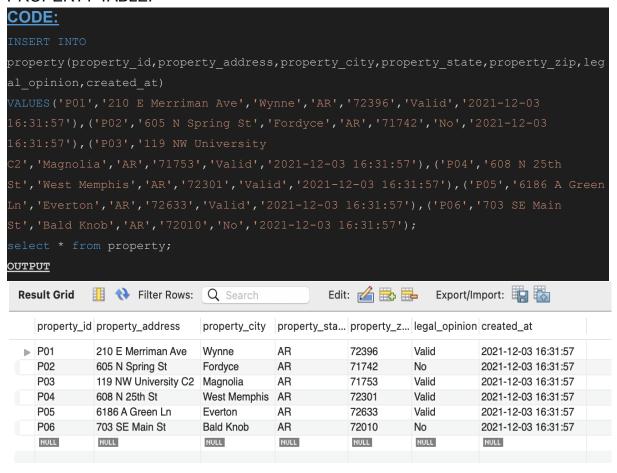
COMMERCIAL BUYERS TABLE:



OWNERS TABLE:



PROPERTY TABLE:



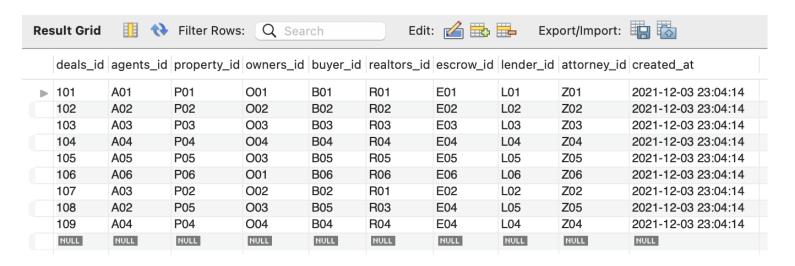
PROP OWNERS TABLE:

```
CODE:
INSERT INTO prop_owners(property_id,owners_id,created_at)
VALUES('P01','001','2021-12-03 16:44:30'),('P02','002','2021-12-03
16:44:30'),('P03','003','2021-12-03 16:44:30'),('P04','004','2021-12-03
16:44:30'),('P05','003','2021-12-03 16:44:30'),('P06','001','2021-12-03 16:44:30');
select * from prop_owners;
OUTPUT
```

Result Grid			
	property_id	owners_id	created_at
	P01	O01	2021-12-03 16:44:30
	P02	O02	2021-12-03 16:44:30
	P03	O03	2021-12-03 16:44:30
	P04	O04	2021-12-03 16:44:30
	P05	O03	2021-12-03 16:44:30
	P06	O01	2021-12-03 16:44:30
	NULL	NULL	NULL

DEALS TABLE:

```
CODE:
INSERT INTO
deals(deals_id,agents_id,property_id,owners_id,buyer_id,realtors_id,escrow_id,lende
r_id,attorney_id,created_at)
VALUES(101,'A01','P01','001','B01','R01','E01','L01','Z01','Z021-12-03
23:04:14'),(102,'A02','P02','002','B02','R02','E02','L02','Z02','2021-12-03
23:04:14'),(103,'A03','P03','003','B03','R03','E03','L03','Z03','2021-12-03
23:04:14'),(104,'A04','P04','004','B04','R04','E04','L04','Z04','2021-12-03
23:04:14'),(105,'A05','P05','003','B05','R05','E05','L05','Z05','2021-12-03
23:04:14'),(106,'A06','P06','001','B06','R06','E06','L06','Z06','2021-12-03
23:04:14'),(107,'A03','P02','002','B02','R01','E02','L02','Z02','2021-12-03
23:04:14'),(108,'A02','P05','003','B05','R03','E04','L05','Z05','2021-12-03
23:04:14'),(109,'A04','P04','004','B04','R04','E04','L05','Z05','2021-12-03
23:04:14'),(109,'A04','P04','004','B04','R04','E04','L04','Z04','2021-12-03
23:04:14'),(109,'A04','P04','004','B04','R04','E04','L04','Z04','Z021-12-03
23:04:14'),(109,'A04','P04','004','B04','R04','E04','L04','Z04','Z021-12-03
23:04:14'),(109,'A04','P04','004','B04','R04','E04','L04','Z04','Z021-12-03
23:04:14');
```

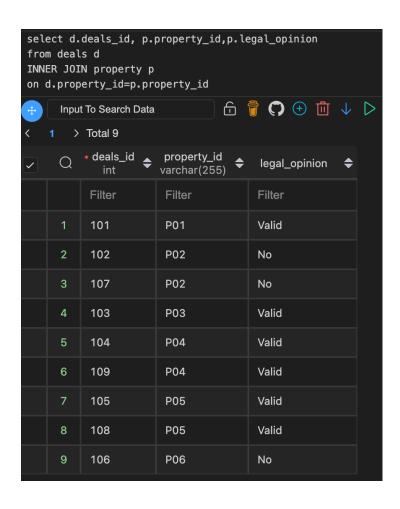


5. Chosing at least 2 tables from my project and:

- a. Shown Table records while insertions.
- b. Create inner joins between two tables:

So writing a query to perform inner join between deals and property to see which legal opinion of properties which are up on deals;

code; select d.deals_id, p.property_id,p.legal_opinion from deals d INNER JOIN property p on d.property_id=p.property_id;



c. Create full joins between two tables:

So I performed a full join between owners and prop_owners table to find out who names of owners with their respective properties.

