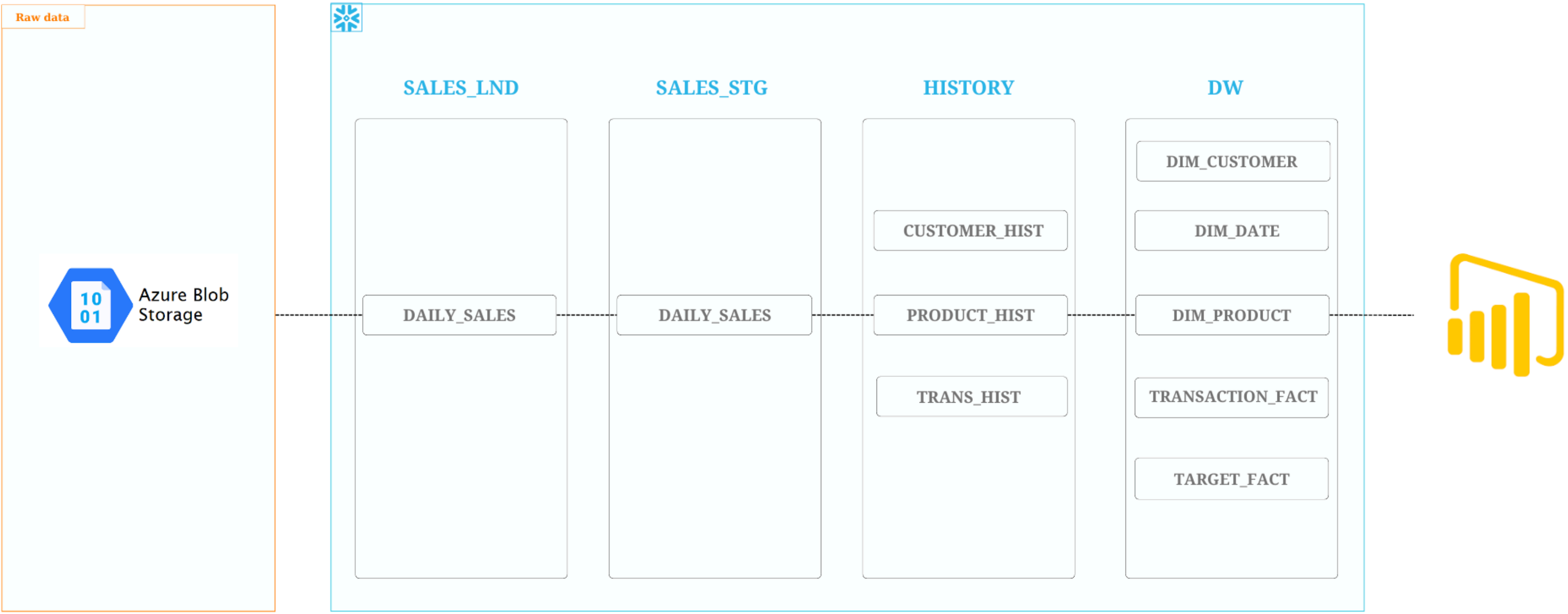
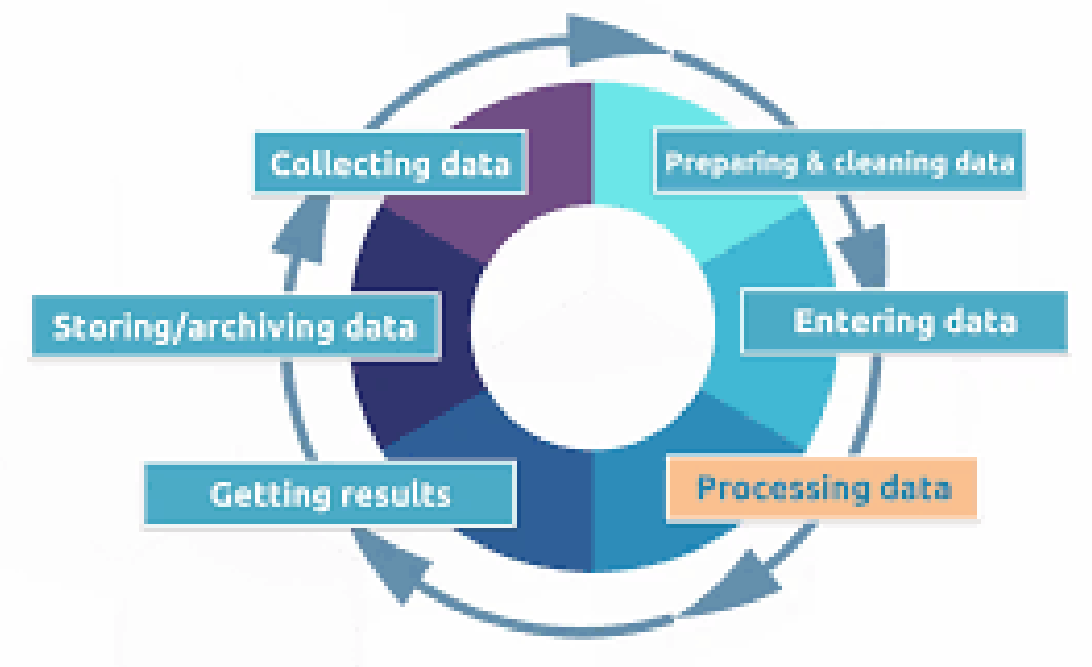


