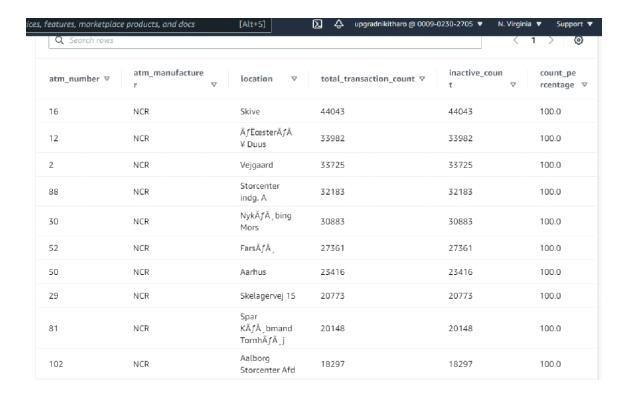
Solving analytical queries on RedShift Cluster

Here, you have to write the query used for solving the question and the screenshots of the table which is outputted after the query is run on the AWS RedShift Query editor UI.

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

```
<Query>
select C.atm_number,
C.atm_manufacturer,
D.location,
total_transaction_count,
inactive count,
inactive count/total transaction count*100.0 as count percentage
from
select atm id,
count(atm_id) as total_transaction_count
from etl_proj_schema.fact_atm_trans
group by atm id
order by total_transaction_count desc
) A,
select atm_id, count(atm_id) as inactive_count
from etl proj schema.fact atm trans
where atm_status = 'Inactive'
group by atm_id
order by inactive count desc limit 10
)B,
etl proj schema.dim atm C,
etl proj schema.dim location D
where A.atm_id = B.atm_id
and B.atm id = C.atm id
and C.atm location id = D.location id
order by inactive count desc;
```



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

<Query>

<Query>

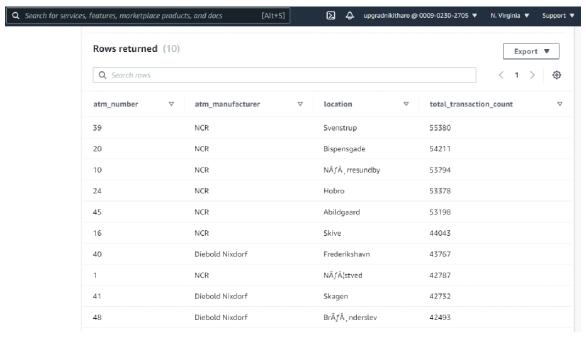
<Screenshot of the resultant table>

•___3. Top 10 ATMs with the most number of transactions throughout the year

```
select B.atm_number,
B.atm_manufacturer,
C.location,
total_transaction_count
from
(
select atm_id,
count(atm_id) as total_transaction_count
from
etl_proj_schema.fact_atm_trans
```

group by atm_id
order by total_transaction_count desc limit 10
) A,
etl_proj_schema.dim_atm B,
etl_proj_schema.dim_location C
where A.atm_id = B.atm_id
and B.atm_location_id = C.location_id
order by total_transaction_count desc;

<Screenshot of the resultant table>



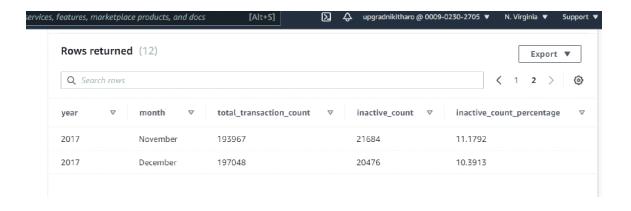
• 4. Number of overall ATM transactions going inactive per month for each month

<Query>

select total.year,
total.month,
total_transaction_count,
inactive_count,
convert(decimal(10,4),100.0*inactive_count/total_transaction_count) as
inactive_count_percentage
from

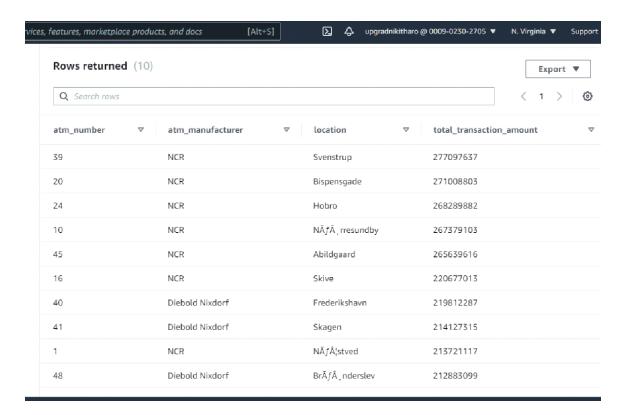
```
(
select year,month, count(*) as total_transaction_count
from
etl_proj_schema.fact_atm_trans A, etl_proj_schema.dim_date B
where A.date_id = B.date_id
group by year, month
) total,
(
select year,month, count(*) as inactive_count
from
etl_proj_schema.fact_atm_trans C, etl_proj_schema.dim_date D
where C.date_id = D.date_id
and
C.atm_status = 'Inactive'
group by year, month
) inactive
where total.month = inactive.month
order by inactive_count desc;
```