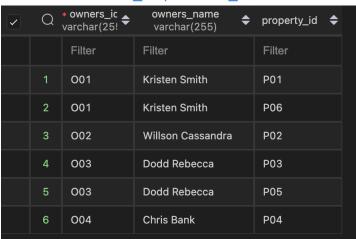
-Did a left outer join union right outer join instead of full join as we weren't able to run full join in mysql

code:

SELECT o.owners_id, o.owners_name,p.property_id FROM owners o FULL JOIN prop_owners p on o.owners id=p.owners id;

- The alternate query is:

SELECT o.owners_id, o.owners_name,p.property_id
FROM owners o
left OUTER JOIN prop_owners p
on o.owners_id=p.owners_id
UNION
SELECT o.owners_id, o.owners_name,p.property_id
FROM owners o
right OUTER JOIN prop_owners p
on o.owners_id=p.owners_id;

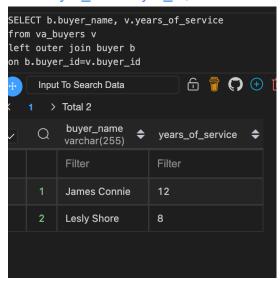


d. Create left outer joins between two tables:

So I performed left outer join on two tables buyers and va_buyers to get buyer's no of years in service

Code:

SELECT b.buyer_name, v.years_of_service from va_buyers v left outer join buyer b on b.buyer_id=v.buyer_id;

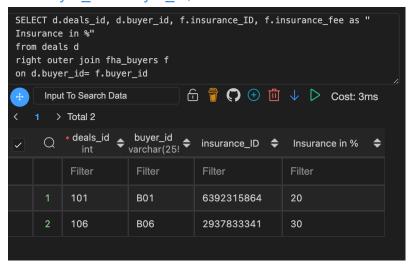


e. Create right outer joins between two tables:

So I performed right outer join between deals and fha_buyers to get any deals with first time buyers and their insurance details

Code:

SELECT d.deals_id, d.buyer_id, f.insurance_ID, f.insurance_fee as " Insurance in %" from deals d right outer join fha_buyers f on d.buyer id= f.buyer id;



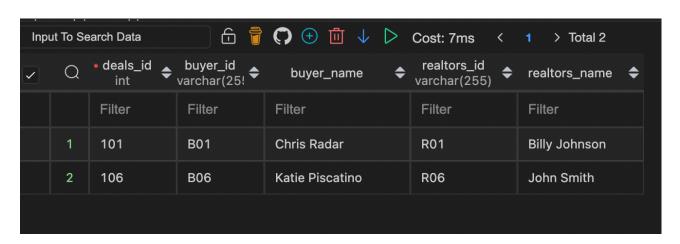
f. Create intersect between two tables:

As we weren't able to write and run a query with intersect, we know that intersect takes out common values from the provided tables, so we can use "IN" for this purpose

 Writing a query to get realtor, buyer details for buyers who are also first time buyers

Code:

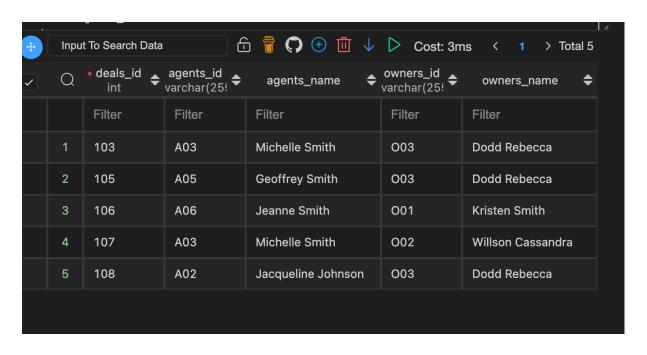
```
SELECT d.deals_id,d.buyer_id,b.buyer_name, d.realtors_id, r.realtors_name from deals d inner join realtors r on d.realtors_id=r.realtors_id inner join buyer b on d.buyer_id=b.buyer_id where d.buyer_id IN(
SELECT d.buyer_id from deals d INNER join fha_buyers b on d.buyer_id=b.buyer_id)
ORDER BY d.deals_id;
```



g. Create union between two tables

Created a result table of UNION using customer and transaction tables . So it gives all the rows which are used in both the select statements not only the identical ones Code:

```
select d.deals_id,a.agents_id,a.agents_name,o.owners_id,o.owners_name from deals d inner join agents a on d.agents_id=a.agents_id join owners o on d.owners_id=o.owners_id where a.agents_state='TN' union select d.deals_id,a.agents_id,a.agents_name,o.owners_id,o.owners_name from deals d inner join owners o on d.owners_id=o.owners_id join agents a on d.agents_id=a.agents_id where o.owners_state='TN' ORDER BY deals id,agents id,owners id;
```



h. Create except between two tables

So I used NOT IN to perform except operation and my query follows:

 Writing a query to get owner, buyer details for buyers who are not first time buyers

SELECT d.deals_id,d.owners_id ,o.owners_name,b.buyer_name from deals d inner join owners o on d.owners_id=o.owners_id inner join buyer b on d.buyer_id=b.buyer_id where d.buyer_id NOT IN(SELECT d.buyer_id from deals d INNER join fha_buyers b on d.buyer_id=b.buyer_id)