Data Layer





Processing data



Input data

 Upload

 Add Directory

 Refresh

 Rename

 Delete

 Change tier

 Acquire lease

 Break lease




 Give feedback

Authentication method: Access key ([Switch to Microsoft Entra user account](#))

Location: snowflakecsv

Search blobs by prefix (case-sensitive)

☐ Show deleted objects

Name		Modified	Access tier	Archive status	Blob type	Size	Lease state	
<input type="checkbox"/>	 dailysales_02102021.csv	12/9/2024, 4:37:22 PM	Hot (Inferred)		Block blob	10.79 KiB	Available	...
<input type="checkbox"/>	 dailysales_03102021.csv	12/12/2024, 4:45:42 ...	Hot (Inferred)		Block blob	3.52 KiB	Available	...
<input type="checkbox"/>	 dailysales_04102021.csv	12/14/2024, 4:05:12 ...	Hot (Inferred)		Block blob	4.13 KiB	Available	...

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	,Customer_	Code,	customer_name,	customer_type_name,	area_name,	region_name,	Invoice_Number,	Invoice_Date,	ZP_Item_Code,	Price,	Quantity			
2	0,	30190521,	CN Quay CPDP Ben Tai-	NT So 02 Hello,	Beauty,	Ho Chi Minh,	HCMC,	1225690651,	2021-10-02,	21085258,	204286,	1		
3	1,	30191419,	Cong Ty TMDP Huynh Kim Hello,	Wholesaler,	Ho Chi Minh,	HCMC,	1225691640,	2021-10-02,	21193950,	179600,	3			
4	2,	30191419,	Cong Ty TMDP Huynh Kim Hello,	Wholesaler,	Ho Chi Minh,	HCMC,	1225691630,	2021-10-02,	21193950,	179600,	31			
5	3,	30173102,	Cong Ty Co Phan NThuong Da K	Thanh Thanhnn My Da Lat Hello,	Beauty Dep,	Lam Dong,	North,	1212577120,	2021-10-02,	21193955,	547627,	5		
6	4,	30173737,	Cong Ty Co Phan TMDV Thang Long Hello,	Beauty Dep,	Khanh Hoa,	North,	1212576969,	2021-10-02,	21193949,	204286,	10			
7	5,	30191729,	Cong Ty CPDP Gia Dinh- NT So 21 Hello,	Beauty,	Ho Chi Minh,	HCMC,	1225690758,	2021-10-02,	21085258,	204286,	100			
8	6,	30191729,	Cong Ty CPDP Gia Dinh- NT So 21 Hello,	Beauty,	Ho Chi Minh,	HCMC,	1225690661,	2021-10-02,	21193946,	203743,	2			
9	7,	30189144,	Chau Thanhng Sinh Hello,	Beauty,	Nghe An,	Mekong,	1225691005,	2021-10-02,	21193949,	204286,	10			
10	8,	30185015,	Dai Ly Ban Cho Quay CPDP TV.	Faom (To) Hello,	Beauty,	Thai Nguyen,	Mekong,	1225691687,	2021-10-02,	21193966,	169886,	2		

