

BÀI THỰC HÀNH SỐ 2.

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TÓM TẮT NỘI DUNG THỰC HÀNH

Sinh viên tìm hiểu việc thiết lập kết nối giữa các cơ sở dữ liệu Oracle qua sự hướng dẫn của giảng viên thực hành. Trong đó, các kiến thức cần lưu ý bao gồm:

- o Database link là gì?
- o Các loại database link
- o Cú pháp tạo, xóa database link.

Keywords: Database Link, Oracle, Role, Grant, Connect, ...

NỘI DUNG THỰC HÀNH

1. DDL

Tại chi nhánh 1

```
ALTER USER CN1 QUOTA UNLIMITED ON USERS;
ALTER SESSION SET NLS_DATE_FORMAT = 'DD/MM/YY HH24:MI:SS';
CREATE TABLE CN1.SACH
(
    MaSach VARCHAR2(5) CONSTRAINT PK_SACH PRIMARY KEY,
    TenSach VARCHAR2(50),
    NgayXB DATE,
    TacGia VARCHAR2(50),
    GiaTien INT,
    NhaXuatBan VARCHAR2(20),
    LanIn NUMBER
);

CREATE TABLE CN1.CHINHANH
(
    MaChiNhanh VARCHAR2(4) CONSTRAINT PK_CHINHANH PRIMARY KEY,
    TenChiNhanh VARCHAR2(50),
    SoDT VARCHAR2(12)
);

CREATE TABLE CN1.KHOSACH_QLKHO
(
    MaChiNhanh VARCHAR2(4),
    MaSach VARCHAR2(5),
    SoLuong NUMBER,
    NgayCapNhat DATE,
    CONSTRAINT PK_KS_QLK PRIMARY KEY (MaChiNhanh, MaSach)
);

CREATE TABLE CN1.KHOSACH_NVBH (
    MaChiNhanh VARCHAR(4),
    MaSach VARCHAR(5),
    TinhTrang VARCHAR (10),
    KhuyenMai NUMBER ,
    CONSTRAINT PK_KHOSACH_NVBH PRIMARY KEY(MaChiNhanh, MaSach)
);

CREATE TABLE CN1.NHANVIEN (
    MaNV VARCHAR(4) CONSTRAINT PK_NV PRIMARY KEY,
    TenNV VARCHAR(50),
    DiaChi VARCHAR(30),
    SoDT VARCHAR(20),
    Luong NUMBER ,
    MaChiNhanh VARCHAR(4)
);

-- khoa ngoai
ALTER TABLE CN1.KHOSACH_NVBH ADD CONSTRAINT FK_NVBH_CN FOREIGN KEY (MaChiNhanh) REFERENCES CN1.CHINHANH(MaChiNhanh);
ALTER TABLE CN1.KHOSACH_NVBH ADD CONSTRAINT FK_NVBH_MS FOREIGN KEY (MaSach) REFERENCES CN1.SACH(MaSach);
ALTER TABLE CN1.NHANVIEN ADD CONSTRAINT FK_NV_CN FOREIGN KEY (MaChiNhanh) REFERENCES CN1.CHINHANH(MaChiNhanh);
```

