

# MYSQL PROJECT



**Insurance AgencyData**

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# Proejct Summary: MySQL Database for Insurance Agency

This MySQL project establishes a comprehensive database for an insurance agency, focusing on key aspects such as brokerage information, new submissions, new businesses, commissions, and binding ratios. The database empowers the agency to efficiently track and analyze critical operational metrics, providing insights into broker performance and facilitating strategic decision-making. Through tables like Submission, New Business, and Report, the database offers a centralized platform for managing data, calculating commissions, and assessing binding ratios, enhancing overall efficiency and profitability for the insurance agency.

# Tables

## 1. Brokerage Table:

- Stores essential details for each brokerage.
- Includes the name and associated data.

## 2. Submission Table:

- Logs new submissions and client interactions.

## 3. New Business Table:

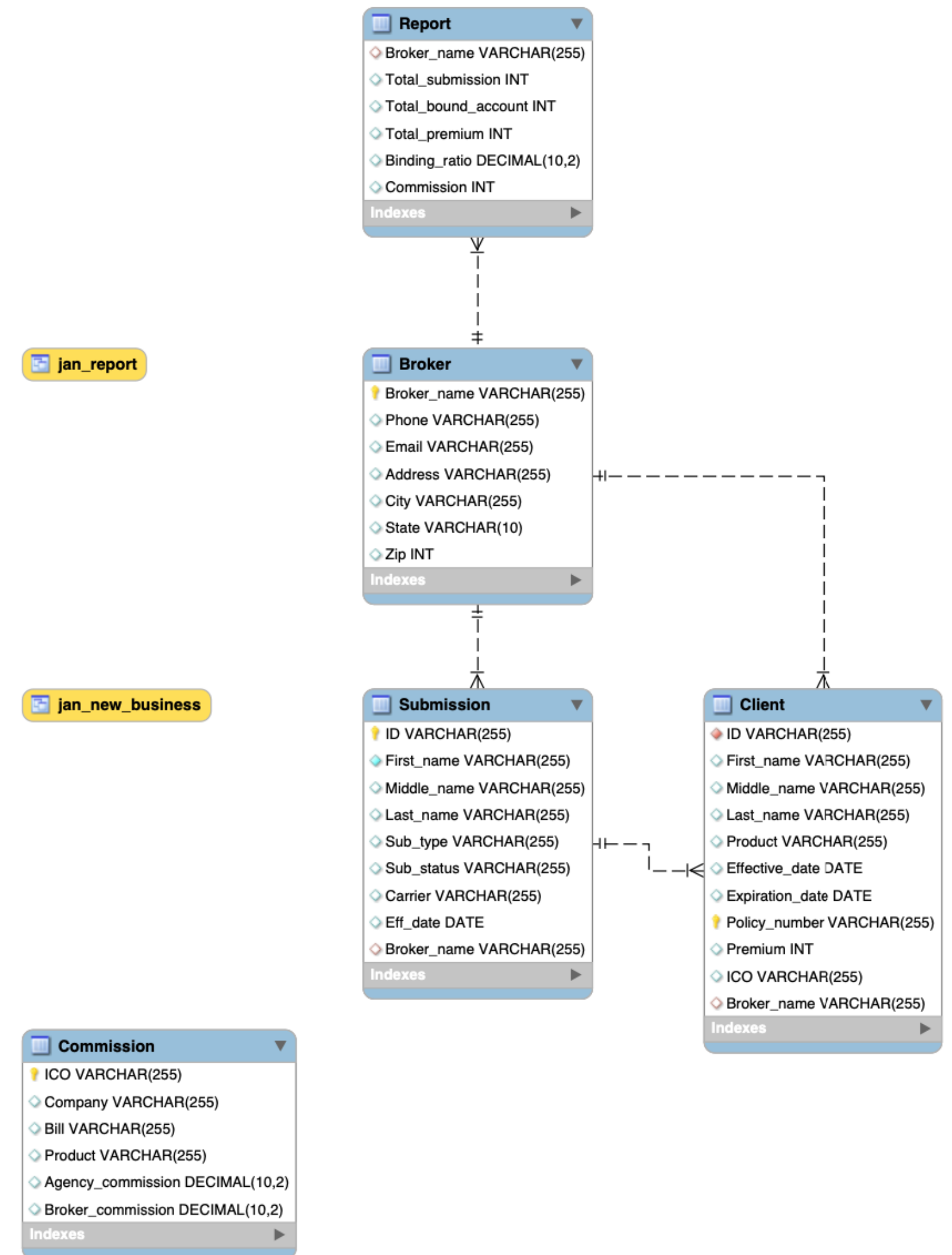
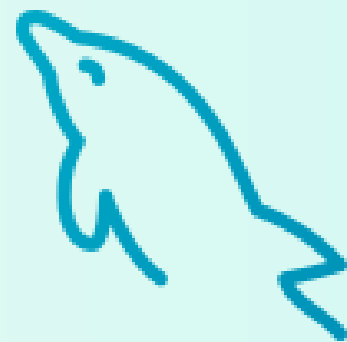
- Focuses on binding new policies.
- Holds pertinent details on new business transactions.