Ingest data

```
CREATE OR REPLACE PROCEDURE DEMO_DB.SALES_LND.SP_LOAD_RAW_TO_LND()  
RETURNS TABLE()  
LANGUAGE SQL  
EXECUTE AS OWNER  
AS  
DECLARE  
    res RESULTSET;  
    select_statement VARCHAR;  
BEGIN  
    create or replace stream DEMO_DB.SALES_LND.stream_lnd on table DEMO_DB.SALES_LND.DAILY_SALES APPEND_ONLY=TRUE;  
  
    COPY INTO DAILY_SALES  
    FROM @stage_azure  
    FILE_FORMAT = (format_name = azure_fileformat)  
    PATTERN = '.*dailysales.*';  
    --RETURN 'Successful load';  
    select_statement:= 'select * from table(result_scan(last_query_id()))';  
    res := (EXECUTE IMMEDIATE :select_statement);  
    RETURN TABLE(res);  
END;
```

LOAD TO STAGING

```
INSERT INTO DEMO_DB.SALES_STG.DAILY_SALES
SELECT TRIM(s.id) as id,
       TRIM(s.customer_code) as customer_code,
       TRIM(s.customer_name) as customer_name,
       PARSE_JSON(s.customer_info):name::STRING as contact_person,
       PARSE_JSON(s.customer_info):email::STRING as contact_email,
       TRIM(s.customer_type_name) as customer_type_name,
       TRIM(s.area_name) as area_name,
       TRIM(s.region_name) as region_name,
       TRIM(s.invoice_number) as invoice_code,
       TRIM(s.item_code) as item_code,
       TRIM(s.item_name) as item_name,
       s.price,
       s.quantity,
       TO_DATE(s.invoice_date, 'YYYY-MM-DD') as invoice_date,
       CURRENT_TIMESTAMP() as created_at
FROM DEMO_DB.SALES_LND.stream_lnd as s
WHERE METADATA$ACTION = 'INSERT';
```

SCD TYPE 2



Records in initial load

30172683	NT Thanhng Hello	gregorybooth@example.org	2024-12-12 01:43:26.383	null	1000-01-01	9999-12-31	Y

Capture the changes with SCD 2

	CUSTOMER_CODE	CUSTOMER_NAME	CONTACT_EMAIL	INSERT_AT	UPDATE_AT	START_DATE	END_DATE	CURRENT_FLAG
1	30172406	KThanh NThuong Tinh Khanh Thanh Hello	kinganna@example.org	2024-12-12 01:43:26.383	2024-12-14 01:05:30.511	1000-01-01	2024-12-13	N
2	30172406	KThanh NThuong Tinh Khanh Thanh	cory81@example.org	2024-12-14 01:05:30.511	null	2024-12-14	9999-12-31	Y
3	30174268	Quay Doanh Nghiep Becamex So 131 Hello	sosborne@example.net	2024-12-12 01:43:26.383	2024-12-12 01:46:28.120	1000-01-01	2024-12-11	N
4	30174268	Quay Doanh Nghiep Becamex So 132	sydney smith@example.com	2024-12-12 01:46:28.120	2024-12-14 01:05:30.511	2024-12-12	2024-12-13	N
5	30174268	Quay Doanh Nghiep Becamex So 131 Hello	svdneysmith@example.com	2024-12-14 01:05:30.511	null	2024-12-14	9999-12-31	Y

