```sql
--SNOWFLAKE SCHEMA

CREATE TABLE LOCATION (
                LOCATION_KEY VARCHAR2(10) NOT NULL,
                STREET VARCHAR2(20) NOT NULL,
                CITY VARCHAR2(20) NOT NULL,
                STATE VARCHAR2(20) NOT NULL,
                COUNTRY VARCHAR2(20) NOT NULL,
                ZIP NUMBER NOT NULL,
                CONSTRAINT LOCATION_PK PRIMARY KEY (LOCATION_KEY)
);


CREATE TABLE CUSTOMER (
                CUSTOMER_KEY VARCHAR2(10) NOT NULL,
                CUSTOMER_NAME VARCHAR2(20) NOT NULL,
                CUSTOMER_CODE NUMBER NOT NULL,
                FAMILY_SIZE NUMBER NOT NULL,
                LOCATION_KEY VARCHAR2(10) NOT NULL,
                CONSTRAINT CUSTOMER_PK PRIMARY KEY (CUSTOMER_KEY)
);


CREATE TABLE STATUS (
                STATUS_KEY VARCHAR2(10) NOT NULL,
                NEW_CUSTOMER VARCHAR2(20) NOT NULL,
                NEW_ADDRESS VARCHAR2(45) NOT NULL,
                PAYMENT_OVERDUE NUMBER NOT NULL,
                CLOSED_THIS_PERIOD NUMBER NOT NULL,
                CONSTRAINT STATUS_PK PRIMARY KEY (STATUS_KEY)
);


CREATE TABLE TIME (
                TIME_KEY VARCHAR2(10) NOT NULL,
                MONTH_NUMBER NUMBER NOT NULL,
                MONTH VARCHAR2(20) NOT NULL,
                QUARTER NUMBER NOT NULL,
                FISCAL_PERIOD NUMBER NOT NULL,
                YEAR NUMBER NOT NULL,
                CONSTRAINT TIME_PK PRIMARY KEY (TIME_KEY)
);


CREATE TABLE PLAN (
                PLAN_KEY VARCHAR2(10) NOT NULL,
                PLAN_NAME VARCHAR2(20) NOT NULL,
                PLAN_CODE NUMBER NOT NULL,
                NUM_OF_PHONES NUMBER NOT NULL,
                MONTHLY_MINUTES NUMBER NOT NULL,
                ROLLOVER_MINUTES NUMBER NOT NULL,
                CONSTRAINT PLAN_PK PRIMARY KEY (PLAN_KEY)
);


CREATE TABLE SALES (
                PLAN_MINUTES NUMBER NOT NULL,
                OVERAGE_MINUTES NUMBER NOT NULL,
                MNTHLY_ACCESS_CHARGES NUMBER NOT NULL,
                MNTHLY_OVERAGE_CHARGES NUMBER NOT NULL,
                VOICE_USAGE NUMBER NOT NULL,
                DATA_USAGE VARCHAR2(10) NOT NULL,
                CUSTOMER_KEY VARCHAR2(10) NOT NULL,
                STATUS_KEY VARCHAR2(10) NOT NULL,
                PLAN_KEY VARCHAR2(10) NOT NULL,
                TIME_KEY VARCHAR2(10) NOT NULL
);
```

```
 70    ALTER TABLE CUSTOMER ADD CONSTRAINT LOCATION_CUSTOMER_FK
 71    FOREIGN KEY (LOCATION_KEY)
 72    REFERENCES LOCATION (LOCATION_KEY)
 73    NOT DEFERRABLE;
 74
 75    ALTER TABLE SALES ADD CONSTRAINT CUSTOMER_SALES_FK
 76    FOREIGN KEY (CUSTOMER_KEY)
 77    REFERENCES CUSTOMER (CUSTOMER_KEY)
 78    NOT DEFERRABLE;
 79
 80    ALTER TABLE SALES ADD CONSTRAINT STATUS_SALES_FK
 81    FOREIGN KEY (STATUS_KEY)
 82    REFERENCES STATUS (STATUS_KEY)
 83    NOT DEFERRABLE;
 84
 85    ALTER TABLE SALES ADD CONSTRAINT TIME_SALES_FK
 86    FOREIGN KEY (TIME_KEY)
 87    REFERENCES TIME (TIME_KEY)
 88    NOT DEFERRABLE;
 89
 90    ALTER TABLE SALES ADD CONSTRAINT PLAN_SALES_FK
 91    FOREIGN KEY (PLAN_KEY)
 92    REFERENCES PLAN (PLAN_KEY)
 93    NOT DEFERRABLE;
 94
 95    SQL> desc location;
 96     Name                                        Null?    Type
 97     ------------------------------------------- -------- ----------------------------