## 4. Report Table:

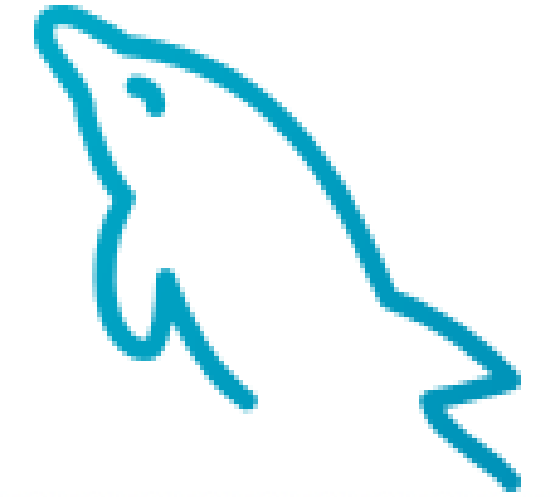
- Centralizes critical metrics for analysis.
- Displays total submissions, bound new businesses, and binding ratios for brokerages.

## 5. Commission Table:

- Specifies commission percentages for insurance company products.



# Table-Broker



```
mysql> select * from Broker;
```

Broker_name	Phone	Email	Address	City	State	Zip
Alan Cohen	516-409-3384	mail@gmail.com	28 Liberty St 5th Flr	New York	NY	10005
Castle Rock Capacity Insurance Agency	212-360-2334	Insurance@gmail.com	90 Broad St # 1503	New York	NY	10004
General Liability Insurance NYC	646-814-2290	general@gmail.com	890 1st Ave	New York	NY	10022
Insure NYC Brokerage Inc	212-799-7500	InsureNYC@gmail.com	33 West 60th Street 2nd fl	Queens	NY	10023
Jeff Waddle Ins Agency Inc	212-533-2230	info@hotmail.com	31 W 8th St	New York	NY	10011
Kate Rhee	212-72502510	info@gmail.com	315 Fifth Avenue Suite 703B	New York	NY	10016
Kingsbrook Brokerage Services	212-227-5444	kingsbrook@gmail.com	32 Broadway	New York	NY	10004
M&T Insurance Agency Inc	800-716-8314	MT@gmail.com	350 Park Ave	New York	NY	10022
New York Insurance Company	718-550-8707	nyins@gmail.com	9114 59th Ave	Elmhurst	NY	11373
NY Insurance Brokerage Inc	718-476-2025	NYIns@gmail.com	71-16 35th Ave	Jackson Heights	NY	11372
RSN Insurance Agency	212-904-1044	RSNIns@gmail.com	481 8th Ave	New York	NY	10001
Schulman Insurance Brokerage, LLC	516-632-5225	info@schulman.mail	825 E Gate Blvd, Ste 305	Garden City	NY	11530



