```sql
--STAR SCHEMA
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 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 CUSTOMER (
                CUSTOMER_KEY VARCHAR2(10) NOT NULL,
                CUSTOMER_NAME VARCHAR2(20) NOT NULL,
                CUSTOMER_CODE NUMBER NOT NULL,
                FAMILY_SIZE NUMBER NOT NULL,
                ADDRESS VARCHAR2(45) NOT NULL,
                STATE VARCHAR2(20) NOT NULL,
                ZIP NUMBER NOT NULL,
                CONSTRAINT CUSTOMER_PK PRIMARY KEY (CUSTOMER_KEY)
);


CREATE TABLE USAGE_FACTS (
                PLAN_MINUTES NUMBER NOT NULL,
                MNTHLY_ACCESS_CHARGES NUMBER NOT NULL,
                OVERAGE_MINUTES 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,
                TIME_KEY VARCHAR2(10) NOT NULL,
                PLAN_KEY VARCHAR2(10) NOT NULL
);


ALTER TABLE USAGE_FACTS ADD CONSTRAINT TIME_USAGE_FACTS_FK
FOREIGN KEY (TIME_KEY)
REFERENCES TIME (TIME_KEY)
NOT DEFERRABLE;

ALTER TABLE USAGE_FACTS ADD CONSTRAINT PLAN_USAGE_FACTS_FK
FOREIGN KEY (PLAN_KEY)
REFERENCES PLAN (PLAN_KEY)
NOT DEFERRABLE;
```

```
70    ALTER TABLE USAGE_FACTS ADD CONSTRAINT STATUS_USAGE_FACTS_FK
71    FOREIGN KEY (STATUS_KEY)
72    REFERENCES STATUS (STATUS_KEY)
73    NOT DEFERRABLE;
74
75    ALTER TABLE USAGE_FACTS ADD CONSTRAINT CUSTOMER_USAGE_FACTS_FK
76    FOREIGN KEY (CUSTOMER_KEY)
77    REFERENCES CUSTOMER (CUSTOMER_KEY)
78    NOT DEFERRABLE;
79
80    DESC CUSTOMER;
81     Name                     Null?    Type
82     ----------------------- -------- ----------------
83     CUSTOMER_KEY             NOT NULL VARCHAR2(10)
84     CUSTOMER_NAME            NOT NULL VARCHAR2(20)
85     CUSTOMER_CODE            NOT NULL NUMBER
86     FAMILY_SIZE              NOT NULL NUMBER
87     ADDRESS                  NOT NULL VARCHAR2(45)
88     STATE                    NOT NULL VARCHAR2(20)
89     ZIP                      NOT NULL NUMBER
90
91    INSERT INTO CUSTOMER VALUES('101','NISHI',11,5,'SAMARTHWADI','MAHARASHTRA',445001);
92    INSERT INTO CUSTOMER VALUES('102','NIDHI',21,9,'RAMNAGAR','MAHARASHTRA',440010);
93
94    SQL> SELECT* FROM CUSTOMER;
95
96    CUSTOMER_K CUSTOMER_NAME        CUSTOMER_CODE FAMILY_SIZE
97    ---------- -------------------- ------------- -----------
98    ADDRESS                                       STATE                         ZIP
99    -------------------------------------------- -------------------- ----------
100   101        NISHI                           11           5
101   SAMARTHWADI                                   MAHARASHTRA                445001
102
103   102        NIDHI                           21           9
104   RAMNAGAR                                      MAHARASHTRA                440010
105
106
107   SQL> DESC STATUS;
108    Name                     Null?    Type
109    ----------------------- -------- ----------------
110    STATUS_KEY              NOT NULL VARCHAR2(10)
111    NEW_CUSTOMER            NOT NULL VARCHAR2(20)
112    NEW_ADDRESS             NOT NULL VARCHAR2(45)
113    PAYMENT_OVERDUE         NOT NULL NUMBER
114    CLOSED_THIS_PERIOD      NOT NULL NUMBER
115
116     INSERT INTO STATUS VALUES('101','MEGHA','NARENDRANAGAR',2000,1997);
117     INSERT INTO STATUS VALUES('102','SAKSHI','VASHI',20,2000);
118
119   SQL> SELECT* FROM STATUS;
120
121   STATUS_KEY NEW_CUSTOMER         NEW_ADDRESS
122   ---------- -------------------- ---------------------------------------------
123   PAYMENT_OVERDUE CLOSED_THIS_PERIOD
124   --------------- ------------------
125   101        MEGHA                NARENDRANAGAR
126             2000                  1997
127
128   102        SAKSHI               VASHI
