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-- site: Oracle Database 11g

-- type: Oracle Database 11g

-- predefined type, no DDL - MDSYS.SDO\_GEOMETRY

-- predefined type, no DDL - XMLTYPE

CREATE TABLE ml\_oz\_airline (

airid NUMBER(6) NOT NULL,

airlinename VARCHAR2(30) NOT NULL,

mainhub VARCHAR2(50) NOT NULL,

headquarter VARCHAR2(30) NOT NULL,

aircountry VARCHAR2(30) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_airline.airid IS

'UNique ID assigned to each airline';

COMMENT ON COLUMN ml\_oz\_airline.airlinename IS

'the name of the airline';

COMMENT ON COLUMN ml\_oz\_airline.mainhub IS

'the main hub of the airlines';

COMMENT ON COLUMN ml\_oz\_airline.headquarter IS

'the headquarter city of the airlines';

COMMENT ON COLUMN ml\_oz\_airline.aircountry IS

'the country of the airlines main hub';

ALTER TABLE ml\_oz\_airline ADD CONSTRAINT ml\_oz\_airline\_pk PRIMARY KEY ( airid );

CREATE TABLE ml\_oz\_airline\_model (

qty NUMBER(4) NOT NULL,

airid NUMBER(6) NOT NULL,

modelid NUMBER(6) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_airline\_model.qty IS

'The Quantity airplanes model that ariline have';

ALTER TABLE ml\_oz\_airline\_model ADD CONSTRAINT ml\_oz\_airline\_model\_pk PRIMARY KEY ( airid,

modelid );

CREATE TABLE ml\_oz\_airmodel (

modelid NUMBER(6) NOT NULL,

modelname VARCHAR2(20) NOT NULL,

manufacturer VARCHAR2(30) NOT NULL,

numofengines NUMBER(2) NOT NULL,

numoffleet NUMBER(4) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_airmodel.modelid IS

'unique ID assigned to each model';

COMMENT ON COLUMN ml\_oz\_airmodel.modelname IS

'the model of the aircraft';

COMMENT ON COLUMN ml\_oz\_airmodel.manufacturer IS

'the manufacturer of the air craft';

COMMENT ON COLUMN ml\_oz\_airmodel.numofengines IS

'the number of the engines in the aircraft';

COMMENT ON COLUMN ml\_oz\_airmodel.numoffleet IS

'the number of the fleets';

ALTER TABLE ml\_oz\_airmodel ADD CONSTRAINT ml\_oz\_airmodel\_pk PRIMARY KEY ( modelid );

CREATE TABLE ml\_oz\_airport (

airportcode CHAR(3) NOT NULL,

airportname VARCHAR2(30) NOT NULL,

airportcity VARCHAR2(30) NOT NULL,

airportcountry VARCHAR2(30) NOT NULL,

airporttype VARCHAR2(30) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_airport.airportcode IS

'the aircode of the airport';

COMMENT ON COLUMN ml\_oz\_airport.airportname IS

'the name of the airport';

COMMENT ON COLUMN ml\_oz\_airport.airportcity IS

'the city of the airport';

COMMENT ON COLUMN ml\_oz\_airport.airportcountry IS

'the country of the airport';

COMMENT ON COLUMN ml\_oz\_airport.airporttype IS

'type of the airport';

ALTER TABLE ml\_oz\_airport ADD CONSTRAINT ml\_oz\_airport\_pk PRIMARY KEY ( airportcode );

CREATE TABLE ml\_oz\_ba (

passengerid NUMBER(6) NOT NULL,

baname VARCHAR2(30) NOT NULL,

webaddress VARCHAR2(30) NOT NULL,

phonenumber VARCHAR2(12) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_ba.passengerid IS

'the unqiue ID assigned to each passenger ';

COMMENT ON COLUMN ml\_oz\_ba.baname IS

'The name of the booking agent';

ALTER TABLE ml\_oz\_ba ADD CONSTRAINT ml\_oz\_ba\_pk PRIMARY KEY ( passengerid );

