RedShift Queries

– Query 1

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

with ATM_LOC as(

select t.atm_id,t.atm_number,t.atm_manufacturer,l.location

from ATM.DIM_ATM as t join ATM.DIM_LOCATION l

on t.atm_location_id = l.location_id)

select a.atm_number , a.atm_manufacturer , a.location , count(f.atm_status) as inactive_count
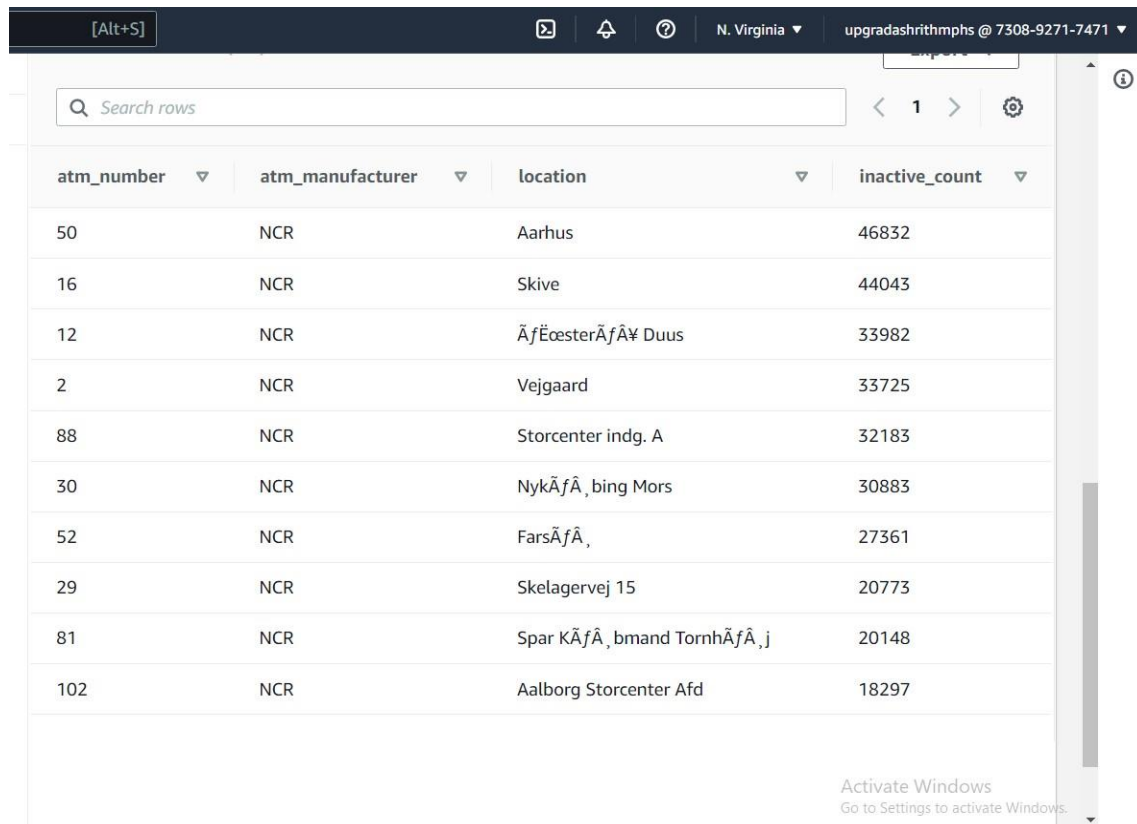
from ATM.FACT_ATM_TRANS f join ATM_LOC a

on f.atm_id = a.atm_id

where atm_status='Inactive'

group by a.atm_number , a.atm_manufacturer , a.location

order by inactive_count desc

limit 10;

atm_number	atm_manufacturer	location	inactive_count
50	NCR	Aarhus	46832
16	NCR	Skive	44043
12	NCR	ÃƒËœsterÃƒÂ¥ Duus	33982
2	NCR	Vejgaard	33725
88	NCR	Storcenter indg. A	32183
30	NCR	NykÃƒÂ¸bing Mors	30883
52	NCR	FarsÃƒÂ¸	27361
29	NCR	Skelagervej 15	20773
81	NCR	Spar KÃƒÂ¸bmand TornhÃƒÂ¸j	20148
102	NCR	Aalborg Storcenter Afd	18297