earch for service	s, features, marketpla	ce products, and docs	[Alt+S]	Ф upgradnikitharo @ 0009-	0230-2705 ▼ N. Virginia ▼ Suppor			
	Rows returned (12) Export ▼ Q. Search rows < 1 2 >							
	year ▽	month ▽	total_transaction_count	inactive_count ▽	inactive_count_percentage ▽			
	2017	April	218865	41830	19.1122			
	2017	March	209586	41046	19.5843			
	2017	July	227682	38139	16.7509			
	2017	May	222418	37679	16.9406			
	2017	June	225166	36789	16.3386			
	2017	August	217218	36713	16.9014			
	2017	February	182659	36656	20.0679			
	2017	January	180195	35953	19.9522			
	2017	September	202101	28913	14.3062			
	2017	October	191667	21780	11.3634			



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

```
select B.atm_number, B.atm_manufacturer, C.location, total_transaction_amount
from
(
    select atm_id, sum(transaction_amount) as total_transaction_amount
from
    etl_proj_schema.fact_atm_trans
group by atm_id
order by total_transaction_amount desc limit 10
) A,
    etl_proj_schema.dim_atm B,
    etl_proj_schema.dim_location C
where A.atm_id = B.atm_id
and B.atm_location_id = C.location_id
order by total_transaction_amount desc;
```



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

```
<Query>
select C.card_type, total_transaction_count, inactive_count,
convert(decimal(10,4),100.0*inactive count/total transaction count) as
inactive_count_percentage
from
select card_type_id, count(atm_id) as total_transaction_count
from
etl proj_schema.fact_atm_trans
group by card_type_id
order by total_transaction_count desc limit 10
) A,
select card_type_id, count(atm_id) as inactive_count
from
etl_proj_schema.fact_atm_trans
where atm_status = 'Inactive'
group by card_type_id
order by inactive_count desc limit 10
```

) B, etl_proj_schema.dim_card_type C where A.card_type_id = B.card_type_id AND A.card_type_id = C.card_type_id order by inactive_count_percentage desc;

<Screenshot of the resultant table>

Q Search rows			⟨ 1 ⟩
card_type ▽	total_transaction_count	▼ inactive_count	▼ inactive_count_percentage
Mastercard - on-us	458226	86000	18.7680
VISA	170828	30713	17.9789
Dankort - on-us	143813	24680	17.1611
CIRRUS	17362	2953	17.0084
$H ilde{A}f ilde{A}_i^l$ vekort - on-us	62487	10331	16.5330
Dankort	28581	4557	15.9441
MasterCard	400507	63482	15.8504
Visa Dankort - on-us	748805	112972	15.0869
$H\widetilde{A}f\widehat{A}_{i}^{i}vekort$	8459	1208	14.2806
Visa Dankort	427840	60547	14.1517

• 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

<Query>

select atm.atm_number, loc.location, CASE(date.weekday) when 'Saturday' then '1' when 'Sunday' then '1' else '0' end as weekend_flag, count(*) as total_transaction_count from etl_proj_schema.fact_atm_trans fact, etl_proj_schema.dim_atm atm , etl_proj_schema.dim_location loc, etl_proj_schema.dim_date date

where fact.atm_id = atm.atm_id and fact.weather_loc_id = loc.location_id and fact.date_id = date.date_id group by atm_number, location, weekend_flag order by atm_number, location, weekend_flag;

<Screenshot of the resultant table>

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	Rows returned (100)				Export ▼			
	Q Search rows				2 3	4 5 6 7	7 10 > 📵	
	atm_number	∇ location	▽	weekend_flag	∇	total_transactio	n_count	⊽
	1	$N \breve{A} f \hat{A}_{i}^{l} stved$		0		32711		
	1	NÃ/¦stved		1		10076		
	10	$N\tilde{A}f\hat{A}$, rresundby		0		41667		
	10	$N\tilde{A}f\hat{A}$, rresundby		1		12127		
	100	Intern Skive		0		17812		
	100	Intern Skive		1		1		
	101	Bryggen Vejle		0		11693		
	101	Bryggen Vejle		1		3247		
	102	Aalborg Storcenter Afd		0		14556		
	102	Aalborg Storcenter Afd		1		3741		

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

<Query>