CREATE TABLE ml\_oz\_customer (

passengerid NUMBER(6) NOT NULL,

street VARCHAR2(50) NOT NULL,

city VARCHAR2(30) NOT NULL,

state VARCHAR2(20) NOT NULL,

zipcode NUMBER(10) NOT NULL,

country VARCHAR2(30) NOT NULL,

email VARCHAR2(50) NOT NULL,

contactnumber VARCHAR2(22) NOT NULL,

numofpassenger NUMBER(3) NOT NULL,

efname VARCHAR2(30) NOT NULL,

elname VARCHAR2(30) NOT NULL,

econtact VARCHAR2(22) NOT NULL,

customertype CHAR(1) NOT NULL

);

ALTER TABLE ml\_oz\_customer

ADD CONSTRAINT ch\_inh\_ml\_oz\_customer CHECK ( customertype IN ( 'B', 'C', 'M' ) );

COMMENT ON COLUMN ml\_oz\_customer.passengerid IS

'the unqiue ID assigned to each passenger ';

COMMENT ON COLUMN ml\_oz\_customer.street IS

'street and apartment number of the customers'' address';

COMMENT ON COLUMN ml\_oz\_customer.city IS

'Customers'' address city name';

COMMENT ON COLUMN ml\_oz\_customer.state IS

'State name of the customer''s address';

COMMENT ON COLUMN ml\_oz\_customer.zipcode IS

'zip code of the customer adress.';

COMMENT ON COLUMN ml\_oz\_customer.country IS

'The country of the customers'' address';

COMMENT ON COLUMN ml\_oz\_customer.email IS

'the email of customer';

COMMENT ON COLUMN ml\_oz\_customer.contactnumber IS

'customer''s contact number including country code';

COMMENT ON COLUMN ml\_oz\_customer.numofpassenger IS

'number of passenger that customer travel with including her(him)self';

COMMENT ON COLUMN ml\_oz\_customer.efname IS

'customer emergency contact first name';

COMMENT ON COLUMN ml\_oz\_customer.elname IS

'customer emergency contact last name';

COMMENT ON COLUMN ml\_oz\_customer.econtact IS

'customer emergency contact number';

ALTER TABLE ml\_oz\_customer ADD CONSTRAINT ml\_oz\_customer\_pk PRIMARY KEY ( passengerid );

CREATE TABLE ml\_oz\_flight (

flightid NUMBER(6) NOT NULL,

dairport CHAR(3) NOT NULL,

aairport CHAR(3) NOT NULL,

departuretime TIMESTAMP WITH TIME ZONE NOT NULL,

arrivaltime TIMESTAMP WITH TIME ZONE NOT NULL,

airid NUMBER(6) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_flight.flightid IS

'the unqiue ID assigned to each flight';

COMMENT ON COLUMN ml\_oz\_flight.dairport IS

'flight departure airport';

COMMENT ON COLUMN ml\_oz\_flight.aairport IS

'flight Arrival Airport';

COMMENT ON COLUMN ml\_oz\_flight.departuretime IS

'departure time of the flight ';

COMMENT ON COLUMN ml\_oz\_flight.arrivaltime IS

'flight arrival time';

ALTER TABLE ml\_oz\_flight ADD CONSTRAINT ml\_oz\_flight\_pk PRIMARY KEY (flightid);

CREATE TABLE ml\_oz\_insuranceplan (

planid NUMBER(6) NOT NULL,

planname VARCHAR2(30) NOT NULL,

description VARCHAR2(200) NOT NULL,

cost NUMBER(7, 2) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_insuranceplan.planid IS

'Unique id assigned to each plan';

COMMENT ON COLUMN ml\_oz\_insuranceplan.planname IS

'the name of the insurance plan';

COMMENT ON COLUMN ml\_oz\_insuranceplan.description IS

'the description of the insurance plan';

COMMENT ON COLUMN ml\_oz\_insuranceplan.cost IS

'the cost of the insurance plan';

ALTER TABLE ml\_oz\_insuranceplan ADD CONSTRAINT ml\_oz\_insuranceplan\_pk PRIMARY KEY ( planid );

CREATE TABLE ml\_oz\_invoice (

invoicenumber NUMBER(6) NOT NULL,

inovicedate DATE NOT NULL,

invoiceamount NUMBER(8, 2) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_invoice.invoicenumber IS

'the unique invoice number assigned to each invoice';

COMMENT ON COLUMN ml\_oz\_invoice.inovicedate IS

'the date of the invoice start';

COMMENT ON COLUMN ml\_oz\_invoice.invoiceamount IS

'the invoice amount of the invoice';