# Table – Submission



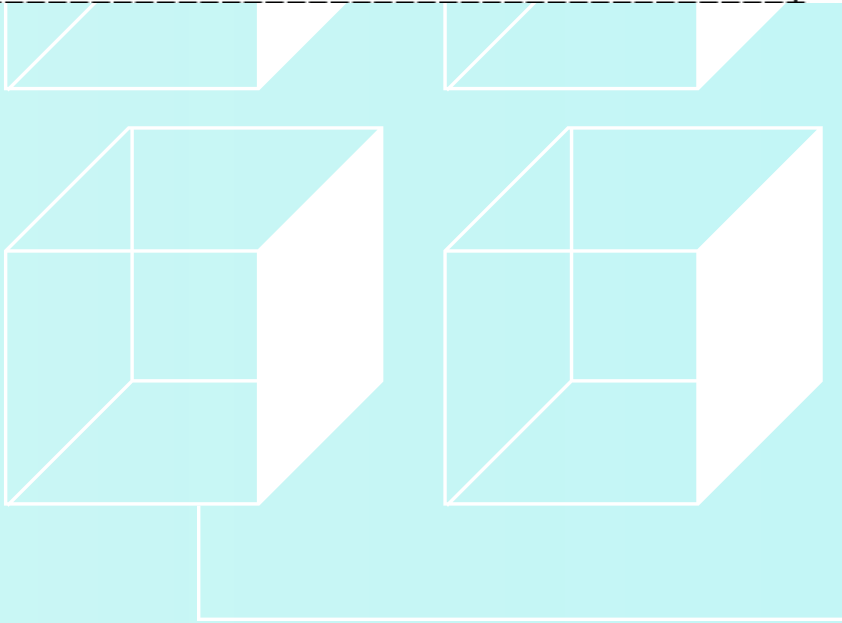
```
[mysql> select * from AgencyData.Submission;
```

ID	First_name	Middle_name	Last_name	Sub_type	Sub_status	Carrier	Eff_date	Broker_name
AA001	Abigail	C	Anderson	Home	Released	USLI	2024-01-11	Jeff Waddle Ins Agency Inc
AS009	Ava		Smith	Home	Released	USLI	2024-01-10	General Liability Insurance NYC
AW000	Amelia	E	Wilson	Home	Released	Utica First	2024-01-10	Jeff Waddle Ins Agency Inc
CM002	Clara	C	Miller	Home	Released	Geico	2024-01-23	New York Insurance Company
CM017	Chloe		Martin	Dwelling	Released	USLI	2024-03-01	New York Insurance Company
CR011	Camila		Rodriguez	Home	Released	Geico	2024-01-19	Kate Rhee
CT016	Charlotte		Taylor	Flood	Released	Wright	2024-01-19	Schulman Insurance Brokerage, LLC
DM006	Delilah		Moore	Home	Released	Geico	2024-02-02	Kingsbrook Brokerage Services
ED008	Emily		Davis	Home	Released	Utica First	2024-02-22	NY Insurance Brokerage Inc
EG010	Elizabeth	C	Garcia	Home	Released	USLI	2024-01-10	Kate Rhee
EJ004	Eleanor	K	Jackson	Home	Released	Geico	2024-01-20	New York Insurance Company
ET012	Ella		Thomas	Home	Declined		2024-02-20	Alan Cohen
EW018	Evelyn		White	Dwelling	Released	USLI	2024-02-20	Kate Rhee
IM005	Isabella	X	Martinez	Home	Released	Allstate	2024-01-24	M&T Insurance Agency Inc
JK020	Jenny		Kim	Home	Released	Utica First	2024-02-20	RSN Insurance Agency
JL021	Jay		Lee	Home	Released	Geico	2024-02-20	Insure NYC Brokerage Inc
JM019	Jane		Moore	Dwelling	Released	USLI	2024-02-20	Schulman Insurance Brokerage, LLC
JW007	Josephine		Williams	Home	Released	USLI	2024-01-19	Castle Rock Capacity Insurance Agency
LJ014	Lillian		Johnson	Flood	Released	Wright	2024-02-10	Alan Cohen
LJ015	Luna		Jones	Flood	Declined	Wright	2024-01-10	Alan Cohen
MT013	Mia		Thompson	Home	Declined		2024-01-23	General Liability Insurance NYC
OB003	Olivia		Brown	Home	Released	Allstate	2024-01-23	Jeff Waddle Ins Agency Inc

[mysql> select \* from Client;