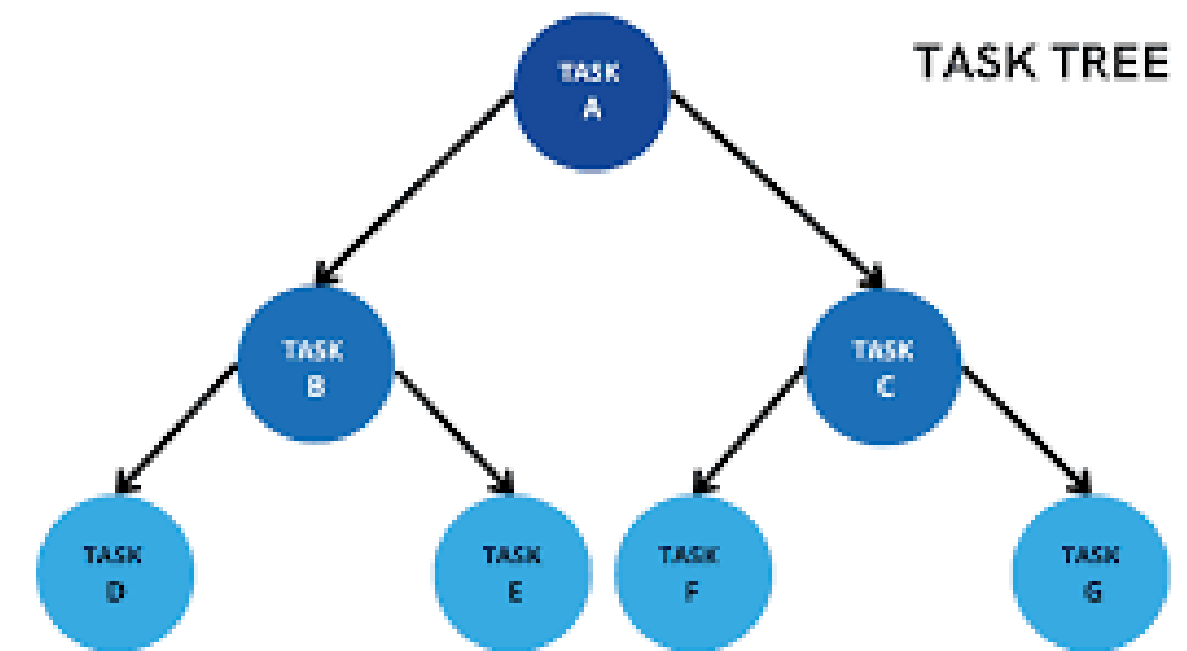
create checksum values

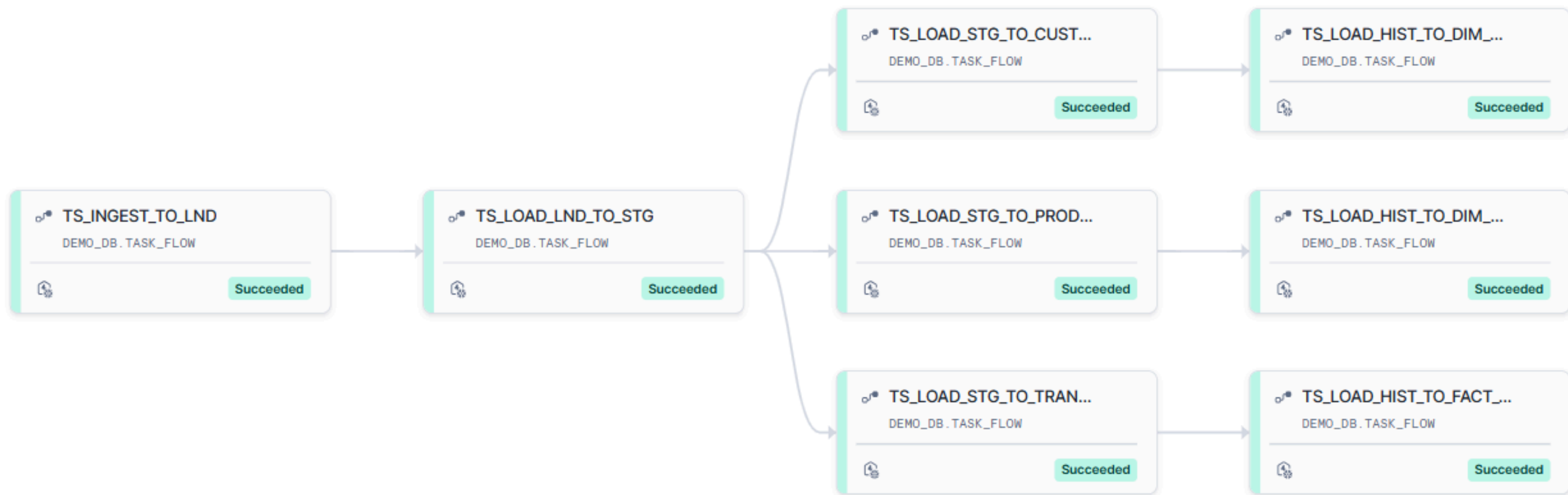
```
md5(concat_ws('||', customer_code)) as primary_checksum,  
md5(  
    concat_ws(  
        '||',  
        coalesce(customer_name, ''),  
        coalesce(contact_person, ''),  
        coalesce(contact_email, ''),  
        coalesce(area_name, ''),  
        coalesce(region_name, '')  
    )  
) as record_checksum,
```

check if a record is updated or inserted

```
2         FINAL_DATA  
3     ) as source ON target.primary_checksum = source.primary_checksum  
4     AND source.insert_or_update = 'U'  
5     AND target.current_flag = 'Y'  
6     WHEN MATCHED THEN  
7     UPDATE  
8     SET  
9         target.update_at = current_timestamp(),  
0         target.end_date = DATEADD(day, -1, current_date()),  
1         target.current_flag = 'N'  
2     WHEN NOT MATCHED THEN  
3     INSERT
```

