

```
-- Generated by Oracle SQL Developer Data Modeler 21.2.0.183.1957
--   at:          2021-11-12 15:24:17 EST
--   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,  
    phonenumner 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 unique 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,  
    inovice date 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.inovice date 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 unique 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 unique 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,

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    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