ID	First_name	Middle_name	Last_name	Product	Effective_date	Expiration_date	Policy_number	Premium	ICO	Broker_name
CM017	Chloe		Martin	Dwelling	2024-01-17	2025-01-17	DP 345555	2390	USLIDP	New York Insurance Company
CR011	Camila		Rodriguez	Home	2024-01-20	2025-01-20	HO 234097	1290	GEICO	Kate Rhee
CM002	Clara	C	Miller	Home	2024-02-10	2025-02-10	HO 234167	2300	GEICO	New York Insurance Company
EG010	Elizabeth	C	Garcia	Home	2024-01-20	2025-01-20	HO 234267	1420	USLIHO	Kate Rhee
LJ015	Luna		Jones	Flood	2024-02-10	2025-02-10	HO 234517	4200	WRIGHT	Alan Cohen
EJ004	Eleanor	K	Jackson	Home	2024-03-10	2025-03-10	HO 234527	1600	GEICO	New York Insurance Company
LJ014	Lillian		Johnson	Flood	2024-01-17	2025-01-17	HO 234537	2100	WRIGHT	Alan Cohen
JM019	Jane		Moore	Dwelling	2024-01-13	2025-01-13	HO 234560	3108	USLIDP	Schulman Insurance Brokerage, LLC
JL021	Jay		Lee	Home	2024-01-19	2025-01-19	HO 2345600	1900	GEICO	Insure NYC Brokerage Inc
AA001	Abigail	C	Anderson	Home	2024-01-10	2025-01-10	HO 234567	1450	USLIHO	Jeff Waddle Ins Agency Inc
AS009	Ava		Smith	Home	2024-01-12	2025-01-12	HO 234597	1100	USLIHO	General Liability Insurance NYC
JK020	Jenny		Kim	Home	2024-01-12	2025-01-12	HO 234599	2208	UTICA	RSN Insurance Agency
DM006	Delilah		Moore	Home	2024-02-11	2025-02-11	HO 237567	1500	ALLSTATE	Kingsbrook Brokerage Services
JW007	Josephine		Williams	Home	2024-01-11	2025-01-11	HO 284567	1200	ALLSTATE	Castle Rock Capacity Insurance Agency

Table - Client





# Table - Commission

```
[mysql> select * from Commission;
```

ICO	Company	Bill	Product	Agency_commission	Broker_commission
ALLSTATE	Allstate	Direct	Home	0.22	0.15
GEICO	Geico	Direct	Home	0.25	0.15
USLIDP	USLI	Direct	Dwelling	0.18	0.15
USLIHO	USLI	Direct	Home	0.20	0.15
UTICA	Utica First	Direct	Home	0.15	0.10
WRIGHT	Wright	Direct	Flood	0.15	0.10

Commission for carrier product

# Table - Report



```
[mysql> select * from Report  
-> ;
```

Broker_name	Total_submission	Total_bound_account	Total_premium	Binding_ratio	Commission
Alan Cohen	3	2	6300	0.67	630
Castle Rock Capacity Insurance Agency	1	1	1200	1.00	180
General Liability Insurance NYC	2	1	1100	0.50	165
Insure NYC Brokerage Inc	1	1	1900	1.00	285
Jeff Waddle Ins Agency Inc	3	1	1450	0.33	218
Kate Rhee	3	2	2710	0.67	407
Kingsbrook Brokerage Services	1	1	1500	1.00	225
M&T Insurance Agency Inc	1	0	0	0.00	0
New York Insurance Company	3	3	6290	1.00	944
NY Insurance Brokerage Inc	1	0	0	0.00	0
RSN Insurance Agency	1	1	2208	1.00	221
Schulman Insurance Brokerage, LLC	2	1	3108	0.50	466



# Count total submission for each broker

Broker_name	Total_submission
Alan Cohen	3
Castle Rock Capacity Insurance Agency	1
General Liability Insurance NYC	2
Insure NYC Brokerage Inc	1
Jeff Waddle Ins Agency Inc	3
Kate Rhee	3
Kingsbrook Brokerage Services	1
M&T Insurance Agency Inc	1
New York Insurance Company	3
NY Insurance Brokerage Inc	1
RSN Insurance Agency	1
Schulman Insurance Brokerage, LLC	2

```
UPDATE Report
SET Total_submission = (
    SELECT COUNT(ID)
    FROM AgencyData.Submission
    WHERE Broker_name = Report.Broker_name);

SELECT Broker_name, Total_submission
FROM Report;
```

# Count total bind account for each broker

```
UPDATE Report
SET Total_bound_account = (
    SELECT COUNT(ID)
    FROM AgencyData.Client
    WHERE Broker_name = Report.Broker_name);
```

```
SELECT Broker_name,Total_bound_account
FROM Report;
```

Broker_name	Total_bound_account
Alan Cohen	2
Castle Rock Capacity Insurance Agency	1
General Liability Insurance NYC	1
Insure NYC Brokerage Inc	1
Jeff Waddle Ins Agency Inc	1
Kate Rhee	2
Kingsbrook Brokerage Services	1
M&T Insurance Agency Inc	0
New York Insurance Company	3
NY Insurance Brokerage Inc	0
RSN Insurance Agency	1
Schulman Insurance Brokerage, LLC	1