ALTER TABLE ml\_oz\_invoice ADD CONSTRAINT ml\_oz\_invoice\_pk PRIMARY KEY ( invoicenumber );

CREATE TABLE ml\_oz\_member (

passengerid NUMBER(6) NOT NULL,

membershipname VARCHAR2(30) NOT NULL,

assocaitedairline VARCHAR2(30) NOT NULL,

mstartdate DATE NOT NULL,

menddate DATE

);

COMMENT ON COLUMN ml\_oz\_member.passengerid IS

'the unqiue ID assigned to each passenger ';

COMMENT ON COLUMN ml\_oz\_member.membershipname IS

'the name of the membership';

ALTER TABLE ml\_oz\_member ADD CONSTRAINT ml\_oz\_member\_pk PRIMARY KEY ( passengerid );

CREATE TABLE ml\_oz\_passenger (

passengerid NUMBER(6) NOT NULL,

pfname VARCHAR2(30) NOT NULL,

plname VARCHAR2(30) NOT NULL,

pbirthdate DATE NOT NULL,

pnationality VARCHAR2(30) NOT NULL,

pgender CHAR(1) NOT NULL,

passportnumber VARCHAR2(9) NOT NULL,

pexpirydate DATE NOT NULL,

planid NUMBER(6),

passengertype CHAR(1) NOT NULL

);

ALTER TABLE ml\_oz\_passenger

ADD CONSTRAINT ch\_inh\_ml\_oz\_passenger CHECK ( passengertype IN ( 'B', 'C', 'M', 'P' ) );

COMMENT ON COLUMN ml\_oz\_passenger.passengerid IS

'the unqiue ID assigned to each passenger ';

COMMENT ON COLUMN ml\_oz\_passenger.pfname IS

'passenger first name';

COMMENT ON COLUMN ml\_oz\_passenger.plname IS

'the last name of the passenger ';

COMMENT ON COLUMN ml\_oz\_passenger.pbirthdate IS

'passenger birthday';

COMMENT ON COLUMN ml\_oz\_passenger.pnationality IS

'the nationality of the passenger';

COMMENT ON COLUMN ml\_oz\_passenger.pgender IS

'the gender of the passenger, enter F for female, enter M for male';

COMMENT ON COLUMN ml\_oz\_passenger.pexpirydate IS

'the expiration date of the passport';

ALTER TABLE ml\_oz\_passenger ADD CONSTRAINT ml\_oz\_passenger\_pk PRIMARY KEY ( passengerid );

CREATE TABLE ml\_oz\_passenger\_flight (

mealplan VARCHAR2(30) NOT NULL,

cabinclass VARCHAR2(30) NOT NULL,

passengerid NUMBER(6) NOT NULL,

flightid NUMBER(6) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_passenger\_flight.mealplan IS

'passenger meal plan choice';

COMMENT ON COLUMN ml\_oz\_passenger\_flight.cabinclass IS

'passenger cabin class for the flight';

ALTER TABLE ml\_oz\_passenger\_flight ADD CONSTRAINT ml\_oz\_passenger\_flight\_pk PRIMARY KEY ( passengerid,

flightid );

CREATE TABLE ml\_oz\_passenger\_request (

passengerid NUMBER(6) NOT NULL,

specialrequestid NUMBER(6) NOT NULL

);

ALTER TABLE ml\_oz\_passenger\_request ADD CONSTRAINT ml\_oz\_passenger\_request\_pk PRIMARY KEY ( passengerid,

specialrequestid );

CREATE TABLE ml\_oz\_payment (

paymentid NUMBER(6) NOT NULL,

paymentamount NUMBER(8, 2) NOT NULL,

paymentmethod VARCHAR2(30) NOT NULL,

cardnumber NUMBER(16) NOT NULL,

fnameonc VARCHAR2(30) NOT NULL,

lnameonc VARCHAR2(30) NOT NULL,

expirationdate DATE NOT NULL,

invoicenumber NUMBER(6) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_payment.paymentid IS

'the unique ID assigned to each payment';

COMMENT ON COLUMN ml\_oz\_payment.paymentamount IS

'the payment amount of the payment';

COMMENT ON COLUMN ml\_oz\_payment.paymentmethod IS

'the method of the payment(credit card etc)';

COMMENT ON COLUMN ml\_oz\_payment.cardnumber IS

'the card number of the payment card';

