USE ROLE MEDIA\_ROLE;

USE DATABASE MEDIA\_DB;

CREATE OR REPLACE SCHEMA DW;

USE SCHEMA DW;

SELECT CURRENT\_DATE(), CURRENT\_TIMESTAMP();

CREATE OR REPLACE TABLE DW.DATE\_DIM (

DATE\_KEY NUMBER(10) PRIMARY KEY,

FULL\_DATE DATE,

DAY\_NUM NUMBER(3),

WEEKDAY\_ABBR VARCHAR(3),

WEEKDAY\_NUM NUMBER(1),

DAY\_OF\_YEAR\_NUM NUMBER(3),

WEEK\_OF\_YEAR NUMBER(2),

MONTH\_NUM NUMBER(2),

MONTH\_ABBR VARCHAR(3),

QUARTER\_NUM NUMBER(1),

QUARTER\_NAME VARCHAR(3),

YEAR\_NUM NUMBER(4),

FIRST\_DAY\_OF\_MONTH DATE,

LAST\_DAY\_OF\_MONTH DATE,

IS\_WEEKEND VARCHAR(1)

);

CREATE OR REPLACE TABLE DW.TIME\_DIM (

TIME\_KEY NUMBER(4) PRIMARY KEY,

HOUR\_NUM INTEGER,

MINUTE\_NUM INTEGER,

TIME\_24\_HR STRING

);

CREATE OR REPLACE TABLE DW.CUSTOMER\_DIM(

CUSTOMER\_KEY NUMBER(10) IDENTITY(1,1) PRIMARY KEY,

CUSTOMER\_ID NUMBER(10),

FIRST\_NAME VARCHAR(100),

LAST\_NAME VARCHAR(100),

COMPANY\_NAME VARCHAR(100),

CITY VARCHAR(100),

STATE VARCHAR(50),

COUNTRY VARCHAR(50),

ZIP\_CODE VARCHAR(10),

EMPLOYEE\_ID NUMBER(10),

IS\_ACTIVE VARCHAR(1) DEFAULT 'Y',

SOURCE\_ID VARCHAR(50),

DATE\_TO\_WAREHOUSE DATETIME DEFAULT CURRENT\_TIMESTAMP()

);

CREATE OR REPLACE SEQUENCE CUSTOMER\_DIM\_SEQ START = 1 INCREMENT = 1;

CREATE OR REPLACE TABLE DW.ARTIST\_DIM(

ARTIST\_KEY NUMBER(10) DEFAULT ARTIST\_DIM\_SEQ.NEXTVAL PRIMARY KEY,

ARTIST\_ID NUMBER(10),

MEDIA\_DB.DW.CUSTOMER\_DIM

ARTIST\_NAME VARCHAR(150),

SOURCE\_ID VARCHAR(50),

DATE\_TO\_WAREHOUSE DATETIME DEFAULT CURRENT\_TIMESTAMP()

);

CREATE OR REPLACE SEQUENCE ARTIST\_DIM\_SEQ START = 1 INCREMENT = 1;

CREATE TABLE DW.SALES\_FACT(

SALES\_KEY NUMBER(10) PRIMARY KEY,

CUSTOMER\_KEY NUMBER(10),

INVOICE\_ID NUMBER(10),

--SALE\_DATE DATETIME,

DATE\_DIM\_KEY NUMBER(10),

TOTAL\_SALE\_AMT NUMBER(10,2),

SOURCE\_ID NUMBER(10),

DATE\_TO\_WAREHOUSE DATETIME DEFAULT CURRENT\_TIMESTAMP()

);

--CLUSTER BY (SALE\_DATE);

CREATE OR REPLACE SEQUENCE SALES\_FACT\_SEQ START = 1 INCREMENT = 1;

-- validation

SHOW TABLES IN SCHEMA DW;

--2

CREATE OR REPLACE SCHEMA DW;

CREATE OR REPLACE SCHEMA STAGE;

CREATE OR REPLACE TABLE STAGE.Artist

(

ArtistId INTEGER,

Name STRING(120),

Created\_By STRING(100),

Created\_Dt date

);

CREATE OR REPLACE TABLE STAGE.Genre

(

GenreId INTEGER,

Name STRING(120),

Created\_By STRING(100),

Created\_Dt date);

CREATE OR REPLACE TABLE STAGE.Album(

AlbumId INTEGER,

Title STRING(160),

ArtistId INTEGER,

Created\_By STRING(100),

Created\_Dt DATE);

CREATE OR REPLACE TABLE STAGE.Customer(

CustomerId INTEGER,

FirstName STRING(40) ,

LastName STRING(20) ,

Company STRING(80),

Address STRING(70),

City STRING(40),

State STRING(40),

Country STRING(40),

PostalCode STRING(10),

Phone STRING(24),

Fax STRING(24),

Email STRING(60),

SupportRepId INTEGER,

Created\_By STRING(100),

Created\_Dt DATE

);

CREATE OR REPLACE TABLE STAGE.Invoice(

InvoiceId INTEGER ,

CustomerId INTEGER ,

InvoiceDate DATETIME ,

BillingAddress STRING(70),

BillingCity STRING(40),

BillingState STRING(40),

BillingCountry STRING(40),

BillingPostalCode STRING(10),

Total NUMBER(10, 2) ,

Created\_By STRING(100),

Created\_Dt DATE

);

CREATE OR REPLACE TABLE STAGE.InvoiceLine(

InvoiceLineId INTEGER,

InvoiceId INTEGER ,

TrackId INTEGER ,

UnitPrice NUMBER(10, 2) ,

Quantity INTEGER ,

Created\_By STRING(100),

Created\_Dt DATE

);