# SUM earned commission

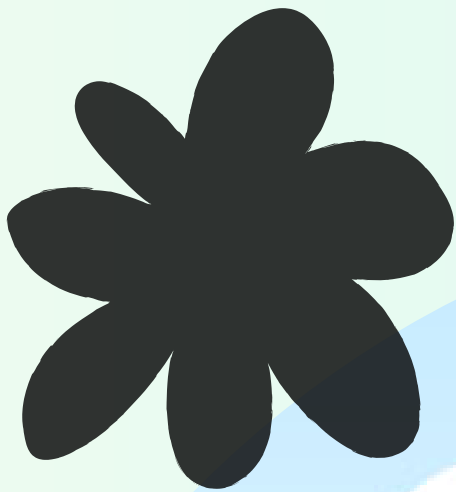
```
UPDATE Report
SET Commission = (
  SELECT SUM(Client.Premium * Commission.Broker_commission)
  FROM Client
  JOIN Commission
  ON Client.ICO = Commission.ICO
  AND Client.Product = Commission.Product
  WHERE Client.Broker_name = Report.Broker_name);
```

```
UPDATE Report SET Commission = 0
WHERE Commission IS NULL;
```

```
SELECT Broker_name, Commission FROM Report;
```

Broker_name	Commission
Alan Cohen	630
Castle Rock Capacity Insurance Agency	180
General Liability Insurance NYC	165
Insure NYC Brokerage Inc	285
Jeff Waddle Ins Agency Inc	218
Kate Rhee	407
Kingsbrook Brokerage Services	225
M&T Insurance Agency Inc	0
New York Insurance Company	944
NY Insurance Brokerage Inc	0
RSN Insurance Agency	221
Schulman Insurance Brokerage, LLC	466



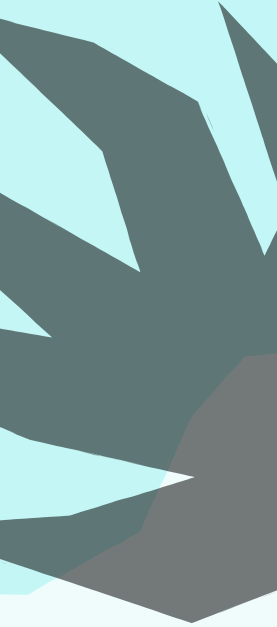


# Calculate Binding Ratio

```
UPDATE Report
SET Bing_ratio =
CASE
  WHEN Total_submission <> 0
  AND Total_submission IS NOT NULL
  THEN Total_bound_account / Total_submission
  ELSE NULL
END;

SELECT Broker_name, Binding_ratio FROM Report;
```

Broker_name	Binding_ratio
Alan Cohen	0.67
Castle Rock Capacity Insurance Agency	1.00
General Liability Insurance NYC	0.50
Insure NYC Brokerage Inc	1.00
Jeff Waddle Ins Agency Inc	0.33
Kate Rhee	0.67
Kingsbrook Brokerage Services	1.00
M&T Insurance Agency Inc	0.00
New York Insurance Company	1.00
NY Insurance Brokerage Inc	0.00
RSN Insurance Agency	1.00
Schulman Insurance Brokerage, LLC	0.50



# Group by

```
SELECT Eff_date AS Submission_date,  
COUNT(Eff_date)  
FROM Submission  
GROUP BY Eff_date;
```

	Submission_date	Count(Eff_dat...
	2024-01-11	1
	2024-01-10	4
	2024-01-23	3
	2024-03-01	1
	2024-01-19	3
	2024-02-02	1
	2024-02-22	1
	2024-01-20	1
	2024-02-20	5
	2024-01-24	1
	2024-02-10	1

# Order by

```
SELECT Broker_name, Total_submission
FROM Report
ORDER BY Total_submission DESC
LIMIT 3;
```

Broker_name	Total_submissi...
Alan Cohen	3
Kate Rhee	3
Jeff Waddle Ins Agency Inc	3



# Create procedure

```
CREATE PROCEDURE GetMonthlyReport (StartDate DATE, EndDate DATE)
SELECT * FROM Client
WHERE Effective_date BETWEEN StartDate
AND Enddate;
CALL GetMonthlyReport ('2024-02-01', '2024-02-29');
```