COMMENT ON COLUMN ml\_oz\_payment.fnameonc IS

'first name of the cardholder';

COMMENT ON COLUMN ml\_oz\_payment.lnameonc IS

'the last name of the card holder';

COMMENT ON COLUMN ml\_oz\_payment.expirationdate IS

'expiration date of the card';

ALTER TABLE ml\_oz\_payment ADD CONSTRAINT ml\_oz\_payment\_pk PRIMARY KEY ( paymentid );

CREATE TABLE ml\_oz\_purchase (

purchaseid NUMBER(6) NOT NULL,

coveragefname VARCHAR2(30) NOT NULL,

coveragelname VARCHAR2(30) NOT NULL,

planid NUMBER(6) NOT NULL,

invoicenumber NUMBER(6) NOT NULL,

flightid NUMBER(6) NOT NULL,

passengerid NUMBER(6) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_purchase.purchaseid IS

'THE UNIQUE ID assigned to each customer';

COMMENT ON COLUMN ml\_oz\_purchase.coveragefname IS

'the first name of the coverge passenger';

COMMENT ON COLUMN ml\_oz\_purchase.coveragelname IS

'the last name of the coverage passenger';

CREATE UNIQUE INDEX ml\_oz\_purchase\_\_idx ON

ml\_oz\_purchase (

planid

ASC );

ALTER TABLE ml\_oz\_purchase ADD CONSTRAINT ml\_oz\_purchase\_pk PRIMARY KEY ( purchaseid );

CREATE TABLE ml\_oz\_specialrequest (

specialrequestid NUMBER(6) NOT NULL,

specialrequestname VARCHAR2(30) NOT NULL

);

COMMENT ON COLUMN ml\_oz\_specialrequest.specialrequestid IS

'the unique ID assigned to each special request';

COMMENT ON COLUMN ml\_oz\_specialrequest.specialrequestname IS

'the name of the special request';

ALTER TABLE ml\_oz\_specialrequest ADD CONSTRAINT ml\_oz\_specialrequest\_pk PRIMARY KEY ( specialrequestid );

ALTER TABLE ml\_oz\_airline\_model

ADD CONSTRAINT fk\_airline\_model\_airline FOREIGN KEY ( airid )

REFERENCES ml\_oz\_airline ( airid );

ALTER TABLE ml\_oz\_airline\_model

ADD CONSTRAINT fk\_airline\_model\_airmodel FOREIGN KEY ( modelid )

REFERENCES ml\_oz\_airmodel ( modelid );

ALTER TABLE ml\_oz\_ba

ADD CONSTRAINT fk\_ba\_customer FOREIGN KEY ( passengerid )

REFERENCES ml\_oz\_customer ( passengerid );

ALTER TABLE ml\_oz\_customer

ADD CONSTRAINT fk\_customer\_passenger FOREIGN KEY ( passengerid )

REFERENCES ml\_oz\_passenger ( passengerid );

ALTER TABLE ml\_oz\_flight

ADD CONSTRAINT fk\_flight\_\_arrivalairport FOREIGN KEY ( dairport )

REFERENCES ml\_oz\_airport ( airportcode );

ALTER TABLE ml\_oz\_flight

ADD CONSTRAINT fk\_flight\_airline FOREIGN KEY ( airid )

REFERENCES ml\_oz\_airline ( airid );

ALTER TABLE ml\_oz\_flight

ADD CONSTRAINT fk\_flight\_departureairport FOREIGN KEY ( aairport )

REFERENCES ml\_oz\_airport ( airportcode );

ALTER TABLE ml\_oz\_passenger\_flight

ADD CONSTRAINT fk\_flight\_passenger FOREIGN KEY ( passengerid )

REFERENCES ml\_oz\_passenger ( passengerid );

ALTER TABLE ml\_oz\_member

ADD CONSTRAINT fk\_member\_customer FOREIGN KEY ( passengerid )

REFERENCES ml\_oz\_customer ( passengerid );

ALTER TABLE ml\_oz\_passenger\_flight

ADD CONSTRAINT fk\_passenger\_flight FOREIGN KEY ( flightid )

REFERENCES ml\_oz\_flight ( flightid );

ALTER TABLE ml\_oz\_passenger

ADD CONSTRAINT fk\_passenger\_insuranceplan FOREIGN KEY ( planid )

REFERENCES ml\_oz\_insuranceplan ( planid );

