Oracle Sample Database

Summary: this tutorial introduces you to an Oracle sample database and provides you with the links for you to download it.

> Note that this tutorial explains you the Oracle Sample Database. It doesn't show you how to create this sample database in Oracle. To create this database for practicing, you follow the creating the Oracle Sample Database tutorial.

Introduction to the OT Oracle sample database

We provide you with an Oracle sample database named OT which is based on a global fictitious company that sells computer hardware including storage, motherboard, RAM, video card, and CPU.

The company maintains the product information such as name, description standard cost, list price, and product line. It also tracks the inventory information for all products including warehouses where products are available. Because the company operates globally, it has warehouses in various locations around the world.

The company records all customer information including name, address, and website. Each customer has at least one contact person with detailed information including name, email, and phone. The company also places a credit limit on each customer to limit the amount that customer can owe.

Whenever a customer issues a purchase order, a sales order is created in the database with the pending status. When the company ships the order, the order status becomes shipped. In case the customer cancels an order, the order status becomes canceled.

In addition to the sales information, the employee data is recorded with some basic information such as name, email, phone, job title, manager, and hire date.

Oracle sample database diagram

The following illustrates the sample database diagram:

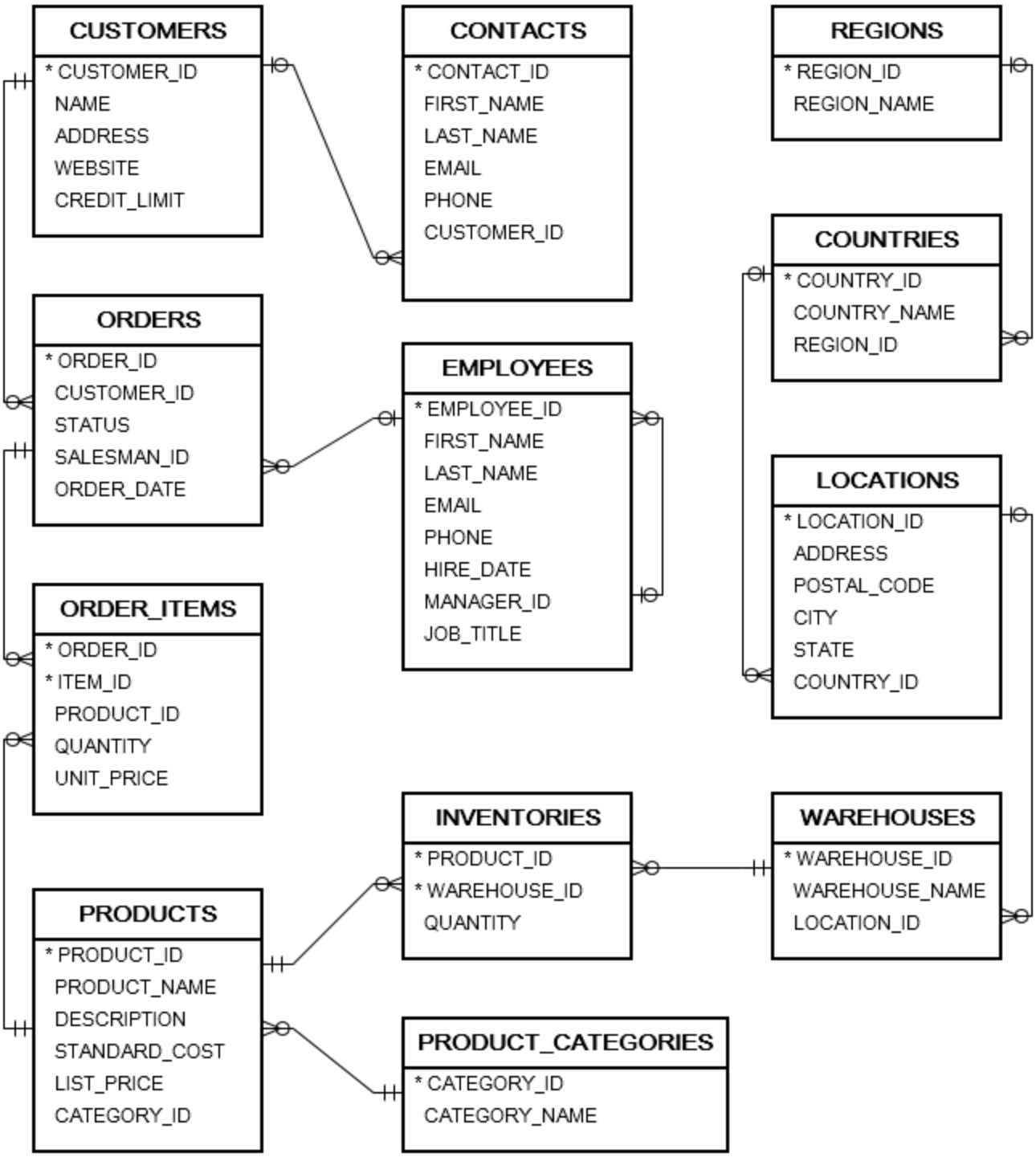

Table Names	Description	Records
CONTACTS	store contact person information of customers	319 records
COUNTRIES	store country information	25 records
CUSTOMERS	store customer master	319 records
EMPLOYEES	store employee master	107 records

Table Names	Description	Records
INVENTORIES	store inventory information of products	1112 records
LOCATIONS	store locations of warehouses	23 records
ORDERS	store order header information	105 records
ORDER_ITEMS	store order line items	665 records
PRODUCT_CATEGORIES	store product categories	5 records
PRODUCTS	store product information	288 records
REGIONS	store regions where the company operates	4 records
WAREHOUSES	store warehouse information	9 records

Download Oracle Sample database

Download the following sample database in zip file format:

Download Oracle Sample Database

After downloading the file, you should extract it. The zip file contains the following `*.sql` files:

- `ot_create_user.sql` is for creating OT user and grant privileges
- `ot_schema.sql` is for creating database objects such as tables, constraints, etc.
- `ot_data.sql` is for loading data into the tables.
- `ot_drop.sql` is for removing all objects in the sample database.