129               20                  2000
130
131   SQL> DESC PLAN;
132    Name                        Null?    Type
133    -------------------------- -------- --------------------
134    PLAN_KEY                    NOT NULL VARCHAR2(10)
135    PLAN_NAME                   NOT NULL VARCHAR2(20)
136    PLAN_CODE                   NOT NULL NUMBER
137    NUM_OF_PHONES               NOT NULL NUMBER
138    MONTHLY_MINUTES             NOT NULL NUMBER
```

```
139      ROLLOVER_MINUTES                 NOT NULL NUMBER
140
141      INSERT INTO PLAN VALUES('101','VIP',41,1,1200,70);
142      INSERT INTO PLAN VALUES('102','SPORT',12,1,700,20);
143
144    SQL> SELECT* FROM PLAN;
145
146    PLAN_KEY    PLAN_NAME              PLAN_CODE NUM_OF_PHONES MONTHLY_MINUTES
147    ---------- -------------------- ---------- ------------- ---------------
148    ROLLOVER_MINUTES
149    ----------------
150    101         VIP                          41             1            1200
151              70
152
153    102         SPORT                        12             1             700
154              20
155    SQL> DESC TIME;
156     Name                            Null?    Type
157     ----------------------------- -------- --------------------
158     TIME_KEY                       NOT NULL VARCHAR2(10)
159     MONTH_NUMBER                   NOT NULL NUMBER
160     MONTH                          NOT NULL VARCHAR2(20)
161     QUARTER                        NOT NULL NUMBER
162     FISCAL_PERIOD                  NOT NULL NUMBER
163     YEAR                           NOT NULL NUMBER
164
165     INSERT INTO TIME VALUES('101',25,'APRIL',1,2,2021);
166     INSERT INTO TIME VALUES('102',27,'MAY',4,2,2021);
167
168    SQL> SELECT* FROM TIME;
169
170    TIME_KEY    MONTH_NUMBER MONTH                QUARTER FISCAL_PERIOD     YEAR
171    ---------- ------------- -------------------- ---------- ------------- ----------
172    T101                   3 MARCH                         1             3       2020
173    T102                   5 MAY                           2             4       2020
174
175
176    SQL> DESC USAGE_FACTS;
177     Name                            Null?    Type
178     ----------------------------- -------- --------------------
179     PLAN_MINUTES                   NOT NULL NUMBER
180     MNTHLY_ACCESS_CHARGES          NOT NULL NUMBER
181     OVERAGE_MINUTES                NOT NULL NUMBER
182     MNTHLY_OVERAGE_CHARGES         NOT NULL NUMBER
183     VOICE_USAGE                    NOT NULL NUMBER
184     DATA_USAGE                     NOT NULL VARCHAR2(10)
185     CUSTOMER_KEY                   NOT NULL VARCHAR2(10)
186     STATUS_KEY                     NOT NULL VARCHAR2(10)
187     TIME_KEY                       NOT NULL VARCHAR2(10)
188     PLAN_KEY                       NOT NULL VARCHAR2(10)
189
190     INSERT INTO USAGE_FACTS
       VALUES(1200,100,300,989,5000,'550000KB','101','101','101','101');
191     INSERT INTO USAGE_FACTS
       VALUES(500,300,50,579,50000,'70000000KB','102','102','102','102');
192
193    SQL> SELECT* FROM USAGE_FACTS;
194
195    PLAN_MINUTES MNTHLY_ACCESS_CHARGES OVERAGE_MINUTES MNTHLY_OVERAGE_CHARGES
196    ------------ --------------------- --------------- ----------------------
197    VOICE_USAGE DATA_USAGE CUSTOMER_K STATUS_KEY TIME_KEY   PLAN_KEY
198    ----------- ---------- ---------- ---------- ---------- ----------
199          1200                   100             300                    989
200       5000 550000KB   101        101        101        101
201
202           500                   300              50                    579
203      50000 70000000KB 102        102        102        102
204
```