ALTER TABLE ml\_oz\_passenger\_request

ADD CONSTRAINT fk\_passenger\_request FOREIGN KEY ( specialrequestid )

REFERENCES ml\_oz\_specialrequest ( specialrequestid );

ALTER TABLE ml\_oz\_payment

ADD CONSTRAINT fk\_payment\_invoice FOREIGN KEY ( invoicenumber )

REFERENCES ml\_oz\_invoice ( invoicenumber );

ALTER TABLE ml\_oz\_purchase

ADD CONSTRAINT fk\_purchase\_insuranceplan FOREIGN KEY ( planid )

REFERENCES ml\_oz\_insuranceplan ( planid );

ALTER TABLE ml\_oz\_purchase

ADD CONSTRAINT fk\_purchase\_invoice FOREIGN KEY ( invoicenumber )

REFERENCES ml\_oz\_invoice ( invoicenumber );

ALTER TABLE ml\_oz\_passenger\_request

ADD CONSTRAINT fk\_request\_passenger FOREIGN KEY ( passengerid )

REFERENCES ml\_oz\_passenger ( passengerid );

CREATE OR REPLACE TRIGGER arc\_fkarc\_3\_ml\_oz\_member BEFORE

INSERT OR UPDATE OF passengerid ON ml\_oz\_member

FOR EACH ROW

DECLARE

d CHAR(1);

BEGIN

SELECT

a.customertype

INTO d

FROM

ml\_oz\_customer a

WHERE

a.passengerid = :new.passengerid;

IF ( d IS NULL OR d <> 'M' ) THEN

raise\_application\_error(-20223,

'FK FK\_MEMBER\_CUSTOMER in Table ML\_OZ\_MEMBER violates Arc constraint on Table ML\_OZ\_CUSTOMER - discriminator column CustomerType doesn''t have value ''M''');

END IF;

EXCEPTION

WHEN no\_data\_found THEN

NULL;

WHEN OTHERS THEN

RAISE;

END;

/

CREATE OR REPLACE TRIGGER arc\_fkarc\_3\_ml\_oz\_ba BEFORE

INSERT OR UPDATE OF passengerid ON ml\_oz\_ba

FOR EACH ROW

DECLARE

d CHAR(1);

BEGIN

SELECT

a.customertype

INTO d

FROM

ml\_oz\_customer a

WHERE

a.passengerid = :new.passengerid;

IF ( d IS NULL OR d <> 'B' ) THEN

raise\_application\_error(-20223,

'FK FK\_BA\_CUSTOMER in Table ML\_OZ\_BA violates Arc constraint on Table ML\_OZ\_CUSTOMER - discriminator column CustomerType doesn''t have value ''B''');

END IF;

EXCEPTION

WHEN no\_data\_found THEN

NULL;

WHEN OTHERS THEN

RAISE;

END;

/

-- Oracle SQL Developer Data Modeler Summary Report:

--

-- CREATE TABLE 16

-- CREATE INDEX 1

-- ALTER TABLE 38

-- CREATE VIEW 0

-- ALTER VIEW 0

-- CREATE PACKAGE 0

-- CREATE PACKAGE BODY 0

-- CREATE PROCEDURE 0

-- CREATE FUNCTION 0

-- CREATE TRIGGER 2

-- ALTER TRIGGER 0

-- CREATE COLLECTION TYPE 0

-- CREATE STRUCTURED TYPE 0

-- CREATE STRUCTURED TYPE BODY 0

-- CREATE CLUSTER 0

-- CREATE CONTEXT 0

-- CREATE DATABASE 0

-- CREATE DIMENSION 0

-- CREATE DIRECTORY 0

-- CREATE DISK GROUP 0

-- CREATE ROLE 0

-- CREATE ROLLBACK SEGMENT 0

-- CREATE SEQUENCE 0

-- CREATE MATERIALIZED VIEW 0

-- CREATE MATERIALIZED VIEW LOG 0

-- CREATE SYNONYM 0

-- CREATE TABLESPACE 0

-- CREATE USER 0

--

-- DROP TABLESPACE 0

-- DROP DATABASE 0

--

-- REDACTION POLICY 0

--

-- ORDS DROP SCHEMA 0

-- ORDS ENABLE SCHEMA 0

-- ORDS ENABLE OBJECT 0

--

-- ERRORS 0

-- WARNINGS 0