The following illustrates the statements for creating the database objects.

```
CREATE TABLE regions
  (
    region_id NUMBER GENERATED BY DEFAULT AS IDENTITY
    START WITH 5 PRIMARY KEY,
    region_name VARCHAR2( 50 ) NOT NULL
```

```
  );
-- countries table
CREATE TABLE countries
  (
    country_id   CHAR( 2 ) PRIMARY KEY  ,
    country_name VARCHAR2( 40 ) NOT NULL,
    region_id    NUMBER                 , -- fk
    CONSTRAINT fk_countries_regions FOREIGN KEY( region_id )
      REFERENCES regions( region_id )
      ON DELETE CASCADE
  );

-- location
CREATE TABLE locations
  (
    location_id NUMBER GENERATED BY DEFAULT AS IDENTITY START WITH 24
                PRIMARY KEY       ,
    address     VARCHAR2( 255 ) NOT NULL,
    postal_code VARCHAR2( 20 )          ,
    city        VARCHAR2( 50 )          ,
    state       VARCHAR2( 50 )          ,
    country_id  CHAR( 2 )               , -- fk
    CONSTRAINT fk_locations_countries
      FOREIGN KEY( country_id )
      REFERENCES countries( country_id )
      ON DELETE CASCADE
  );
-- warehouses
CREATE TABLE warehouses
  (
    warehouse_id NUMBER
                 GENERATED BY DEFAULT AS IDENTITY START WITH 10
                 PRIMARY KEY,
    warehouse_name VARCHAR( 255 ) ,
    location_id    NUMBER( 12, 0 ), -- fk
    CONSTRAINT fk_warehouses_locations
      FOREIGN KEY( location_id )
      REFERENCES locations( location_id )
      ON DELETE CASCADE
  );
-- employees
CREATE TABLE employees
```

```
  (
    employee_id NUMBER
                GENERATED BY DEFAULT AS IDENTITY START WITH 108
                PRIMARY KEY,
    first_name VARCHAR( 255 ) NOT NULL,
    last_name  VARCHAR( 255 ) NOT NULL,
    email      VARCHAR( 255 ) NOT NULL,
    phone      VARCHAR( 50 ) NOT NULL ,
    hire_date  DATE NOT NULL          ,
    manager_id NUMBER( 12, 0 )        , -- fk
    job_title  VARCHAR( 255 ) NOT NULL,
    CONSTRAINT fk_employees_manager
        FOREIGN KEY( manager_id )
        REFERENCES employees( employee_id )
        ON DELETE CASCADE
  );
-- product category
CREATE TABLE product_categories
  (
    category_id NUMBER
                GENERATED BY DEFAULT AS IDENTITY START WITH 6
                PRIMARY KEY,
    category_name VARCHAR2( 255 ) NOT NULL
  );

-- products table
CREATE TABLE products
  (
    product_id NUMBER
               GENERATED BY DEFAULT AS IDENTITY START WITH 289
               PRIMARY KEY,
    product_name  VARCHAR2( 255 ) NOT NULL,
    description   VARCHAR2( 2000 )        ,
    standard_cost NUMBER( 9, 2 )          ,
    list_price    NUMBER( 9, 2 )          ,
    category_id   NUMBER NOT NULL         ,
    CONSTRAINT fk_products_categories
      FOREIGN KEY( category_id )
      REFERENCES product_categories( category_id )
      ON DELETE CASCADE
  );
-- customers
```

```
CREATE TABLE customers
  (
