--Create airport\_dim

create table airline\_dim as

(select al.Airlineid, al.name, al.Country, al.active,

round(1/ count(av.serviceid),2) as WeightFactor,

listagg(av.serviceid,'\_') within group (order by av.serviceid) as servicegrouplist

from airlines1 al, Airline\_Services1 av, Provides1 p

where al.airlineid = p.airlineid

And p.serviceid = av.serviceid

group by al.Airlineid, al.name, al.Country, al.active);

--Create provides\_bridge

create table Provides\_Bridge as

select distinct \* from provides1;

--Create service\_dim

create table Service\_dim as

select distinct \* from airline\_services1;

--Create source\_airport\_dim

create table Source\_airport\_dim as

select \* from airports1;

--Create dest\_airport\_dim

create table Dest\_airport\_dim as

select \* from airports1;

--Create Routes Temporary Fact Table

create table temp\_route\_fact as

select distinct sourceairportid, destairportid, r.AIRLINEID, r.routeid, distance, servicecost

from routes1 r, airlines1 al

where r.airlineid = al.airlineid;

--Alter Temporary Routes Fact to add a column for List\_Agg

alter table temp\_route\_fact add (service\_list varchar2(50));

--Update temporary\_fact with List Agg

update temp\_route\_fact t1

set t1.service\_list = (select t2.SERVICEGROUPLIST from (select al.Airlineid,

listagg(av.serviceid,'\_') within group (order by av.serviceid) as servicegrouplist

from airlines1 al, Airline\_Services1 av, Provides1 p

where al.airlineid = p.airlineid

And p.serviceid = av.serviceid

group by al.Airlineid) t2 where t1.AIRLINEID=t2.AIRLINEID)

where t1.AIRLINEID IN ( select t2.AIRLINEID from (select al.Airlineid,

listagg(av.serviceid,'\_') within group (order by av.serviceid) as servicegrouplist

from airlines1 al, Airline\_Services1 av, Provides1 p

where al.airlineid = p.airlineid

And p.serviceid = av.serviceid

group by al.Airlineid) t2 where t1.AIRLINEID=t2.AIRLINEID);

--Creates route\_fact table

create table route\_fact

as (select sourceairportid, destairportid, service\_list, count(routeid) total\_routes, sum(distance) as total\_route\_distance, sum(servicecost) as total\_service\_cost

from temp\_route\_fact

group by sourceairportid, destairportid, service\_list);

--Create travel class dim

create table travel\_class\_dim (

travel\_class\_id number not null,

travel\_class\_type varchar2(50)

);

insert into travel\_class\_dim values (1, 'First Class');

insert into travel\_class\_dim values (2, 'Business Class');

insert into travel\_class\_dim values (3, 'Economy Class');

--Create passenger\_type\_dim

create table passenger\_type\_dim (

passenger\_type\_id number not null,

passenger\_type varchar2(50));

insert into passenger\_type\_dim values (1,'Children');

insert into passenger\_type\_dim values (2,'Teenager');

insert into passenger\_type\_dim values (3,'Young Adult');

insert into passenger\_type\_dim values (4,'Middle Adult');

insert into passenger\_type\_dim values (5,'Senior Adult');

--Create Sequence for Nationality\_Dim

CREATE SEQUENCE nat\_seq

START WITH 1

MINVALUE 1

INCREMENT BY 1

nocycle;

--Create nationality\_dim

create table nationality\_dim as

select distinct nationality from passengers1;

alter table nationality\_dim add (natid number(3));

update nationality\_dim

set natid = nat\_seq.nextval;

--Create flight\_type\_dim

create table flight\_type\_dim (

flight\_type\_id number not null,

flight\_type varchar2(50));

insert into flight\_type\_dim values (1, 'Domestic');

insert into flight\_type\_dim values (2, 'International');

--Create flight\_distance\_dim

create table flight\_distance\_dim (

flight\_ditance\_id number not null,

flight\_description varchar2(50));

insert into flight\_distance\_dim values (1,'Small');

insert into flight\_distance\_dim values (2,'Medium');

insert into flight\_distance\_dim values (3,'Large');

insert into flight\_distance\_dim values (4,'Very Large');