 98     LOCATION_KEY                                NOT NULL VARCHAR2(10)
 99     STREET                                      NOT NULL VARCHAR2(20)
100     CITY                                        NOT NULL VARCHAR2(20)
101     STATE                                       NOT NULL VARCHAR2(20)
102     COUNTRY                                     NOT NULL VARCHAR2(20)
103     ZIP                                         NOT NULL NUMBER(38)
104
105     INSERT INTO LOCATION VALUES('101','FUTULA LAKE','NGP','MH','INDIA',440010);
106     INSERT INTO LOCATION VALUES('102','RING ROAD','NGP','MH','INDIA',440011);
107
108    SQL> SELECT* FROM LOCATION;
109
110    LOCATION_K STREET               CITY                 STATE
111    ---------- -------------------- -------------------- --------------------
112    COUNTRY                     ZIP
113    -------------------- ----------
114    101        FUTULA LAKE          NGP                  MH
115    INDIA                       440010
116
117    102        RING ROAD            NGP                  MH
118    INDIA                       440011
119
120
121
122    SQL> DESC CUSTOMER;
123     Name                          Null?    Type
124     ----------------------------- -------- --------------------
125     CUSTOMER_KEY                  NOT NULL VARCHAR2(10)
126     CUSTOMER_NAME                 NOT NULL VARCHAR2(20)
127     CUSTOMER_CODE                 NOT NULL NUMBER(38)
128     FAMILY_SIZE                   NOT NULL NUMBER(38)
129     LOCATION_KEY                  NOT NULL VARCHAR2(10)
130
131    INSERT INTO CUSTOMER VALUES('101','NIDHI',31,7,'101');
132    INSERT INTO CUSTOMER VALUES('102','PADMA',21,5,'102');
133
134    SELECT* FROM CUSTOMER;
135
136    CUSTOMER_K CUSTOMER_NAME           CUSTOMER_CODE FAMILY_SIZE LOCATION_K
137    ---------- -------------------- ------------- ----------- ----------
138    101        NIDHI                          31           7 101
```

```
139   102         PADMA                         21          5 102
140
141   SQL> DESC STATUS;
142    Name                              Null?    Type
143    ---------------------------- -------- --------------------
144    STATUS_KEY                       NOT NULL VARCHAR2(10)
145    NEW_CUSTOMER                     NOT NULL VARCHAR2(20)
146    NEW_ADDRESS                      NOT NULL VARCHAR2(45)
147    PAYMENT_OVERDUE                  NOT NULL NUMBER(38)
148    CLOSED_THIS_PERIOD               NOT NULL NUMBER(38)
149
150    INSERT INTO STATUS VALUES('101','nilind','vashi',3000,2021);
151    INSERT INTO STATUS VALUES('102','mahesh','goregoan',30,1999);
152
153   SQL>  SELECT* FROM STATUS;
154
155   STATUS_KEY NEW_CUSTOMER         NEW_ADDRESS
156   ---------- -------------------- --------------------------------------------
157   PAYMENT_OVERDUE CLOSED_THIS_PERIOD
158   --------------- ------------------
159   101        nilind               vashi
160             3000                  2021
161
162   102        mahesh               goregoan
163               30                  1999
164
165
166   SQL> DESC PLAN;
167    Name                              Null?    Type
168    ---------------------------- -------- --------------------
169    PLAN_KEY                         NOT NULL VARCHAR2(10)
170    PLAN_NAME                        NOT NULL VARCHAR2(20)
171    PLAN_CODE                        NOT NULL NUMBER(38)
