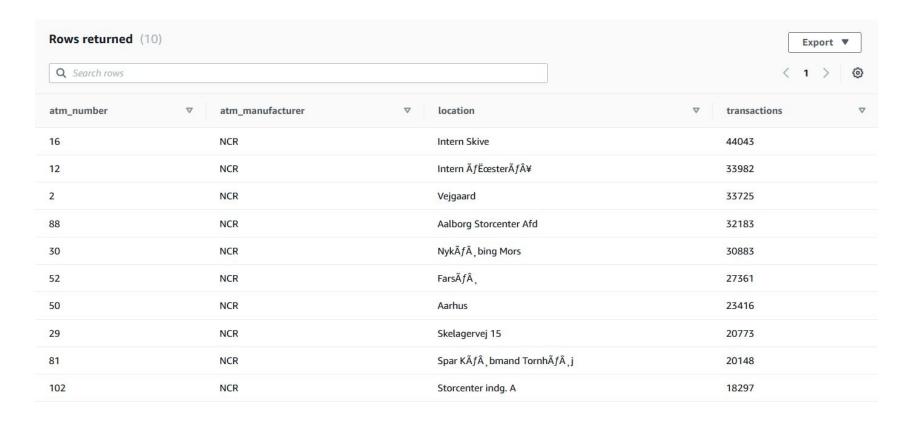
# RedshiftQueries

1. Top 10 ATMs where most transactions are in the 'inactive' state

SELECT atm number, atm manufacturer, location, COUNT(trans id) AS transactions FROM atm data.fact atm trans T INNER JOIN atm\_data.dim\_atm A ON T.atm\_id = A.atm\_id INNER JOIN atm\_data.dim\_location L ON A.atm\_location\_id = L.location\_id WHERE atm status = 'Inactive' GROUP BY atm number, atm manufacturer, location ORDER BY transactions DESC LIMIT 10;



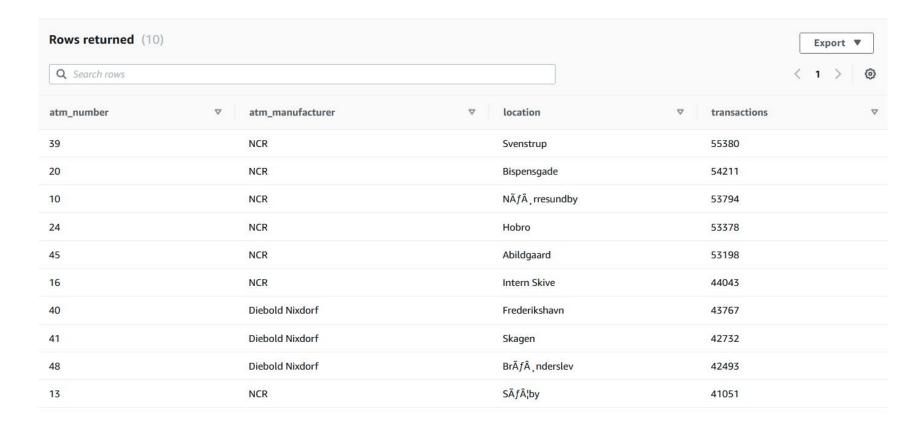
# 2. Number of ATM failures corresponding to the different weather conditions recorded at the time of the transactions

```
WITH weather atm failure AS
       SELECT
       weather main,
       COUNT(trans id) AS transactions,
       SUM(CASE WHEN atm status='Inactive' THEN 1 ELSE 0 END) AS inactive count
       FROM
       Atm_data.fact_atm_trans
       WHERE
       weather main != "
       GROUP BY
       weather main
SELECT
       ROUND(CAST(inactive count AS numeric(10,2)) / transactions * 100, 2) AS inactive count percent
FROM
       weather atm failure
ORDER BY
       inactive count percent DESC;
```

weather_main	<b>▽</b> transactions	▼ inactive_count	▼ inactive_count_percent
Snow	23405	4813	20.56
Fog	18174	3729	20.52
Clouds	1181901	194027	16.42
Rain	545135	86017	15.78
Clear	543949	85531	15.72
Mist	82801	12864	15.54
Thunderstorm	2549	361	14.16
Drizzle	62530	8670	13.87
TORNADO	38	1	2.63
Haze	3	0	0.00