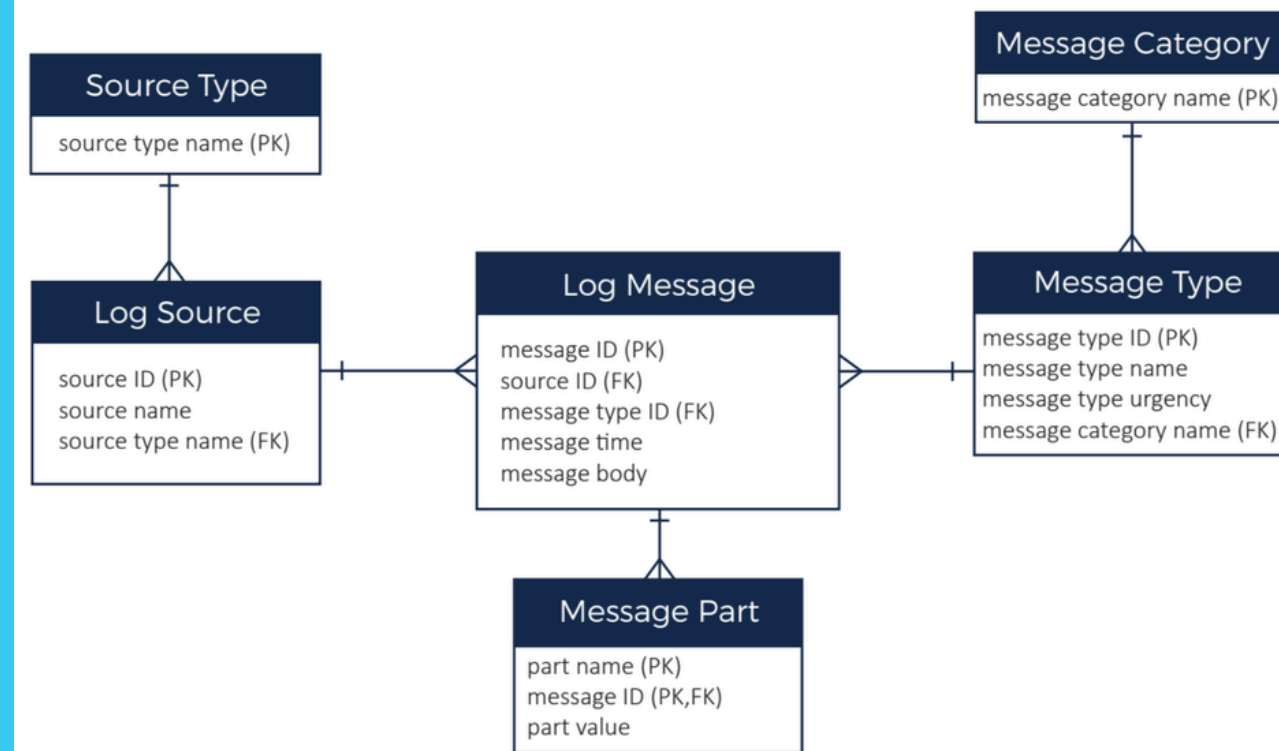
TASK SCHEDULE





TS_INGEST_TO_LND	SP_LOAD_RAW_TO_LND()
TS_LOAD_LND_TO_STG	SP_LOAD_LND_TO_STG()
TS_LOAD_STG_TO_PRODUCT_HIST	SP_LOAD_TO_PRODUCT_HIST()
TS_LOAD_STG_TO_CUSTOMER_HIST	SP_LOAD_TO_CUSTOMER_HIST()
TS_LOAD_STG_TO_TRANSACTION_HIST	SP_LOAD_TO_TRANSACTION_HIST()
TS_LOAD_HIST_TO_DIM_CUSTOMER	SP_LOAD_TO_DIM_CUSTOMER()
TS_LOAD_HIST_TO_DIM_PRODUCT	SP_LOAD_TO_DIM_PRODUCT
TS_LOAD_HIST_TO_FACT_TRANSACTION	SP_LOAD_TO_FACT_TRANSACTION()