Tại chi nhánh 2

```
ALTER USER CN2 QUOTA UNLIMITED ON USERS;
ALTER SESSION SET NLS_DATE_FORMAT = 'DD/MM/YY HH24:MI:SS';
CREATE TABLE CN2.SACH
(
    MaSach VARCHAR2(5) CONSTRAINT PK_SACH PRIMARY KEY,
    TenSach VARCHAR2(50),
    NgayXB DATE,
    TacGia VARCHAR2(50),
    GiaTien INT,
    NhaXuatBan VARCHAR2(20),
    LanIn NUMBER
);

CREATE TABLE CN2.CHINHANH
(
    MaChiNhanh VARCHAR2(4) CONSTRAINT PK_CHINHANH PRIMARY KEY,
    TenChiNhanh VARCHAR2(50),
    SoDT VARCHAR2(12)
);

CREATE TABLE CN2.KHOSACH_QLKHO
(
    MaChiNhanh VARCHAR2(4),
    MaSach VARCHAR2(5),
    SoLuong NUMBER,
    NgayCapNhat DATE,
    CONSTRAINT PK_KS_QLK PRIMARY KEY (MaChiNhanh, MaSach)
);

CREATE TABLE CN2.KHOSACH_NVBH (
    MaChiNhanh VARCHAR(4),
    MaSach VARCHAR(5),
    TinhTrang VARCHAR (10),
    KhuyenMai NUMBER ,
    CONSTRAINT PK_KHOSACH_NVBH PRIMARY KEY(MaChiNhanh, MaSach)
);

CREATE TABLE CN2.NHANVIEN (
    MaNV VARCHAR(4) CONSTRAINT PK_NV PRIMARY KEY,
    TenNV VARCHAR(50),
    DiaChi VARCHAR(30),
    SoDT VARCHAR(20),
    Luong NUMBER ,
    MaChiNhanh VARCHAR(4)
);
```

-- khoa ngoai

```
ALTER TABLE CN2.KHOSACH_NVBH ADD CONSTRAINT FK_NVBH_CN FOREIGN KEY (MaChiNhanh) REFERENCES CN2.CHINHANH(MaChiNhanh);
ALTER TABLE CN2.KHOSACH_NVBH ADD CONSTRAINT FK_NVBH_MS FOREIGN KEY (MaSach) REFERENCES CN2.SACH(MaSach);
ALTER TABLE CN2.NHANVIEN ADD CONSTRAINT FK_NV_CN FOREIGN KEY (MaChiNhanh) REFERENCES CN2.CHINHANH(MaChiNhanh);
```

2. SIX QUERIES

Tại chi nhánh 1:

Database link tại chi nhánh 1:

```
SQL> create public database link cn2_link connect to cn1 identified by cn1 using 'CN2';
Database link created.

SQL> create public database link cn2_link_giamdoc connect to GiamDoc identified by giamdoc using 'CN2';
Database link created.

SQL>
SQL> create public database link cn2_link_nhanvien connect to NhanVien identified by nhanvien using 'CN2';
Database link created.
```

Query 1:

```
SQL> conn NhanVien/nhanvien;
Connected.
SQL> SELECT MACHINHANH, NVBH1.MASACH, TENSACH FROM CN1.KHOSACH_NVBH NVBH1, CN1.SACH S1 WHERE NVBH1.MASACH = S1.MASACH AND TINHTRANG = 'Het Hang'
2 UNION
3 SELECT MACHINHANH, NVBH2.MASACH, TENSACH FROM CN2.KHOSACH_NVBH@cn2_link_nhanvien NVBH2, CN2.SACH@cn2_link_nhanvien S2 WHERE NVBH2.MASACH = S2.MASACH AND TINHTRANG = 'Het Hang';
SELECT MACHINHANH, NVBH2.MASACH, TENSACH FROM CN2.KHOSACH_NVBH@cn2_link_nhanvien NVBH2, CN2.SACH@cn2_link_nhanvien S2 WHERE NVBH2.MASACH = S2.MASACH AND TINHTRANG = 'Het Hang'
ERROR at line 3:
ORA-02019: connection description for remote database not found

SQL> SELECT MACHINHANH, NVBH1.MASACH, TENSACH FROM CN1.KHOSACH_NVBH NVBH1, CN1.SACH S1 WHERE NVBH1.MASACH = S1.MASACH AND TINHTRANG = 'Het Hang'
2 UNION
3 SELECT MACHINHANH, NVBH2.MASACH, TENSACH FROM CN2.KHOSACH_NVBH@cn2_link_nhanvien NVBH2, CN2.SACH@cn2_link_nhanvien S2 WHERE NVBH2.MASACH = S2.MASACH AND TINHTRANG = 'Het Hang';

MACH MASACH TENSACH
-----
CN01 Book1 SpyxFamily T.6
CN02 Book2 S. Family T.6 L
```