RedShift Queries

– Query 2

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

with wea_inc as(

select weather_main, count(atm_status) as inactive_count

from ATM.FACT_ATM_TRANS

where atm_status='Inactive' and weather_main in ('Clear' , 'Clouds' ,'Drizzle','Fog' , 'Haze','Mist' ,'Rain' , 'Snow' ,

'Thunderstorm' ,'TORNADO')

group by weather_main

),

wea_total as(

select weather_main, count(atm_status) as total_status_count

from ATM.FACT_ATM_TRANS

where weather_main in ('Clear' , 'Clouds' ,'Drizzle','Fog' , 'Haze','Mist' ,'Rain' , 'Snow' ,

'Thunderstorm' ,'TORNADO')

group by weather_main)

select t.weather_main, i.inactive_count,

(cast(i.inactive_count as float)/cast(t.total_status_count as float) * 100) as inactive_count_percent

from wea_total as t join wea_inc as i

on t.weather_main = i.weather_main

group by t.weather_main,i.inactive_count,inactive_count_percent

order by inactive_count_percent desc;

RedShift Queries

Rows returned (9)

Export ▼

Q Search rows

‹ 1 › ⚙

weather_main	inactive_count	inactive_count_percent
Snow	4813	20.56398205511643
Fog	3729	20.5183228788379
Clouds	194027	16.41651881164328
Rain	86017	15.779027213442543
Clear	85531	15.72408442703268
Mist	12864	15.536044250673301
Thunderstorm	361	14.162416633974107
Drizzle	8670	13.865344634575404
TORNADO	1	2.631578947368421

RedShift Queries

–Query 3

—Top 10 ATMs with the most number of transactions throughout the year

with ATM_LOC as(

select t.atm_id,t.atm_number,t.atm_manufacturer,l.location

from ATM.DIM_ATM as t join ATM.DIM_LOCATION l

      on t.atm_location_id = l.location_id)

select a.atm_number , a.atm_manufacturer , a.location , count(f.trans_id) as total_transaction_count
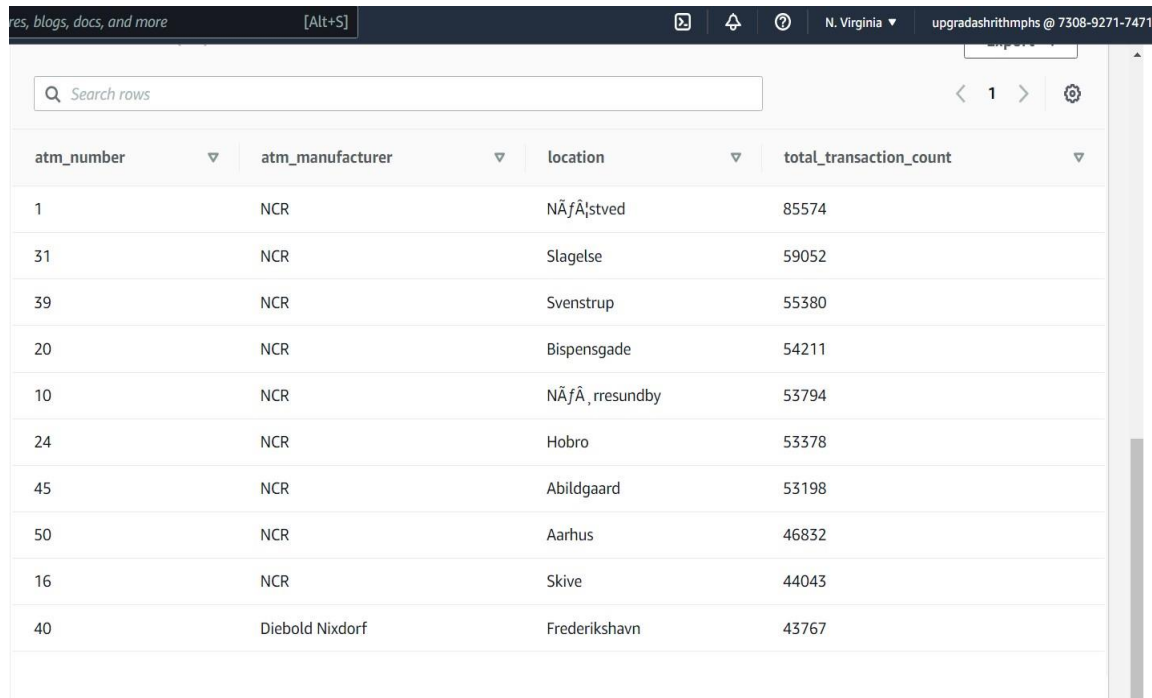
from