--Validation

SHOW TABLES IN SCHEMA STAGE;

**DATE\_DIM**

USE ROLE MEDIA\_ROLE;

USE WAREHOUSE MEDIA\_WH;

USE DATABASE MEDIA\_DB;

USE SCHEMA DW;

INSERT INTO DATE\_DIM

(

DATE\_KEY,

FULL\_DATE,

DAY\_NUM,

WEEKDAY\_ABBR,

WEEKDAY\_NUM,

DAY\_OF\_YEAR\_NUM,

WEEK\_OF\_YEAR,

MONTH\_NUM,

MONTH\_ABBR,

QUARTER\_NUM,

QUARTER\_NAME,

YEAR\_NUM,

FIRST\_DAY\_OF\_MONTH,

LAST\_DAY\_OF\_MONTH,

IS\_WEEKEND

)

SELECT

ROW\_NUMBER() OVER (ORDER BY SEQ4()) AS DATE\_KEY,

DATEADD(DAY, SEQ4(), '2010-01-01') AS FULL\_DATE,

EXTRACT(DAY FROM DATEADD(DAY, SEQ4(), '2010-01-01')) AS DAY\_NUM,

TO\_VARCHAR(TO\_CHAR(DATEADD(DAY, SEQ4(), '2010-01-01'), 'DY')) AS WEEKDAY\_ABBR,

EXTRACT(DAYOFWEEK FROM DATEADD(DAY, SEQ4(), '2010-01-01')) AS WEEKDAY\_NUM,

EXTRACT(DOY FROM DATEADD(DAY, SEQ4(), '2010-01-01')) AS DAY\_OF\_YEAR\_NUM,

EXTRACT(WEEK FROM DATEADD(DAY, SEQ4(), '2010-01-01')) AS WEEK\_OF\_YEAR,

EXTRACT(MONTH FROM DATEADD(DAY, SEQ4(), '2010-01-01')) AS MONTH\_NUM,

TO\_VARCHAR(TO\_CHAR(DATEADD(DAY, SEQ4(), '2010-01-01'), 'MON')) AS MONTH\_ABBR,

EXTRACT(QUARTER FROM DATEADD(DAY, SEQ4(), '2010-01-01')) AS QUARTER\_NUM,

CONCAT('Q', EXTRACT(QUARTER FROM DATEADD(DAY, SEQ4(), '2010-01-01'))) AS QUARTER\_NAME,

EXTRACT(YEAR FROM DATEADD(DAY, SEQ4(), '2010-01-01')) AS YEAR\_NUM,

DATE\_TRUNC('MONTH', DATEADD(DAY, SEQ4(), '2010-01-01')) AS FIRST\_DAY\_OF\_MONTH,

LAST\_DAY(DATEADD(DAY, SEQ4(), '2010-01-01')) AS LAST\_DAY\_OF\_MONTH,

CASE

WHEN DAYOFWEEK(DATEADD(DAY, SEQ4(), '2010-01-01')) IN (6,7) THEN 'Y'

ELSE 'N'

END AS IS\_WEEKEND

FROM TABLE(GENERATOR(ROWCOUNT => 7300)); -- ~20 years

**TIME\_DIM**

USE ROLE MEDIA\_ROLE;

USE WAREHOUSE MEDIA\_WH;

USE DATABASE MEDIA\_DB;

USE SCHEMA DW;

-- Load hour + minute combinations

INSERT INTO TIME\_DIM (TIME\_KEY, HOUR\_NUM, MINUTE\_NUM, TIME\_24\_HR)

SELECT

(HOUR\_NUM \* 100) + MINUTE\_NUM AS TIME\_KEY,

HOUR\_NUM,

MINUTE\_NUM,

LPAD(HOUR\_NUM, 2, '0') || ':' || LPAD(MINUTE\_NUM, 2, '0') AS TIME\_24\_HR

FROM (

SELECT HOUR\_NUM, MINUTE\_NUM

FROM TABLE(GENERATOR(ROWCOUNT => 1440)) g,

LATERAL (

SELECT FLOOR(ROW\_NUMBER() OVER (ORDER BY SEQ4()) / 60) AS HOUR\_NUM,

MOD(ROW\_NUMBER() OVER (ORDER BY SEQ4()), 60) AS MINUTE\_NUM

)

)

WHERE HOUR\_NUM < 24;

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A screenshot of a computer

AI-generated content may be incorrect.

ALTER TABLE DW.SALES\_FACT

ADD CONSTRAINT SALESFACT\_DATE

FOREIGN KEY (DATE\_DIM\_KEY) REFERENCES DW.DATE\_DIM(DATE\_KEY);

CREATE OR REPLACE TABLE DW.SALES\_FACT(

SALES\_KEY NUMBER(10) PRIMARY KEY, -- (optionally: DEFAULT SALES\_FACT\_SEQ.NEXTVAL)

CUSTOMER\_KEY NUMBER(10),

INVOICE\_ID NUMBER(10),

DATE\_DIM\_KEY NUMBER(10) NOT NULL, -- matches DATE\_DIM.DATE\_KEY

TOTAL\_SALE\_AMT NUMBER(10,2),

SOURCE\_ID NUMBER(10),

DATE\_TO\_WAREHOUSE DATETIME DEFAULT CURRENT\_TIMESTAMP(),

CONSTRAINT FK\_SALESFACT\_DATE

FOREIGN KEY (DATE\_DIM\_KEY) REFERENCES DW.DATE\_DIM(DATE\_KEY)

);