Query 2:

```
SQL> connect GiamDoc/giamdoc;
Connected.
SQL> SELECT A.MASACH, TENSACH
2 FROM CN1.SACH A, CN1.KHOSACH_QLKHO B, CN1.KHOSACH_NVBH C
3 WHERE A.MASACH = B.MASACH AND A.MASACH = C.MASACH AND B.MACHINHANH = C.MACHINHANH AND B.MASACH = C.MASACH AND SOLUONG >120 AND TINHTRANG = 'Con Hang'
4 UNION
5 SELECT D.MASACH, TENSACH
6 FROM CN2.SACH@cn2_link_giamdoc D, CN2.KHOSACH_QLKHO@cn2_link_giamdoc E, CN2.KHOSACH_NVBH@cn2_link_giamdoc F
7 WHERE D.MASACH = E.MASACH AND D.MASACH = F.MASACH AND E.MACHINHANH = F.MACHINHANH AND E.MASACH = F.MASACH AND SOLUONG >120 AND TINHTRANG = 'Con Hang';

MASACH TENSACH
-----
Book1 SpyxFamily T.6
Book3 Th.L2ng B.H
Book4 Black Jack 3
Book5 One Piece 90
```

Query 3:

```
SQL> connect QuanLyKho/quantlykho;
Connected.
SQL> SELECT TENSACH, NGAYXB, TACGIA, GIATIENT, SOLUONG, LANIN, NGAYCAPNHAT
2 FROM CN1.SACH S1 JOIN CN1.KHOSACH_QLKHO Q1 ON S1.MASACH=Q1.MASACH
3 WHERE NHAXUATBAN = 'Kim Dong';

TENSACH
-----
TACGIA
-----
LANIN NGAYCAPNH
-----
SpyxFamily T.6
Endou Tatsuya
1 29-OCT-21
One Piece 90
Eiichiro Oda
2 30-OCT-21

NGAYXB
-----
GIATIENT SOLUONG
-----
29-OCT-21
25000 0
11-OCT-21
19500 100

TENSACH
-----
TACGIA
-----
LANIN NGAYCAPNH
-----
```

Query 4:

```
SQL> connect GiamDoc/giamdoc;
Connected.
SQL> SELECT S1.MASACH, S1.TENSACH FROM CN1.SACH S1 JOIN CN1.KHOSACH_NVBH NVBH1 ON S1.MASACH = NVBH1.MASACH AND NVBH1.TINHTRANG = 'Con Hang'
2 INTERSECT
3 SELECT S2.MASACH, S2.TENSACH FROM CN2.SACH@cn2_link_giamdoc S2 JOIN CN2.KHOSACH_NVBH@cn2_link_giamdoc NVBH2 ON S2.MASACH = NVBH2.MASACH AND NVBH2.TINHTRANG = 'Con Hang';

MASACH TENSACH
-----
Book5 One Piece 90
```

Query 5:

```
SQL> SELECT QL1.MASACH FROM CN1.KHOSACH_QLKHO QL1
2 INTERSECT
3 SELECT QL2.MASACH FROM CN2.KHOSACH_QLKHO@cn2_link_giamdoc QL2;

MASACH
-----
Book1
Book5
```

Tại chi nhánh 2:

Database link tại chi nhánh 2:

```
SQL> create public database link cn1_link connect to cn2 identified by cn2 using 'CN1';
Database link created.

SQL> create public database link cn1_link_nhanvien connect to NhanVien identified by nhanvien using 'CN1';
Database link created.
```