      ATM.FACT_ATM_TRANS f join ATM_LOC a

  on f.atm_id = a.atm_id

group by a.atm_number , a.atm_manufacturer , a.location

order by total_transaction_count desc

limit 10;

atm_number ▽	atm_manufacturer ▽	location ▽	total_transaction_count ▽
1	NCR	NÃƒÂ¦stved	85574
31	NCR	Slagelse	59052
39	NCR	Svenstrup	55380
20	NCR	Bispensgade	54211
10	NCR	NÃƒÂ¸rresundby	53794
24	NCR	Hobro	53378
45	NCR	Abildgaard	53198
50	NCR	Aarhus	46832
16	NCR	Skive	44043
40	Diebold Nixdorf	Frederikshavn	43767

RedShift Queries

– Query 4

—Number of overall ATM transactions going inactive per month for each month

with DATE_TRANS as (

select d.year , d.month, t.trans_id , t.atm_status

from ATM.FACT_ATM_TRANS as t join ATM.DIM_DATE d

  on t.date_id = d.date_id

),

year_month_total as (

select year , month , count(atm_status) as total_status_count , count(trans_id) as total_transaction_count

from DATE_TRANS

group by year ,month

),

year_month_inc as (

select year , month , count(atm_status) as inactive_count

from DATE_TRANS

where atm_status='Inactive'

group by year ,month)

select t.year ,t.month, t.total_transaction_count , i.inactive_count,(cast(i.inactive_count as float)/cast(t.total_status_count as float) * 100) as inactive_count_percent

from year_month_total as t join year_month_inc as i

on t.month = i.month

group by t.year ,t.month , t.total_transaction_count ,i.inactive_count,inactive_count_percent

order by inactive_count_percent desc;

RedShift Queries

Rows returned (12)   Export

Q Search rows   < 1 2 >

year ▽	month ▽	total_transaction_count ▽	inactive_count ▽	inactive_count_percent
2017	January	126409	25439	20.124358233986502
2017	February	147177	29287	19.899169027769283
2017	March	150907	29516	19.559066179832612
2017	April	161652	30315	18.753247717318686
2017	May	167070	29321	17.55012868857365
2017	August	160829	26966	16.766876620509983
2017	July	168024	27605	16.429200590391847
2017	June	169836	27400	16.133210862243576
2017	September	152963	23225	15.183410367212986
2017	October	139936	16236	11.602446832837868

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– Query 5

—Top 10 ATMs with the highest total amount withdrawn throughout the year

with ATM_LOC as(

select t.atm_id,t.atm_number,t.atm_manufacturer,l.location

from ATM.DIM_ATM as t join ATM.DIM_LOCATION l

       on t.atm_location_id = l.location_id)

select a.atm_number , a.atm_manufacturer , a.location , sum(f.transaction_amount) as total_transaction_amount

from

       ATM.FACT_ATM_TRANS f join ATM_LOC a

   on f.atm_id = a.atm_id

where service = 'Withdrawal'

group by a.atm_number , a.atm_manufacturer , a.location

order by total_transaction_amount desc

limit 10;