DATA MODELING



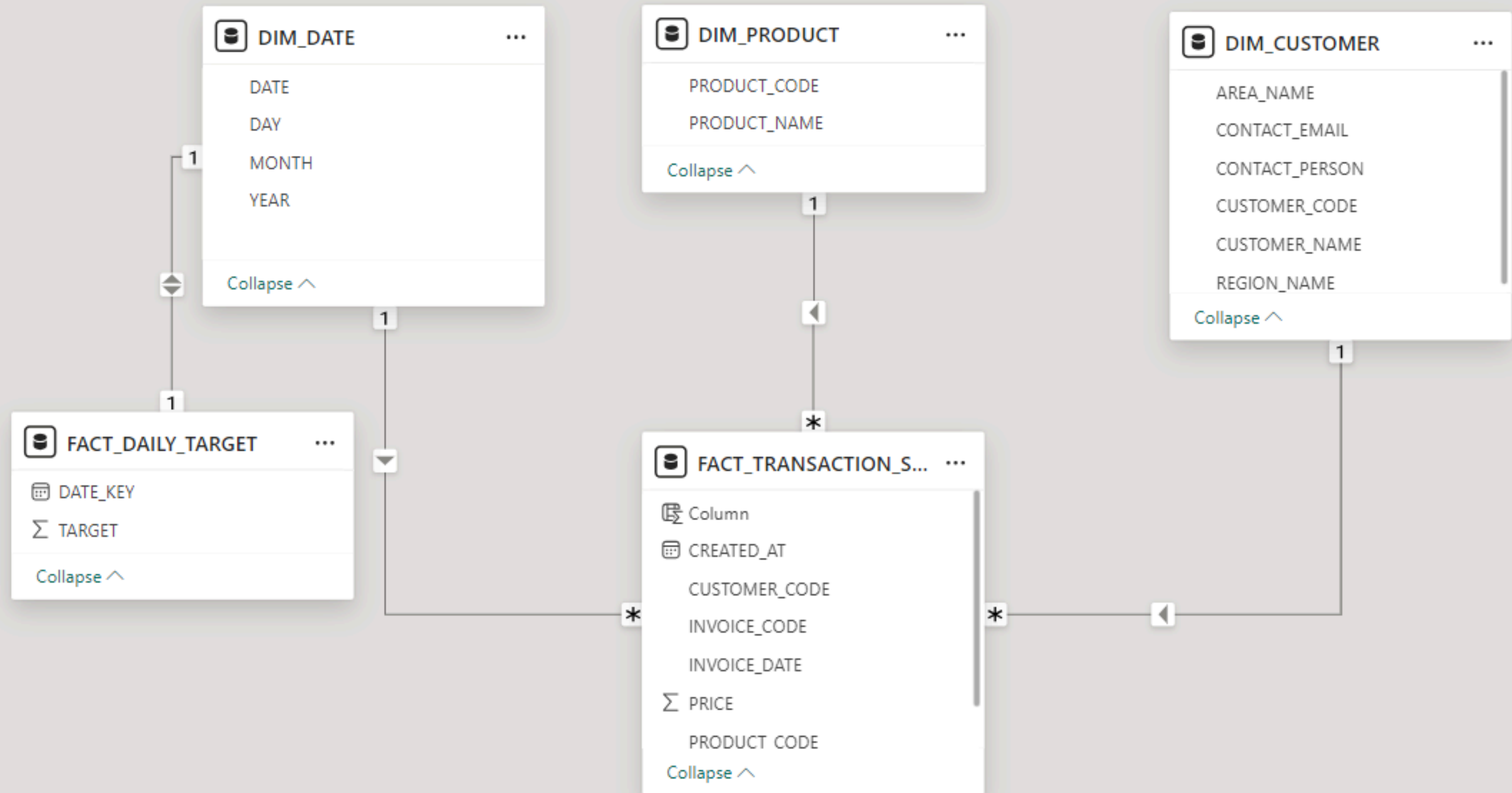
dim_customer		
customer_code	STRING	
customer_name	STRING	
contact_person	STRING	
contact_email	STRING	
area_name	STRING	
region_name	STRING	

fact_transaction_sales		
invoice_code	STRING	
customer_code	STRING	
product_code	STRING	
price	FLOAT	
quantity	INT	
invoice_date	DATE	
created_at	TIMESTAMP	