Query 6:

```
SQL> conn NhanVien/nhanvien;
Connected.
SQL> SELECT S.MASACH, TENSACH, MAX(KHUYENMAI), COUNT(MACHINHANH)
2 FROM (SELECT MACHINHANH, NVBH2.MASACH, TENSACH, KHUYENMAI
3 FROM CN2.SACH S2, CN2.KHOSACH_NVBH NVBH2
4 WHERE S2.MASACH = NVBH2.MASACH AND NHAXUATBAN = 'Kim Dong'
5 UNION
6 SELECT MACHINHANH, NVBH1.MASACH, TENSACH, KHUYENMAI
7 FROM CN1.SACH@cn1_link_nhanvien S1, CN1.KHOSACH_NVBH@cn1_link_nhanvien NVBH1
8 WHERE S1.MASACH = NVBH1.MASACH AND NHAXUATBAN = 'Kim Dong') S
9 GROUP BY S.MASACH, TENSACH;

MASACH TENSACH MAX(KHUYENMAI)
-----
COUNT(MACHINHANH)
-----
Book1 SpyxFamily T.6 10
2
Book5 One Piece 90 20
2
Book2 S. Family T.6 L 0
1
```

3. KIẾN TRÚC PHẦN MỀM

Tại chi nhánh 1:

- SACH
- $CN1.CHINHANH = \delta_{(MaChiNhanh = 'CN1')}CHINHANH$
- $CN1.KHOSACH = KHOSACH \bowtie_{MaChiNhanh} CN1.CHINHANH$
- CN1.KHOSACH tách thành:
 - + CN1.KHOSACH_QLKHO (MaChiNhanh, MaSach, SoLuong, NgayCapNhat)
 - + CN1.KHOSACH_NVBH (MaChiNhanh, MaSach, TinhTrang, KhuyenMai)
- $CN1.NHANVIEN = NHANVIEN \bowtie_{MaChiNhanh} CN1.CHINHANH$

Tại chi nhánh 2:

- SACH
- $CN2.CHINHANH = \delta_{(MaChiNhanh = 'CN2')}CHINHANH$
- $CN2.KHOSACH = KHOSACH \bowtie_{MaChiNhanh} CN2.CHINHANH$
- CN2.KHOSACH tách thành:
 - + CN2.KHOSACH_QLKHO (MaChiNhanh, MaSach, SoLuong, NgayCapNhat)
 - + CN2.KHOSACH_NVBH (MaChiNhanh, MaSach, TinhTrang, KhuyenMai)
- $CN2.NHANVIEN = NHANVIEN \bowtie_{MaChiNhanh} CN2.CHINHANH$

4. KIẾN TRÚC PHÂN QUYỀN

Tại chi nhánh 1:

User cn1:

```
SQL> alter session set "_ORACLE_SCRIPT" = true;
Session altered.

SQL> create user cn1 identified by cn1;
User created.

SQL> grant connect, dba to cn1;
Grant succeeded.
```

User GiamDoc

```
SQL> create user GiamDoc identified by giamdoc;
User created.

SQL> grant connect to GiamDoc;
Grant succeeded.

SQL> grant select on CN1.SACH to GiamDoc;
Grant succeeded.

SQL> grant select on CN1.CHINHANH to GiamDoc;
Grant succeeded.

SQL> grant select on CN1.KHOSACH_QLKHO to GiamDoc;
Grant succeeded.

SQL> grant select on CN1.KHOSACH_NVBH to GiamDoc;
Grant succeeded.

SQL> grant select on CN1.NHANVIEN to GiamDoc;
Grant succeeded.
```

User QuanLyKho

```
SQL> create user QuanLyKho identified by quanlykho;
User created.

SQL> grant connect to QuanLyKho;
Grant succeeded.

SQL> grant select on CN1.SACH to QuanLyKho;
Grant succeeded.

SQL> grant select on CN1.KHOSACH_QLKHO to QuanLyKho;
Grant succeeded.
```


User NhanVien

```
SQL> create user NhanVien identified by nhanvien;
User created.

SQL> grant connect to NhanVien;
Grant succeeded.

SQL> grant select on CN1.SACH to NhanVien;
Grant succeeded.

SQL> grant select on CN1.KHOSACH_NVBH to NhanVien;
Grant succeeded.
```