RedShift Queries

Rows returned (10)   Export

🔍 Search rows   ‹ 1 ›

atm_number ▽	atm_manufacturer ▽	location ▽	total_transaction_amount
1	NCR	NÃƒÂ¦stved	427442234
31	NCR	Slagelse	293398740
39	NCR	Svenstrup	277097637
20	NCR	Bispensgade	271008803
24	NCR	Hobro	268289882
10	NCR	NÃƒÂ¸rresundby	267379103
45	NCR	Abildgaard	265639616
50	NCR	Aarhus	234948660
16	NCR	Skive	220677013
40	Diebold Nixdorf	Frederikshavn	219812287

RedShift Queries

—Number of failed ATM transactions across various card types

with CARD_TRANS as (

select c.card_type, t.trans_id , t.atm_status

from ATM.FACT_ATM_TRANS as t join ATM.DIM_CARD_TYPE c

  on t.card_type_id = c.card_type_id

),

card_total as (

select card_type , count(atm_status) as total_status_count , count(trans_id) as total_transaction_count

from CARD_TRANS

group by card_type

),

card_inc as (

select card_type , count(atm_status) as inactive_count

from CARD_TRANS

where atm_status='Inactive'

group by card_type)

select t.card_type, t.total_transaction_count , i.inactive_count,(cast(i.inactive_count as float)/cast(t.total_status_count as float) * 100) as inactive_count_percent

from card_total as t join card_inc as i

on t.card_type = i.card_type

group by t.card_type , t.total_transaction_count ,i.inactive_count,inactive_count_percent

order by inactive_count_percent desc;

RedShift Queries

Rows returned (12)

Export

🔍 Search rows

‹ **1** 2 ›

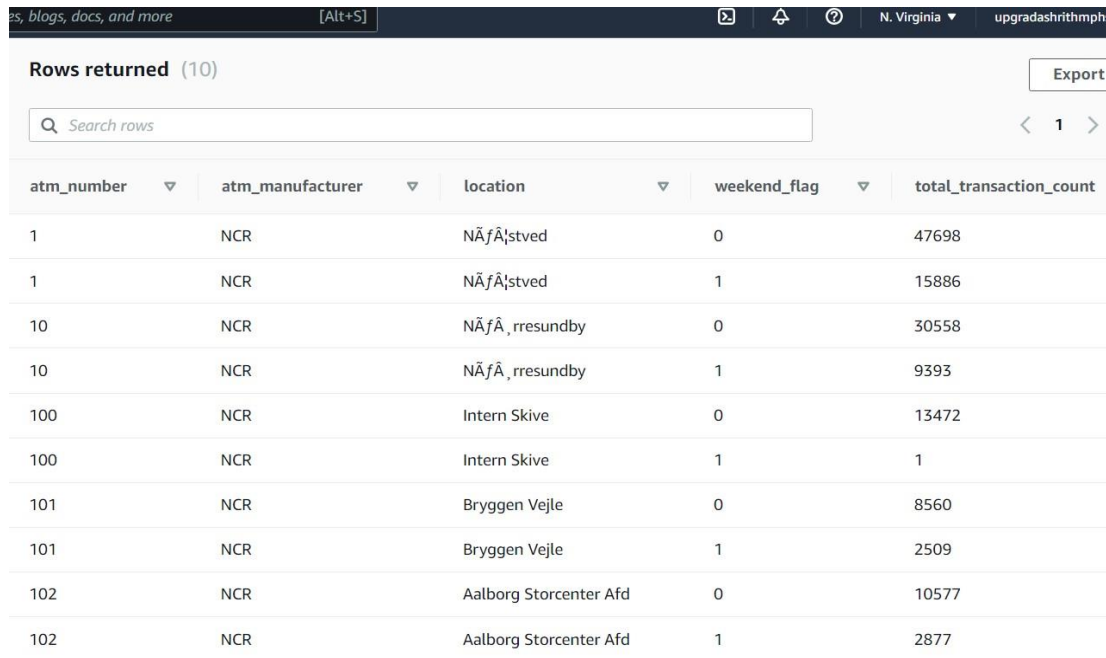| card_type ▽	total_transaction_count ▽	inactive_count ▽	inactive_count_percent
Mastercard - on-us	458226	86000	18.768031495375645
VISA	170828	30713	17.97890275598848
Dankort - on-us	143813	24680	17.161174580879337
CIRRUS	17362	2953	17.008409169450527
HÃƒÂ¦vekort - on-us	62487	10331	16.533038872085392
Dankort	28581	4557	15.94415870683321
MasterCard	400507	63482	15.850409605824616
Visa Dankort - on-us	748805	112972	15.086971908574329
HÃƒÂ¦vekort	8459	1208	14.28064783071285
Visa Dankort	427840	60547	14.151785714285714