--Create Time\_Dim

create table time\_dim as

select

to\_char(flightdate,'yyyy') || to\_char(flightdate,'mm') || to\_char(flightdate,'dd') as time\_id,

to\_char(flightdate, 'Day') as dayname,

to\_char(flightdate, 'Mon') as month,

to\_char(flightdate, 'yyyy') as yearnumber

from (select distinct flightdate from flights1);

--Create Temporary Fact

create table Transactions\_Temp\_Fact as

select a.AIRPORTID as source\_airport\_id, a.country as source\_country, b.airportid as dest\_airport\_id, b.COUNTRY As dest\_country, al.airlineid, r.distance, f.flightdate, f.fare, t.flightid, t.totalpaid, p.nationality, p.age,a.COUNTRY as sourceCountry,b.country as destCountry

from routes1 r, airports1 a, airports1 b, flights1 f, transactions1 t, passengers1 p, AIRLINES1 al

where r.sourceairportid = a.airportid

and r.destairportid = b.airportid

and f.routeid = r.routeid

and t.passid = p.passid

and f.flightid = t.flightid

and al.airlineid = r.airlineid

and f.fare > 0

and p.age > 0;

--Add nationality id

alter table Transactions\_Temp\_Fact add natid number(3);

update Transactions\_Temp\_Fact tf

set natid = (select natid from nationality\_dim nd where nd.nationality = tf.nationality);

--Add passenger\_type\_id

alter table Transactions\_Temp\_Fact add passenger\_type\_id number;

update Transactions\_Temp\_Fact

set passenger\_type\_id = 1

where age < 11;

update Transactions\_Temp\_Fact

set passenger\_type\_id = 2

where age between 11 and 17;

update Transactions\_Temp\_Fact

set passenger\_type\_id = 3

where age between 18 and 35;

update Transactions\_Temp\_Fact

set passenger\_type\_id = 4

where age between 36 and 60;

update Transactions\_Temp\_Fact

set passenger\_type\_id = 5

where age > 60;

--Add flight\_distance\_id

alter table Transactions\_Temp\_Fact add flight\_distance\_id number;

update Transactions\_Temp\_Fact

set flight\_distance\_id = 1

where distance < 1200;

update Transactions\_Temp\_Fact

set flight\_distance\_id = 2

where distance between 1200 and 4000;

update Transactions\_Temp\_Fact

set flight\_distance\_id = 3

where distance between 4001 and 10000;

update Transactions\_Temp\_Fact

set flight\_distance\_id = 4

where distance > 10000;

--Add Time ID

alter table transactions\_temp\_fact add (time\_id varchar2(8));

update transactions\_temp\_fact

set time\_id = to\_char(flightdate,'yyyy') || to\_char(flightdate,'mm') || to\_char(flightdate,'dd');

--Add travel\_class\_id

alter table Transactions\_Temp\_Fact add travel\_class\_id number;

update Transactions\_Temp\_Fact

set travel\_class\_id = 1

where TotalPaid >= (1.8\*Fare);

update Transactions\_Temp\_Fact

set travel\_class\_id = 2

where (1.3\*Fare) <= TotalPaid

And TotalPaid < (1.8\*Fare);

update Transactions\_Temp\_Fact

set travel\_class\_id = 3

where TotalPaid < (1.3\*Fare);

--Add Flight\_Type\_ID

alter table Transactions\_Temp\_Fact add flight\_type\_id number;

update Transactions\_Temp\_Fact

set flight\_type\_id = 1

where SOURCE\_country = DEST\_country;

update Transactions\_Temp\_Fact

set flight\_type\_id = 2

where SOURCE\_country != DEST\_country;

--Create Transaction\_Fact

create table Transaction\_Fact as

select SOURCE\_AIRPORT\_ID,DEST\_AIRPORT\_ID,airlineid,natid, passenger\_type\_id, flight\_type\_id, flight\_distance\_id, time\_id, travel\_class\_id, count(flightid) as total\_number\_\_Transactions, sum(totalpaid) as total\_total\_paid, sum(fare) as total\_fare, sum(age) as total\_age, sum(distance) as total\_travel\_distance

from Transactions\_Temp\_Fact

Group By SOURCE\_AIRPORT\_ID,DEST\_AIRPORT\_ID,airlineid,natid, passenger\_type\_id, flight\_type\_id, flight\_distance\_id, time\_id, travel\_class\_id;