User cn2

```
SQL> create user cn2 identified by cn2;
User created.

SQL> grant connect to cn2;
Grant succeeded.

SQL> grant select on cn1.SACH to cn2;
Grant succeeded.

SQL> grant select on cn1.CHINHANH to cn2;
Grant succeeded.

SQL> grant select on cn1.KHOSACH_QLKHO to cn2;
Grant succeeded.

SQL> grant select on cn1.KHOSACH_NVBH to cn2;
Grant succeeded.

SQL> grant select on cn1.NHANVIEN to cn2;
```

Tại chi nhánh 2:

User cn2:

```
SQL> alter session set "_ORACLE_SCRIPT"=true;
Session altered.

SQL> create user cn2 identified by cn2;
User created.

SQL> grant connect, dba to cn2;
Grant succeeded.
```


User GiamDoc

```
SQL> create user GiamDoc identified by giamdoc;
User created.

SQL> grant select on cn2.sach to GiamDoc;
Grant succeeded.

SQL> grant select on cn2.chinhanh to GiamDoc;
Grant succeeded.

SQL> grant select on cn2.khosach_qlkho to GiamDoc;
Grant succeeded.

SQL> grant select on cn2.khosach_nvbh to GiamDoc;
Grant succeeded.

SQL> grant select on cn2.nhanvien to GiamDoc;
Grant succeeded.

SQL> grant connect to GiamDoc;
Grant succeeded.
```

User QuanLyKho

```
SQL> create user QuanLyKho identified by quanlykho;
User created.

SQL> grant select on cn2.sach to QuanLyKho;
Grant succeeded.

SQL> grant select on cn2.khosach_qlkho to QuanLyKho;
Grant succeeded.

SQL> grant connect to QuanLyKho;
Grant succeeded.
```

User NhanVien

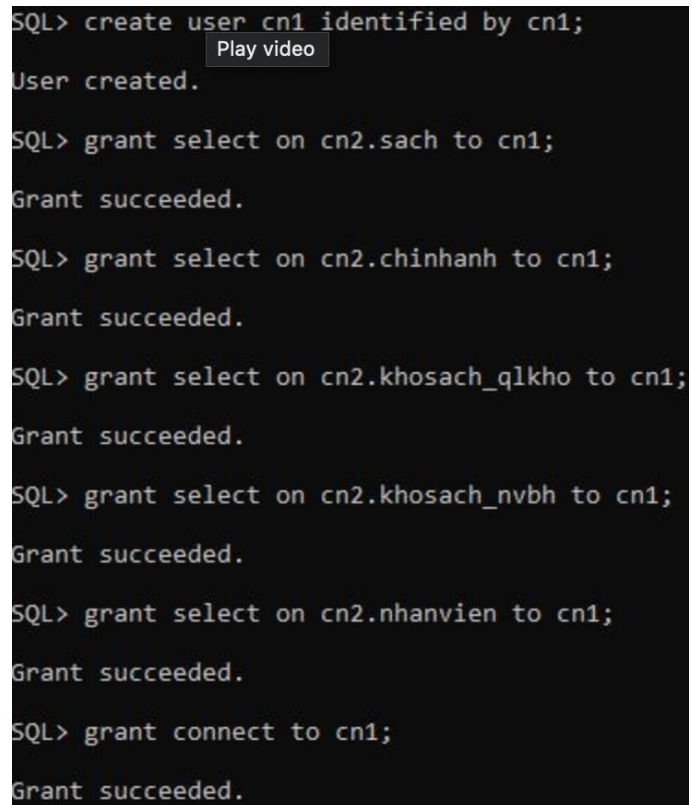
```
SQL> create user NhanVien identified by nhanvien;
User created.

SQL> grant select on cn2.sach to NhanVien;
Grant succeeded.

SQL> grant select on cn2.khosach_nvbh to NhanVien;
Grant succeeded.

SQL> grant connect to NhanVien;
Grant succeeded.
```