[mysql> CALL GetMonthlyReport('2024-02-02', '2024-02-29');

ID	First_name	Middle_name	Last_name	Product	Effective_date	Expiration_date	Policy_number	Premium	ICO	Broker_name
CM002	Clara	C	Miller	Home	2024-02-10	2025-02-10	HO 234167	2300	GEICO	New York Insurance Company
LJ015	Luna		Jones	Flood	2024-02-10	2025-02-10	HO 234517	4200	WRIGHT	Alan Cohen
DM006	Delilah		Moore	Home	2024-02-11	2025-02-11	HO 237567	1500	ALLSTATE	Kingsbrook Brokerage Services

# Function

```
DELIMITER //  
CREATE FUNCTION GetCommission(Amount INT, Co VARCHAR(255), Product VARCHAR(255))  
RETURNS INT DETERMINISTIC  
BEGIN  
    IF (Co = "USLI" AND (Product = "Home" OR Product = "Dwelling")) THEN  
        SET Amount = Amount * 0.15;  
    ELSEIF (Co = "Utica First" AND Product = "Home") THEN  
        SET Amount = Amount * 0.10;  
    ELSEIF (Co = "Geico" AND Product = "Home") THEN  
        SET Amount = Amount * 0.15;  
    ELSEIF (Co = "Allstate" AND Product = "Home") THEN  
        SET Amount = Amount * 0.15;  
    END IF;  
    RETURN (Amount);  
END//  
DELIMITER ;
```

```
SELECT GetCommission(2000, "USLI", "Home");
```

GetCommission(2000, "USLI", "Home")
300

# Trigger

```
DELIMITER //  
CREATE TRIGGER CheckDeclineSubmission  
BEFORE INSERT  
ON Submission FOR EACH ROW  
BEGIN  
    IF NEW.Sub_status = "Declined" THEN  
        SET NEW.Carrier = "No Market";  
    END IF;  
END;  
DELIMITER ;
```



# VIEW - JAN-Report -2024

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```
CREATE VIEW Jan_Report AS

SELECT Broker.Broker_name,

COUNT(DISTINCT CASE WHEN Submission.Eff_date >= '2024-01-01' AND Submission.Eff_date < '2024-02-01' THEN Submission.ID END) AS Submission,

COUNT(DISTINCT CASE WHEN Client.Effective_date >= '2024-01-01' AND Client.Effective_date < '2024-02-01' THEN Client.ID END) AS Bind,

ROUND( COALESCE( (COUNT(DISTINCT CASE WHEN Client.Effective_date >= '2024-01-01' AND Client.Effective_date < '2024-02-01'

THEN Client.ID END) / NULLIF(COUNT(DISTINCT CASE WHEN Submission.Eff_date >= '2024-01-01' AND Submission.Eff_date < '2024-02-01'

