**PRACTICAL 1**

**This file contains generated SQL QUERIES OF STAR SCHEMA AND SNOWFLAKE SCHEMA.**

* **SQL CODE FOR STAR SCHEMA :**

CREATE TABLE PROMOTION (

PROMOTION\_KEY NUMERIC NOT NULL, PROMOTION\_CODE INTEGER, PROMOTION\_TYPE VARCHAR(30) NOT NULL, PROMOTION\_MEDIUM VARCHAR(30) NOT NULL, DISCOUNT\_RATE DECIMAL(2,2),

CONSTRAINT PROMOTION\_KEY PRIMARY KEY (PROMOTION\_KEY)

);

CREATE TABLE TIME (

TIME\_KEY NUMERIC NOT NULL, DATE DATE NOT NULL, DAY\_NUMBER INTEGER,

DAY\_OF\_WEEK VARCHAR(9) NOT NULL, WEEK\_NUMBER INTEGER NOT NULL,

MONTH\_NUMBER INTEGER, FISCAL\_PERIOD VARCHAR NOT NULL, MONTH INTEGER NOT NULL,

QUARTER VARCHAR,

YEAR VARCHAR NOT NULL,

CONSTRAINT TIME\_KEY PRIMARY KEY (TIME\_KEY)

);

CREATE TABLE STORE (

STORE\_KEY NUMERIC NOT NULL, STORE\_NAME VARCHAR(50) NOT NULL, MANAGER\_NAME VARCHAR(50) NOT NULL, STORE\_CODE NUMERIC NOT NULL, ADDRESS VARCHAR(100) NOT NULL, STATE VARCHAR(20) NOT NULL,

ZIP NUMERIC(6) NOT NULL,

CONSTRAINT STORE\_KEY PRIMARY KEY (STORE\_KEY)

);

CREATE TABLE PRODUCT (

PRODUCT\_KEY NUMERIC NOT NULL, PRODUCT\_NAME VARCHAR(50) NOT NULL, PRODUCT\_CODE NUMERIC NOT NULL, PRODUCT\_LINE LONGVARCHAR,

BRAND VARCHAR(30) NOT NULL, DEPARTMENT VARCHAR(10) NOT NULL,

CONSTRAINT PRODUCT\_KEY PRIMARY KEY (PRODUCT\_KEY)

);

CREATE TABLE SALES\_FACT (

PRODUCT\_KEY NUMERIC NOT NULL, TIME\_KEY NUMERIC NOT NULL, PROMOTION\_KEY NUMERIC NOT NULL,

STORE\_KEY NUMERIC NOT NULL, SOLD\_QUANTITY INTEGER NOT NULL, GROSS\_SALES FLOAT NOT NULL, NET\_SALES FLOAT NOT NULL,

COST NUMERIC(10,2) NOT NULL, STORE\_COUPON\_AMT DECIMAL NOT NULL, MFR\_COUPON\_AMOUNT DECIMAL NOT NULL

);

ALTER TABLE SALES\_FACT ADD CONSTRAINT PROMOTION\_SALES\_FACT\_fk FOREIGN KEY (PROMOTION\_KEY)

REFERENCES PROMOTION (PROMOTION\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE SALES\_FACT ADD CONSTRAINT TIME\_SALES\_FACT\_fk FOREIGN KEY (TIME\_KEY)

REFERENCES TIME (TIME\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE SALES\_FACT ADD CONSTRAINT STORE\_SALES\_FACT\_fk FOREIGN KEY (STORE\_KEY)

REFERENCES STORE (STORE\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE SALES\_FACT ADD CONSTRAINT PRODUCT\_SALES\_FACT\_fk FOREIGN KEY (PRODUCT\_KEY)

REFERENCES PRODUCT (PRODUCT\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

* **SQL QUERY OF SNOWFLAKE SCHEMA:**

CREATE TABLE QUARTER (

QUART\_ID NUMERIC NOT NULL, QUARTER VARCHAR,

FISCAL\_PERIOD VARCHAR NOT NULL,

CONSTRAINT QUART\_ID PRIMARY KEY (QUART\_ID)

);