172    NUM_OF_PHONES                    NOT NULL NUMBER(38)
173    MONTHLY_MINUTES                  NOT NULL NUMBER(38)
174    ROLLOVER_MINUTES                 NOT NULL NUMBER(38)
175
176     INSERT INTO PLAN VALUES('101','VIP',41,1,1200,70);
177    INSERT INTO PLAN VALUES('102','SPORT',12,1,700,20);
178
179   SQL>  SELECT* FROM PLAN;
180
181   PLAN_KEY    PLAN_NAME            PLAN_CODE NUM_OF_PHONES MONTHLY_MINUTES
182   ---------- -------------------- ---------- ------------- ----------------
183   ROLLOVER_MINUTES
184   ----------------
185   101        VIP                         41             1             1200
186             70
187
188   102        SPORT                       12             1              700
189             20
190
191
192
193   SQL> DESC TIME;
194    Name                              Null?    Type
195    ---------------------------- -------- ----------------------
196    TIME_KEY                         NOT NULL VARCHAR2(10)
197    MONTH_NUMBER                     NOT NULL NUMBER(38)
198    MONTH                            NOT NULL VARCHAR2(20)
199    QUARTER                          NOT NULL NUMBER(38)
200    FISCAL_PERIOD                    NOT NULL NUMBER(38)
201    YEAR                             NOT NULL NUMBER(38)
202
203     INSERT INTO TIME VALUES('101',25,'APRIL',1,2,2021);
204    INSERT INTO TIME VALUES('102',27,'MAY',4,2,2021);
205
206   SQL> SELECT* FROM TIME;
207
```

```
TIME_KEY   MONTH_NUMBER MONTH                   QUARTER FISCAL_PERIOD       YEAR
---------- ------------ -------------------- ---------- ------------- ----------
101                  25 APRIL                         1             2       2021
102                  27 MAY                           4             2       2021

SQL> DESC SALES;
 Name                                      Null?    Type
 ----------------------------------------- -------- ------------------------------
 PLAN_MINUTES                              NOT NULL NUMBER
 OVERAGE_MINUTES                           NOT NULL NUMBER
 MNTHLY_ACCESS_CHARGES                     NOT NULL NUMBER
 MNTHLY_OVERAGE_CHARGES                    NOT NULL NUMBER
 VOICE_USAGE                               NOT NULL NUMBER
 DATA_USAGE                                NOT NULL VARCHAR2(10)
 CUSTOMER_KEY                              NOT NULL VARCHAR2(10)
 STATUS_KEY                                NOT NULL VARCHAR2(10)
 PLAN_KEY                                  NOT NULL VARCHAR2(10)
 TIME_KEY                                  NOT NULL VARCHAR2(10)
 INSERT INTO SALES VALUES(1200,100,300,989,5000,'550000KB','101','101','101','101');
 INSERT INTO SALES VALUES(500,300,50,579,50000,'70000000KB','102','102','102','102');


SQL>  SELECT* FROM SALES;

PLAN_MINUTES OVERAGE_MINUTES MNTHLY_ACCESS_CHARGES MNTHLY_OVERAGE_CHARGES
------------ --------------- --------------------- ----------------------
VOICE_USAGE DATA_USAGE CUSTOMER_K STATUS_KEY PLAN_KEY   TIME_KEY
----------- ---------- ---------- ---------- ---------- ----------
        1200             100                   300                    989
        5000 550000KB   101        101        101        101

         500             300                    50                    579
       50000 70000000KB 102        102        102        102
```