THEN Submission.ID END), 0)) * 100, 0 ), 2 ) AS Binding_Ratio,

COALESCE(SUM(Client.Premium * Commission.Broker_commission), 0) AS Commission

FROM Broker

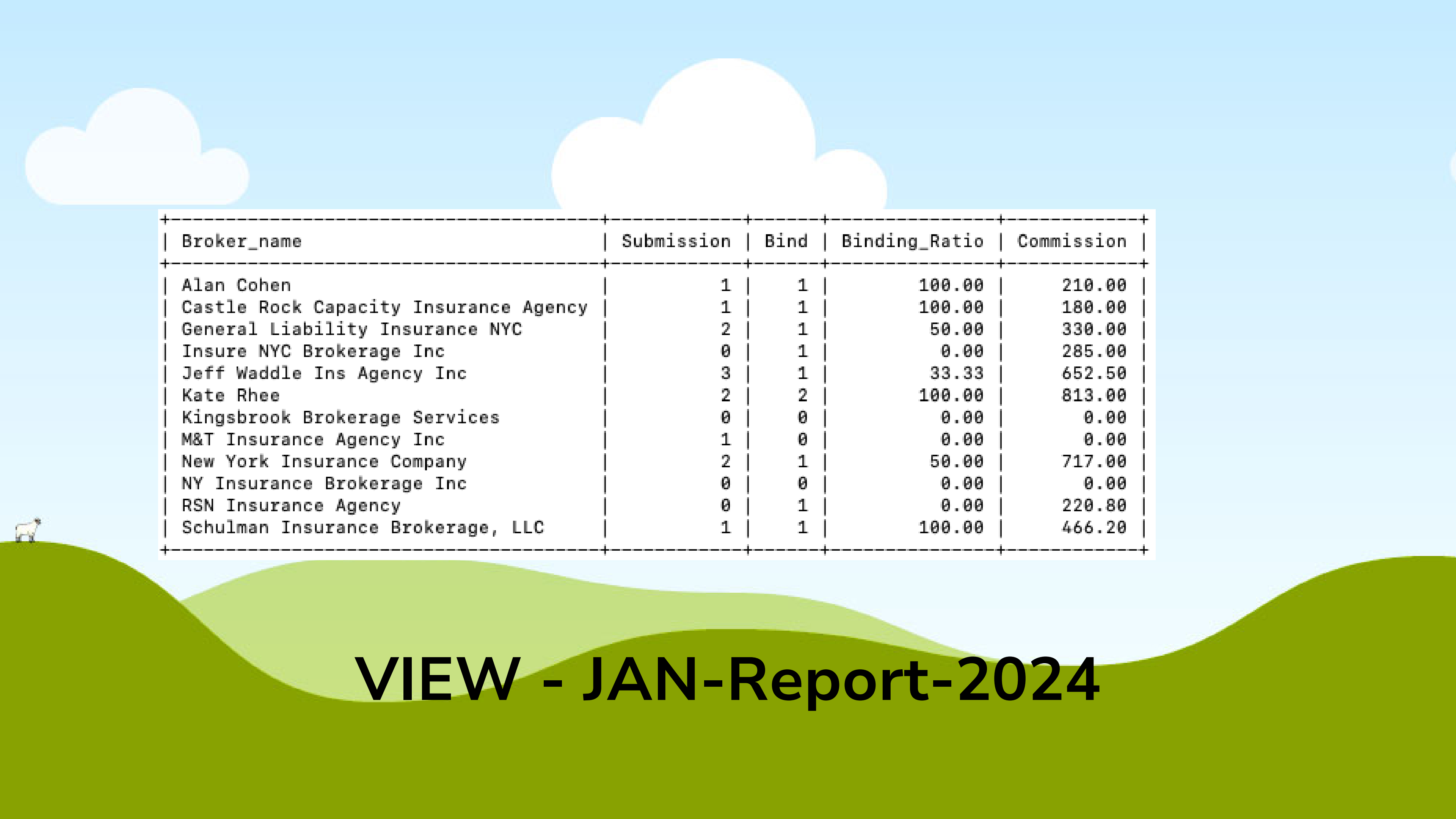
LEFT JOIN Submission ON Broker.Broker_name = Submission.Broker_name AND Submission.Eff_date >= '2024-01-01'

AND Submission.Eff_date < '2024-02-01'

LEFT JOIN Client ON Broker.Broker_name = Client.Broker_name AND Client.Effective_date >= '2024-01-01' AND Client.Effective_date < '2024-02-01'

LEFT JOIN Commission ON Client.ICO = Commission.ICO AND Client.Product = Commission.Product