User cn1



A terminal window with a black background and white text. The text shows a series of SQL commands and their outputs. A small grey button with the text 'Play video' is overlaid on the first line of the terminal output.

```
SQL> create user cn1 identified by cn1;
User created.
SQL> grant select on cn2.sach to cn1;
Grant succeeded.
SQL> grant select on cn2.chinhanh to cn1;
Grant succeeded.
SQL> grant select on cn2.khosach_qlkho to cn1;
Grant succeeded.
SQL> grant select on cn2.khosach_nvbh to cn1;
Grant succeeded.
SQL> grant select on cn2.nhanvien to cn1;
Grant succeeded.
SQL> grant connect to cn1;
Grant succeeded.
```

5. MÔI TRƯỜNG ẢO (VIRTUAL BOX)

a. Tổ chức dữ liệu ở máy 1

Bảng cn1.SACH

```
SQL> select * from cn1.sach;
```

| MASAC | TENSACH | NGAYXB |
|---------------|-----------------|-----------|
| TACGIA | GIATIENT | |
| NHAXUATBAN | LANIN | |
| Book1 | SpyxFamily T.6 | 29-OCT-21 |
| Endou Tatsuya | | 25000 |
| Kim Dong | 1 | |
| Book2 | S. Family T.6 L | 29-OCT-21 |
| Endou Tatsuya | | 45000 |
| Kim Dong | 1 | |

| MASAC | TENSACH | NGAYXB |
|-----------------|--------------|-----------|
| TACGIA | GIATIENT | |
| NHAXUATBAN | LANIN | |
| Book3 | Th.L?ng B.H | |
| Agatha Christie | | 120000 |
| Tre | 1 | |
| Book4 | Black Jack 3 | 25-OCT-21 |
| Osamu Tezuka | | 30000 |

Bảng cn1.CHINHANH

```
SQL> select * from cn1.chinhanh union select * from cn2.chinhanh@cn2;
```

| MACH | TENCHINHANH | SODT |
|------|-------------------------|------------|
| CN01 | Quan 3, TPHCM | 0939013914 |
| CN02 | Quan Hoang Kiem, Ha Noi | 0907979815 |

Bảng cn1.KHOSACH_QLKHO

```
SQL> select * from cn1.khosach_qlkho union select * from cn2.khosach_qlkho@cn2;
```

| MACH | MASAC | SOLUONG | NGAYCAPNH |
|------|-------|---------|-----------|
| CN01 | Book1 | 0 | 29-OCT-21 |
| CN01 | Book3 | 510 | 30-OCT-21 |
| CN01 | Book5 | 100 | 30-OCT-21 |
| CN02 | Book1 | 500 | 29-OCT-21 |
| CN02 | Book2 | 0 | 29-OCT-21 |
| CN02 | Book4 | 180 | 30-OCT-21 |
| CN02 | Book5 | 187 | 30-OCT-21 |

Bảng cn1.KHOSACH_NVBH

```
SQL> select * from cn1.khosach_nvbh union select * from cn2.khosach_nvbh@cn2;
```

| MACH | MASAC | TINHTRANG | KHUYENMAI |
|------|-------|-----------|-----------|
| CN01 | Book1 | Het Hang | 0 |
| CN01 | Book3 | Con Hang | 20 |
| CN01 | Book5 | Con Hang | 20 |
| CN02 | Book1 | Con Hang | 10 |
| CN02 | Book2 | Het Hang | 0 |
| CN02 | Book4 | Con Hang | 10 |
| CN02 | Book5 | Con Hang | 15 |

Bảng cn1.NHANVIEN

```
SQL> select * from cn1.nhanvien union select * from cn2.nhanvien@cn2;
```

| MANU | TENNV | | |
|--------------------------|------------|---------|------|
| DIACHI | SODT | LUONG | MACH |
| NU01 Nguyen Thi Thuy Nga | 0943058578 | 4900000 | CN02 |
| Dak Lak | | | |
| NU02 Le Huynh Lan Ha | 0823664648 | 4900000 | CN02 |
| An Giang | | | |
| NU03 Ho Trong Khang | 0858595208 | 5200000 | CN01 |
| Binh Dinh | | | |
| MANU | TENNV | | |
| DIACHI | SODT | LUONG | MACH |
| NU04 Ho Huu Thang | | 5200000 | CN01 |
| Bien Hoa | | | |
| NU05 Phan Pham Quynh Hoa | | | |