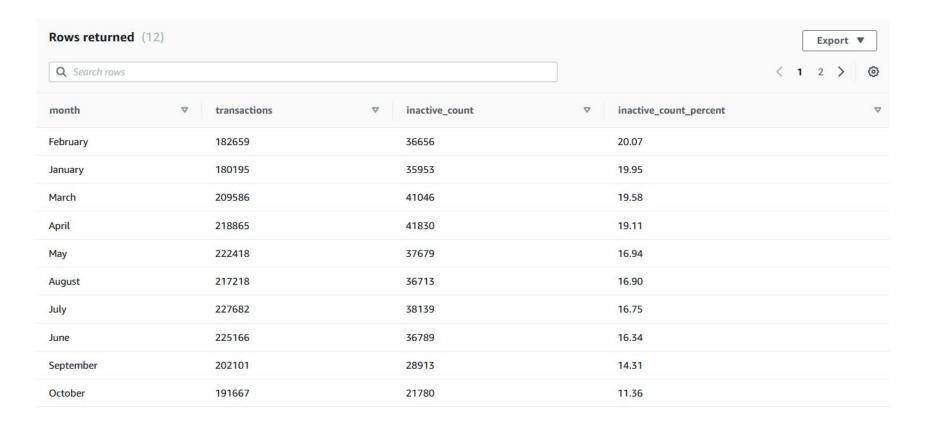
# 3. Top 10 ATMs with the most number of transactions throughout the year

```
SELECT
      atm number,
      atm manufacturer,
      location,
      COUNT(trans id) AS transactions
FROM
      atm data.fact atm trans T
INNER JOIN
      atm data.dim atm A ON T.atm id = A.atm id
INNER JOIN
      atm data.dim location L ON A.atm location id = L.location id
GROUP BY
      atm number,
      atm_manufacturer,
      location
ORDER BY
      transactions DESC
LIMIT 10;
```



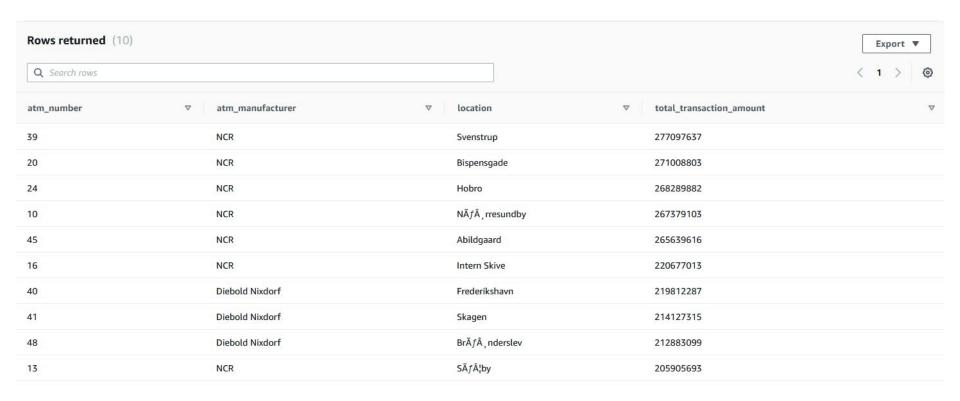
#### 4. Number of overall ATM transactions going inactive per month for each month

```
WITH monthwise_atm_failure AS (
      SELECT
      month,
      COUNT(F.trans_id) AS transactions,
      SUM(CASE WHEN F.atm_status='Inactive' THEN 1 ELSE 0 END) AS inactive_count
      FROM
      atm_data.fact_atm_trans F
      JOIN
      atm data.dim date D ON F.date id = D.date id
      GROUP BY
      D.month)
SELECT
      ROUND(CAST(inactive count AS numeric(10,2)) / transactions * 100, 2) AS inactive count percent
FROM
      monthwise atm failure
ORDER BY
      inactive count percent DESC;
```



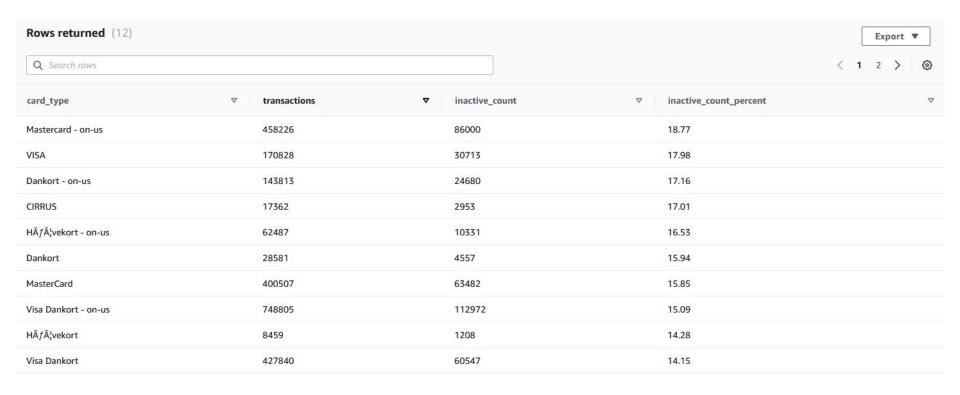
#### 5. Top 10 ATMs with the highest total withdrawn amount throughout the year

```
SELECT
      atm_number,
      atm manufacturer,
      location,
      SUM(transaction_amount) AS total_transaction_amount
FROM
      atm_data.fact_atm_trans T
INNER JOIN
      atm data.dim atm A ON T.atm id = A.atm id
INNER JOIN
      atm data.dim location L ON A.atm location id = L.location id
GROUP BY
      atm number,
      atm_manufacturer,
      location
ORDER BY
      total_transaction_amount DESC
LIMIT
      10;
```