dim_product		
product_code	STRING	
product_name	STRING	

dim_date		
date	DATE	
day	int	
month	int	
year	int	

fact_daily_target		
date_key	DATE	
target	FLOAT	



Power BI





DASHBOARD

Centre

Hanoi

HCMC

Mekong

North

Updated to
04-10-2021



Total sales

20.34bn

Previous day sales

20.34bn

Sales gap

0%



% Achieve

No data



Date

All

Product

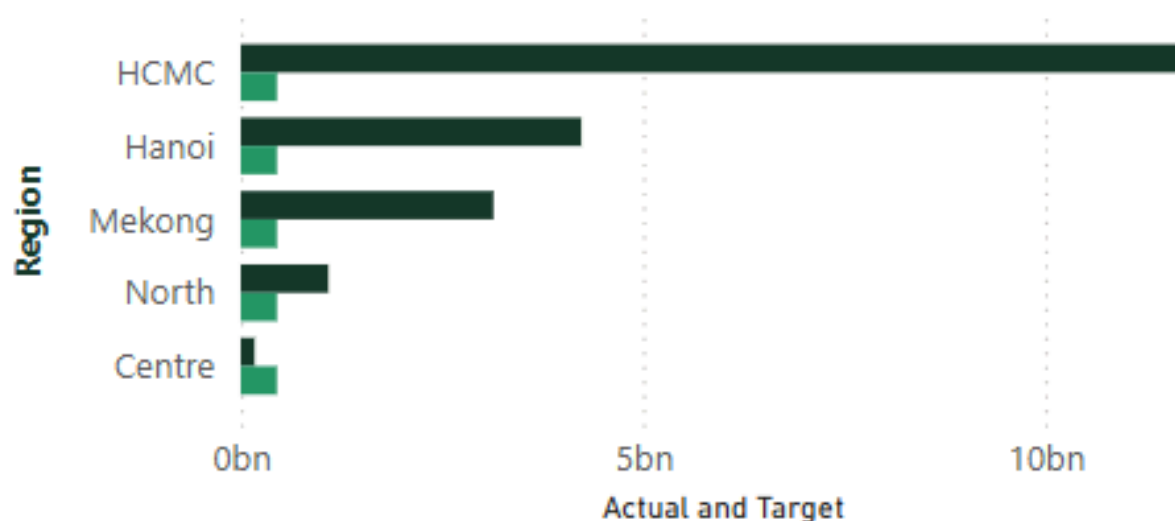
All

Area

All

Actual vs Target

● Actual ● Target



Customer

Product

Customer

Product

Quay Tuan Huyen Hello

QUAT MAY SENKO

Quay So 1011-Ds Chu Manh Cuong Hello

TU LANH SAMSUNG

Quay So 0-Quay CPDP Trang Anh Hello

MAY GIAT ELECTROLU

Quay So 0-Quay CPDP Trang Anh Hello

MAY LANH SONY

Quay Nguyen Tai Hello

LAPTOP LENOVO

Quay Nguyen Tai Hello

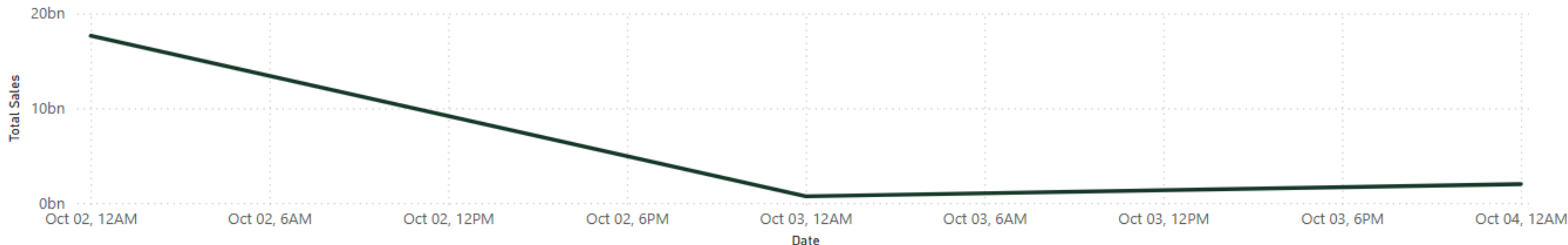
MAY GIAT ELECTROLU

Quay Nguyen Tai Hello

MAY LOC KHONG KHI

Total

Sales by time





DETAIL

Quay Tuan Huyen Hello

Invoice code	Date	Customer code	Customer name	Region	Product	Unit Price	Quantity	Total Sales
1225691726	Sunday, October 03, 2021	30184794	Quay Tuan Huyen Hello	Mekong	QUAT MAY SENKO	206,914.00	10	2,069,140
Total						206,914.00	10	2,069,140