b. Tổ chức dữ liệu ở máy 2

Bảng cn2.SACH

```
SQL> select * from cn2.sach;
```

| MASAC | TENSACH | NGAYXB |
|-----------------------|---------|-----------|
| TACGIA | | GIATIENT |
| NHAXUATBAN | LANIN | |
| Book1 SpyxFamily T.6 | | 29-OCT-21 |
| Endou Iatsuya | | 25000 |
| Kim Dong | 1 | |
| Book2 S. Family T.6 L | | 29-OCT-21 |
| Endou Iatsuya | | 45000 |
| Kim Dong | 1 | |
| MASAC | TENSACH | NGAYXB |
| TACGIA | | GIATIENT |
| NHAXUATBAN | LANIN | |

| Book3 Th.L?ng B.H | | |
|--------------------|---------|-----------|
| Agatha Christie | | 120000 |
| Tre | 1 | |
| Book4 Black Jack 3 | | 25-OCT-21 |
| Osamu Tezuka | | 30000 |
| MASAC | TENSACH | NGAYXB |
| TACGIA | | GIATIENT |
| NHAXUATBAN | LANIN | |
| Tre | 1 | |
| Book5 One Piece 90 | | 11-OCT-21 |
| Eiichiro Oda | | 19500 |
| Kim Dong | 2 | |

Bảng cn2.CHINHANH

```
SQL> select * from cn2.chinhanh;
```

| MACH | TENCHINHANH | SODT |
|------|-------------------------|------------|
| CN02 | Quan Hoang Kiem, Ha Noi | 0907979815 |

Bảng cn2.KHOSACH_QLKHO

```
SQL> select * from khosach_qlkho;
```

| MACH | MASAC | SOLUONG | NGAYCAPNH |
|------|-------|---------|-----------|
| CN02 | Book1 | 500 | 29-OCT-21 |
| CN02 | Book2 | 0 | 29-OCT-21 |
| CN02 | Book4 | 180 | 30-OCT-21 |
| CN02 | Book5 | 187 | 30-OCT-21 |

Bảng cn2.KHOSACH_NVBH

```
SQL> select * from khosach_nvbh;
```

| MACH | MASAC | TINHTRANG | KHUYENMAI |
|------|-------|-----------|-----------|
| CN02 | Book1 | Con Hang | 10 |
| CN02 | Book2 | Het Hang | 0 |
| CN02 | Book4 | Con Hang | 10 |
| CN02 | Book5 | Con Hang | 15 |

Bảng cn2.NHANVIEN

```
SQL> select * from cn2.nhanvien;
```

| MANU | TENNV | DIACHI | SODT | LUONG | MACH |
|------|---------------------|------------|------------|---------|------|
| NU01 | Nguyen Thi Thuy Nga | Dak Lak | 0943058578 | 4900000 | CN02 |
| NU02 | Le Huynh Lan Ha | An Giang | 0823664648 | 4900000 | CN02 |
| NU05 | Phan Phan Quynh Hoa | Binh Thuan | | 4900000 | CN02 |

6. MÔI TRƯỜNG THẬT (RADMIN VPN)

a. Tổ chức dữ liệu ở chi nhánh 1

Bảng cn1.SACH

```
SQL> connect cn1/cn1
Connected.
SQL> select *from cn1.sach;
```

