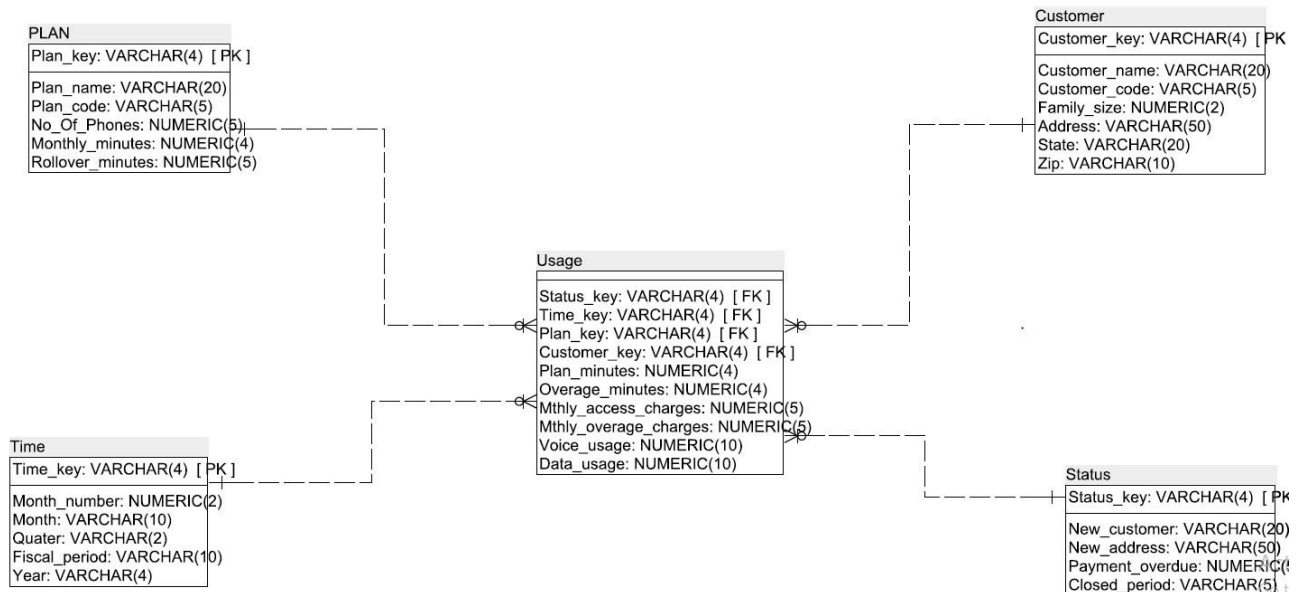


Practical No 1:-

Star Schema:-



```

CREATE TABLE Time (
    Time_key VARCHAR2(4) NOT NULL,
    Month_number NUMBER(2) NOT NULL,
    Month VARCHAR2(10) NOT NULL,
    Quarter VARCHAR2(2) NOT NULL,
    Fiscal_period VARCHAR2(10) NOT NULL,
    Year VARCHAR2(4) NOT NULL,
    CONSTRAINT TIME_PK PRIMARY KEY (Time_key)
);
  
```

```

CREATE TABLE Status (
    Status_key VARCHAR2(4) NOT NULL,
    New_customer VARCHAR2(20) NOT NULL,
    New_address VARCHAR2(50) NOT NULL,
    Payment_overdue NUMBER(5) NOT NULL,
    Closed_period VARCHAR2(5) NOT NULL,
    CONSTRAINT STATUS_PK PRIMARY KEY (Status_key)
);
  
```

```

CREATE TABLE Customer (
    Customer_key VARCHAR2(4) NOT NULL,
    Customer_name VARCHAR2(20) NOT NULL,
    Customer_code VARCHAR2(5) NOT NULL,
    Family_size NUMBER(2) NOT NULL,
    Address VARCHAR2(50) NOT NULL,
    State VARCHAR2(20) NOT NULL,
    Zip VARCHAR2(10) NOT NULL,
    CONSTRAINT CUSTOMER_PK PRIMARY KEY (Customer_key)
);
  
```

```

CREATE TABLE PLAN (
    Plan_key VARCHAR2(4) NOT NULL,
    Plan_name VARCHAR2(20) NOT NULL,
    Plan_code VARCHAR2(5) NOT NULL,
    No_Of_Phones NUMBER(5) NOT NULL,
    Monthly_minutes NUMBER(4) NOT NULL,
    Rollover_minutes NUMBER(5) NOT NULL,
    CONSTRAINT PLAN_PK PRIMARY KEY (Plan_key)
);

```

```

CREATE TABLE Usage (
    Usage_key VARCHAR2(4) NOT NULL,
    Status_key VARCHAR2(4) NOT NULL,
    Time_key VARCHAR2(4) NOT NULL,
    Plan_key VARCHAR2(4) NOT NULL,
    Customer_key VARCHAR2(4) NOT NULL,
    Plan_minutes NUMBER(4) NOT NULL,
    Overage_minutes NUMBER(4) NOT NULL,
    Mthly_access_charges NUMBER(5) NOT NULL,
    Mthly_overage_charges NUMBER(5) NOT NULL,
    Voice_usage NUMBER(10) NOT NULL,
    Data_usage NUMBER(10) NOT NULL,
    CONSTRAINT USAGE_PK PRIMARY KEY (Usage_key)
);

```

```

ALTER TABLE Usage ADD CONSTRAINT TIME_USAGE_FK
FOREIGN KEY (Time_key)
REFERENCES Time (Time_key)
NOT DEFERRABLE;

```

```

ALTER TABLE Usage ADD CONSTRAINT STATUS_USAGE_FK
FOREIGN KEY (Status_key)
REFERENCES Status (Status_key)
NOT DEFERRABLE;

```

```

ALTER TABLE Usage ADD CONSTRAINT CUSTOMER_USAGE_FK
FOREIGN KEY (Customer_key)
REFERENCES Customer (Customer_key)
NOT DEFERRABLE;

```

```

ALTER TABLE Usage ADD CONSTRAINT PLAN_USAGE_FK
FOREIGN KEY (Plan_key)
REFERENCES PLAN (Plan_key)
NOT DEFERRABLE;

```

```

insert into plan values('P100','Diwali_dhamaka','dd501',500,1000,9000);
insert into plan values('P101','Holi Special','hs101',200,6000,8000);

```

```

insert into time values('T100',11,'November',4,'5','1998');
insert into time values('T101',5,'May',2,'6','2011');

```

```

insert into customer values ('C100','Gaurav','gg100',15,'KT Nagar
Nagpur','Maharashtra','Nagpur');

```

```
insert into customer values ('C101','Harsh','hg100',20,'KT Nagar Nagpur','Maharashtra','Nagpur');
```

```
insert into status values('S100',Yash,Ram Nagar Nagpur',5000,10);
```

```
insert into status values('S101',Pravin,'Manish Nagar Nagpur',10000,1);
```

```
insert into usage
```

```
values('U100','S100','T100','P100','C100',2000,5000,1000,3000,600000,800000);
```

```
insert into usage
```

```
values('U101','S101','T101','P101','C101',8000,6000,5000,8000,50000,900000);
```

```
select u.usage_key,t.month_number,p.plan_name,c.customer_name,s.new_customer
from usage u,time t,plan p,status s,customer c
where u.status_key=s.status_key and
u.plan_key=p.plan_key and
u.time_key=t.time_key and
u.customer_key=c.customer_key;
```

Snowflake Schema:-