CREATE TABLE ADDRESS (

ADDRESS\_KEY NUMERIC NOT NULL, ZIP NUMERIC(6) NOT NULL, ADDRESS VARCHAR(100) NOT NULL, STATE VARCHAR(20) NOT NULL,

CONSTRAINT ADDRESS\_KEY PRIMARY KEY (ADDRESS\_KEY)

);

CREATE TABLE PROMOTION (

PROMOTION\_KEY NUMERIC NOT NULL, PROMOTION\_CODE INTEGER, PROMOTION\_TYPE VARCHAR(30) NOT NULL, PROMOTION\_MEDIUM VARCHAR(30) NOT NULL, DISCOUNT\_RATE DECIMAL(2,2),

CONSTRAINT PROMOTION\_KEY PRIMARY KEY (PROMOTION\_KEY)

);

CREATE TABLE TIME (

TIME\_KEY NUMERIC NOT NULL, QUART\_ID NUMERIC NOT NULL, DATE DATE NOT NULL, DAY\_NUMBER INTEGER,

DAY\_OF\_WEEK VARCHAR(9) NOT NULL, WEEK\_NUMBER INTEGER NOT NULL, MONTH\_NUMBER INTEGER,

MONTH INTEGER NOT NULL, YEAR VARCHAR NOT NULL,

CONSTRAINT TIME\_KEY PRIMARY KEY (TIME\_KEY)

);

CREATE TABLE STORE (

STORE\_KEY NUMERIC NOT NULL, ADDRESS\_KEY NUMERIC NOT NULL, STORE\_NAME VARCHAR(50) NOT NULL, MANAGER\_NAME VARCHAR(50) NOT NULL, STORE\_CODE NUMERIC NOT NULL,

CONSTRAINT STORE\_KEY PRIMARY KEY (STORE\_KEY)

);

CREATE TABLE PRODUCT (

PRODUCT\_KEY NUMERIC NOT NULL,

PRODUCT\_NAME VARCHAR(50) NOT NULL, PRODUCT\_CODE NUMERIC NOT NULL, PRODUCT\_LINE LONGVARCHAR,

BRAND VARCHAR(30) NOT NULL, DEPARTMENT VARCHAR(10) NOT NULL,

CONSTRAINT PRODUCT\_KEY PRIMARY KEY (PRODUCT\_KEY)

);

CREATE TABLE SALES\_FACT (

PRODUCT\_KEY NUMERIC NOT NULL, TIME\_KEY NUMERIC NOT NULL, PROMOTION\_KEY NUMERIC NOT NULL, STORE\_KEY NUMERIC NOT NULL, SOLD\_QUANTITY INTEGER NOT NULL, GROSS\_SALES FLOAT NOT NULL, NET\_SALES FLOAT NOT NULL,

COST NUMERIC(10,2) NOT NULL, STORE\_COUPON\_AMT DECIMAL NOT NULL, MFR\_COUPON\_AMOUNT DECIMAL NOT NULL

);

ALTER TABLE TIME ADD CONSTRAINT QUARTER\_TIME\_fk FOREIGN KEY (QUART\_ID)

REFERENCES QUARTER (QUART\_ID) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE STORE ADD CONSTRAINT ADDRESS\_STORE\_fk FOREIGN KEY (ADDRESS\_KEY)

REFERENCES ADDRESS (ADDRESS\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE SALES\_FACT ADD CONSTRAINT PROMOTION\_SALES\_FACT\_fk FOREIGN KEY (PROMOTION\_KEY)

REFERENCES PROMOTION (PROMOTION\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE SALES\_FACT ADD CONSTRAINT TIME\_SALES\_FACT\_fk FOREIGN KEY (TIME\_KEY)

REFERENCES TIME (TIME\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE SALES\_FACT ADD CONSTRAINT STORE\_SALES\_FACT\_fk FOREIGN KEY (STORE\_KEY)

REFERENCES STORE (STORE\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

ALTER TABLE SALES\_FACT ADD CONSTRAINT PRODUCT\_SALES\_FACT\_fk FOREIGN KEY (PRODUCT\_KEY)

REFERENCES PRODUCT (PRODUCT\_KEY) ON DELETE NO ACTION

ON UPDATE NO ACTION NOT DEFERRABLE;

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