GROUP BY Broker.Broker_name;
```



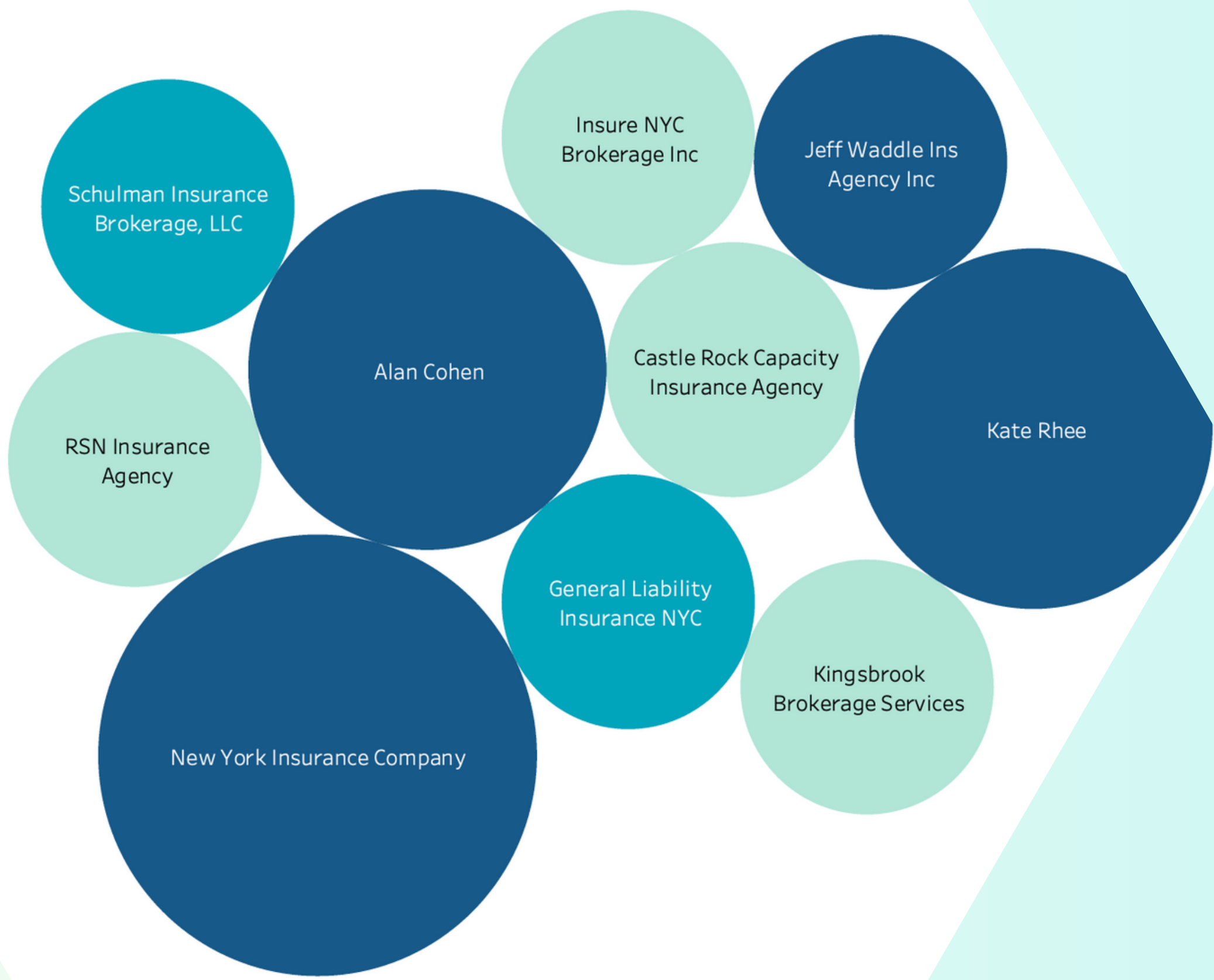
Broker_name	Submission	Bind	Binding_Ratio	Commission
Alan Cohen	1	1	100.00	210.00
Castle Rock Capacity Insurance Agency	1	1	100.00	180.00
General Liability Insurance NYC	2	1	50.00	330.00
Insure NYC Brokerage Inc	0	1	0.00	285.00
Jeff Waddle Ins Agency Inc	3	1	33.33	652.50
Kate Rhee	2	2	100.00	813.00
Kingsbrook Brokerage Services	0	0	0.00	0.00
M&T Insurance Agency Inc	1	0	0.00	0.00
New York Insurance Company	2	1	50.00	717.00
NY Insurance Brokerage Inc	0	0	0.00	0.00
RSN Insurance Agency	0	1	0.00	220.80
Schulman Insurance Brokerage, LLC	1	1	100.00	466.20

**VIEW - JAN-Report-2024**

- Total Submissions
- Total Bound Accounts



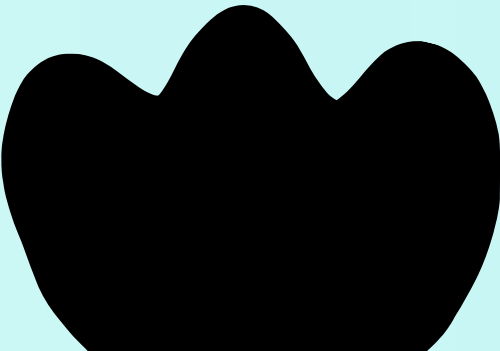




# Chart Page

**Chart shows the following info for each brokerage:**

- Total Submissions
- Total Bound Accounts



# Thank You!

**2024-01-30**

Sisi Wang