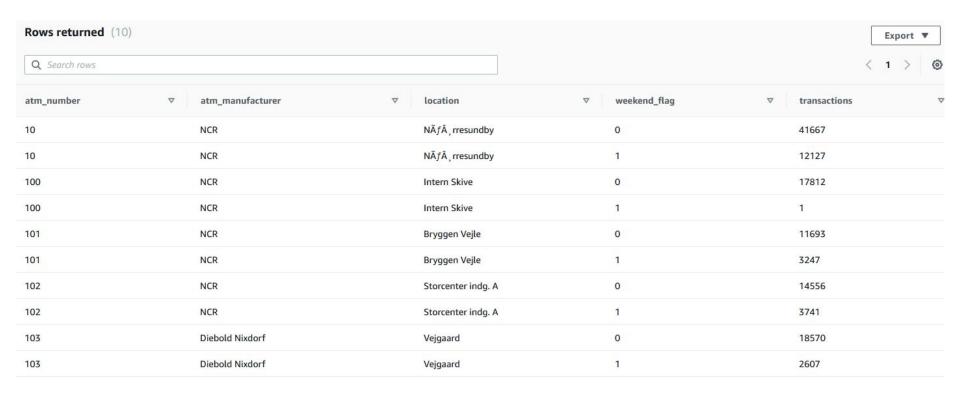
# 6. Number of failed ATM transactions across various card types

```
SELECT
      atm_number,
      atm_manufacturer,
      location,
      SUM(transaction_amount) AS total_transaction_amount
FROM
      atm_data.fact_atm_trans T
INNER JOIN
      atm data.dim atm A ON T.atm id = A.atm id
INNER JOIN
      atm data.dim location L ON A.atm location id = L.location id
GROUP BY
      atm number,
      atm_manufacturer,
      location
ORDER BY
      total_transaction_amount DESC
LIMIT
       10;
```



7. Number of transactions happening on an ATM on weekdays and on weekends throughout the year. Order this by the ATM\_number, ATM\_manufacturer, location, weekend\_flag and then total\_transaction\_count

```
SELECT
         atm number,
         atm manufacturer,
         location.
         CASE WHEN weekday IN ('Sunday', 'Saturday') THEN 1 ELSE 0 END AS weekend flag,
         COUNT(trans id) AS transactions
FROM
         atm data.fact atm trans T
INNER JOIN
         atm_data.dim_atm A ON T.atm_id = A.atm_id
INNER JOIN
         atm data.dim location L ON A.atm location id = L.location id
INNER JOIN
         atm_data.dim_date D ON T.date_id = D.date_id
GROUP BY
         atm number,
         atm manufacturer,
         location,
         weekend flag
ORDER BY
         atm number,
         atm manufacturer,
         location.
         weekend flag,
         transactions
LIMIT
         10;
```



# 8. Most active day in each ATMs from location "Vejgaard"

```
WITH atm weekday details AS (
      SELECT atm number, atm manufacturer, location, weekday, COUNT(trans id) AS transactions
      FROM atm data.fact atm trans T
      INNER JOIN atm data.dim atm A ON T.atm id = A.atm id
      INNER JOIN atm data.dim location L ON A.atm location id = L.location id
      INNER JOIN atm data.dim date D ON T.date id = D.date id
      WHERE location = 'Veigaard'
      GROUP BY atm_number, atm_manufacturer, location, weekday
max weekday AS (
      SELECT weekday
      FROM atm weekday details
      WHERE transactions = (SELECT MAX(transactions) FROM atm_weekday_details)
     LIMIT 1
SELECT *
FROM atm weekday details
WHERE weekday = (SELECT weekday FROM max weekday)
ORDER BY transactions:
```

