### 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 a.atm\_number, a.atm\_manufacturer, l.location,

count(trans\_id) as total\_transaction\_count,

sum(case when atm\_status = 'Inactive' then 1 else 0 end) as

inactive\_count,

(inactive\_count/total\_transaction\_count)\*100 as count\_percent

from etl\_project.fact\_atm\_trans f, etl\_project.dim\_atm a, etl\_project.dim\_location l

where f.atm\_id = a.atm\_id and a.atm\_location\_id = l.location\_id

group by a.atm\_number, a.atm\_manufacturer, l.location

having count\_percent > 50

order by inactive\_count desc

limit 10;

<Screenshot of the resultant table>

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

select f.weather\_main,

count(trans\_id) as total\_transaction\_count,

sum(case when atm\_status = 'Inactive' then 1 else 0 end) as inactive\_count,

case when coalesce(inactive\_count, 0) = 0 then 0.0000

else trunc((cast(inactive\_count as

numeric(10,4))/total\_transaction\_count)\*100, 2)

end as inactive\_count\_percent

from etl\_project.fact\_atm\_trans f

where f.weather\_main != ''

group by f.weather\_main

order by inactive\_count\_percent desc

limit 10;

A screenshot of a computer

Description automatically generated

1. **Top 10 ATMs with the most number of transactions throughout the year**

<Query>

<Screenshot of the resultant table>

1. **Number of overall ATM transactions going inactive per month for each month**

<Query>

<Screenshot of the resultant table>

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 **Top 10 ATMs with the highest total withdrawn amount throughout the year**

<Query>

<Screenshot of the resultant table>

1. **Number of failed ATM transactions across various card types**

<Query>

<Screenshot of the resultant table>

1. **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>

<Screenshot of the resultant table>

1. **Most active day in each ATMs from location "Vejgaard"**

<Query>

<Screenshot of the resultant table>