RedShift Queries

—Top 10 records with the number of transactions ordered by the ATM_number, ATM_manufacturer, location, weekend_flag and then total_transaction_count, on weekdays and on weekends throughout the year

```sql
with WEEKEND as (

select date_id ,

case

        when weekday in ('Saturday', 'Sunday') then 1

        else 0

        end as weekend_flag

from ATM.DIM_DATE),

ATM_LOC as(

select t.atm_id,t.atm_number,t.atm_manufacturer,l.location

from ATM.DIM_ATM as t join ATM.DIM_LOCATION l

        on t.atm_location_id = l.location_id)

select a.atm_number , a.atm_manufacturer , a.location  , w.weekend_flag ,
count(f.trans_id) as total_transaction_count

from  ATM.FACT_ATM_TRANS f join ATM_LOC a

   on f.atm_id = a.atm_id

   join WEEKEND w

   on f.date_id = w.date_id

group by  a.atm_number , a.atm_manufacturer , a.location  , w.weekend_flag

order by  a.atm_number , a.atm_manufacturer , a.location  , w.weekend_flag,
total_transaction_count

limit 10;
```

RedShift Queries

Rows returned (10)   Export

Q Search rows   ‹ 1 ›

atm_number ▽	atm_manufacturer ▽	location ▽	weekend_flag ▽	total_transaction_count
1	NCR	NÃƒÂ¦stved	0	47698
1	NCR	NÃƒÂ¦stved	1	15886
10	NCR	NÃƒÂ¸rresundby	0	30558
10	NCR	NÃƒÂ¸rresundby	1	9393
100	NCR	Intern Skive	0	13472
100	NCR	Intern Skive	1	1
101	NCR	Bryggen Vejle	0	8560
101	NCR	Bryggen Vejle	1	2509
102	NCR	Aalborg Storcenter Afd	0	10577
102	NCR	Aalborg Storcenter Afd	1	2877

– Query 8

—Most active day in each ATMs from location "Vejgaard"

with ATM_LOC as(

select t.atm_id,t.atm_number,t.atm_manufacturer,l.location

from ATM.DIM_ATM as t join ATM.DIM_LOCATION l

on t.atm_location_id = l.location_id)

select a.atm_number , a.atm_manufacturer , a.location , d.weekday , count(f.trans_id) as total_transaction_count

from ATM.FACT_ATM_TRANS f join ATM_LOC a

   on f.atm_id = a.atm_id

   join ATM.DIM_DATE d

   on f.date_id = d.date_id

group by a.atm_number , a.atm_manufacturer , a.location , d.weekday

order by   total_transaction_count desc, d.weekday limit 10;

RedShift Queries

Rows returned (10)

🔍 Search rows

< 1

atm_number ▽	atm_manufacturer ▽	location ▽	weekday ▽	total_transaction_coun
1	NCR	NÃƒÂ¦stved	Friday	11858
1	NCR	NÃƒÂ¦stved	Thursday	10514
1	NCR	NÃƒÂ¦stved	Saturday	9388
10	NCR	NÃƒÂ¸rresundby	Friday	8975
1	NCR	NÃƒÂ¦stved	Wednesday	8970
1	NCR	NÃƒÂ¦stved	Tuesday	8322
1	NCR	NÃƒÂ¦stved	Monday	8034
24	NCR	Hobro	Friday	7774
39	NCR	Svenstrup	Friday	7507
31	NCR	Slagelse	Friday	7494