    customer_id NUMBER
                GENERATED BY DEFAULT AS IDENTITY START WITH 320
                PRIMARY KEY,
    name         VARCHAR2( 255 ) NOT NULL,
    address      VARCHAR2( 255 )         ,
    website      VARCHAR2( 255 )         ,
    credit_limit NUMBER( 8, 2 )
  );
-- contacts
CREATE TABLE contacts
  (
    contact_id NUMBER
               GENERATED BY DEFAULT AS IDENTITY START WITH 320
               PRIMARY KEY,
    first_name  VARCHAR2( 255 ) NOT NULL,
    last_name   VARCHAR2( 255 ) NOT NULL,
    email       VARCHAR2( 255 ) NOT NULL,
    phone       VARCHAR2( 20 )          ,
    customer_id NUMBER                  ,
    CONSTRAINT fk_contacts_customers
      FOREIGN KEY( customer_id )
      REFERENCES customers( customer_id )
      ON DELETE CASCADE
  );
-- orders table
CREATE TABLE orders
  (
    order_id NUMBER
             GENERATED BY DEFAULT AS IDENTITY START WITH 106
             PRIMARY KEY,
    customer_id NUMBER( 6, 0 ) NOT NULL, -- fk
    status      VARCHAR( 20 ) NOT NULL ,
    salesman_id NUMBER( 6, 0 )         , -- fk
    order_date  DATE NOT NULL          ,
    CONSTRAINT fk_orders_customers
      FOREIGN KEY( customer_id )
      REFERENCES customers( customer_id )
      ON DELETE CASCADE,
    CONSTRAINT fk_orders_employees
      FOREIGN KEY( salesman_id )
```

```
      REFERENCES employees( employee_id )
      ON DELETE SET NULL
  );
-- order items
CREATE TABLE order_items
  (
    order_id   NUMBER( 12, 0 )                              , -- fk
    item_id    NUMBER( 12, 0 )                              ,
    product_id NUMBER( 12, 0 ) NOT NULL                     , -- fk
    quantity   NUMBER( 8, 2 ) NOT NULL                      ,
    unit_price NUMBER( 8, 2 ) NOT NULL                      ,
    CONSTRAINT pk_order_items
      PRIMARY KEY( order_id, item_id ),
    CONSTRAINT fk_order_items_products
      FOREIGN KEY( product_id )
      REFERENCES products( product_id )
      ON DELETE CASCADE,
    CONSTRAINT fk_order_items_orders
      FOREIGN KEY( order_id )
      REFERENCES orders( order_id )
      ON DELETE CASCADE
  );
-- inventories
CREATE TABLE inventories
  (
    product_id   NUMBER( 12, 0 )        , -- fk
    warehouse_id NUMBER( 12, 0 )        , -- fk
    quantity     NUMBER( 8, 0 ) NOT NULL,
    CONSTRAINT pk_inventories
      PRIMARY KEY( product_id, warehouse_id ),
    CONSTRAINT fk_inventories_products
      FOREIGN KEY( product_id )
      REFERENCES products( product_id )
      ON DELETE CASCADE,
    CONSTRAINT fk_inventories_warehouses
      FOREIGN KEY( warehouse_id )
      REFERENCES warehouses( warehouse_id )
      ON DELETE CASCADE
  );
```

In this tutorial, we have introduced you the Oracle sample database and shown you how to download it. Now, you should be ready to create the sample database in your Oracle

database server for practice.