| MASAC | TENSACH | NGAYXB |
|------------|-----------------|-----------|
| TACGIA | | GIATIEN |
| NHAXUATBAN | LANIN | |
| Book1 | SpyxFamily T.6 | 29-OCT-21 |
| | Endou Tatsuya | 25000 |
| | Kim Dong | 1 |
| Book2 | S. Family T.6 L | 29-OCT-21 |
| | Endou Tatsuya | 45000 |
| | Kim Dong | 1 |
| MASAC | TENSACH | NGAYXB |
| TACGIA | | GIATIEN |
| NHAXUATBAN | LANIN | |
| Book3 | Th.L?ng B.H | |
| | Agatha Christie | 120000 |
| | Tre | 1 |
| Book4 | Black Jack 3 | 25-OCT-21 |
| | Osamu Tezuka | 30000 |
| MASAC | TENSACH | NGAYXB |
| TACGIA | | GIATIEN |
| NHAXUATBAN | LANIN | |
| | Tre | 1 |
| Book5 | One Piece 90 | 11-OCT-21 |
| | Eiichiro Oda | 19500 |
| | Kim Dong | 2 |

Bảng cn1.CHINHANH

```
SQL> select *from cn1.chinhanh;
```

| MACH | TENCHINHANH | SODT |
|------|---------------|------------|
| CN01 | Quan 3, TPHCM | 0939013914 |

Bảng cn1.KHOSACH_QLKHO

```
SQL> select *from cn1.khosach_qlkho;
```

| MACH | MASAC | SOLUONG | NGAYCAPNH |
|------|-------|---------|-----------|
| CN01 | Book1 | 0 | 29-OCT-21 |
| CN01 | Book3 | 510 | 30-OCT-21 |
| CN01 | Book5 | 100 | 30-OCT-21 |

Bảng cn1.KHOSACH_NVBH

```
SQL> select *from cn1.khosach_nvbh;
```

| MACH | MASAC | TINHTRANG | KHUYENMAI |
|------|-------|-----------|-----------|
| CN01 | Book1 | Het Hang | 0 |
| CN01 | Book3 | Con Hang | 20 |
| CN01 | Book5 | Con Hang | 20 |

Bảng cn1.NHANVIEN

```
SQL> select *from cn1.nhanvien;
```

| MANV | TENNV | DIACHI | SODT | LUONG | MACH |
|------|------------------|-----------|------------|---------|------|
| NV03 | Ho Trong Khang | Binh Dinh | 0858595208 | 5200000 | CN01 |
| NV04 | Ho Huu Thang | Bien Hoa | | 5200000 | CN01 |
| NV06 | Tran Thi Ngoc An | Binh Dinh | 0944052874 | 5200000 | CN01 |

b. Tổ chức dữ liệu ở chi nhánh 2

Bảng cn2.SACH

```
SQL> conn cn2/cn2;
Connected.
SQL> select * from sach;
```

| MASAC | TENSACH | NGAYXB |
|-----------------|-----------------|-----------|
| TACGIA | GIATIEN | |
| NHAXUATBAN | LANIN | |
| Book1 | SpyxFamily T.6 | 29-OCT-21 |
| Endou Tatsuya | | 25000 |
| Kim Dong | 1 | |
| Book2 | S. Family T.6 L | 29-OCT-21 |
| Endou Tatsuya | | 45000 |
| Kim Dong | 1 | |
| Book3 | Th.L?ng B.H | |
| Agatha Christie | | 120000 |
| Tre | 1 | |
| Book4 | Black Jack 3 | 25-OCT-21 |
| Osamu Tezuka | | 30000 |
| Book5 | One Piece 90 | 11-OCT-21 |
| Eiichiro Oda | | 19500 |
| Kim Dong | 2 | |

Bảng cn2.CHINHANH

```
SQL> select * from chinhanh;
```

| MACH | TENCHINHANH | SODT |
|-------|-------------------------|------------|
| ----- | ----- | ----- |
| CN02 | Quan Hoang Kiem, Ha Noi | 0907979815 |

Bảng cn2.KHOSACH_QLKHO

```
SQL> select * from khosach_qlkho;
```

| MACH | MASAC | SOLUONG | NGAYCAPNH |
|-------|-------|---------|-----------|
| ----- | ----- | ----- | ----- |
| CN02 | Book1 | 500 | 29-OCT-21 |
| CN02 | Book2 | 0 | 29-OCT-21 |
| CN02 | Book4 | 180 | 30-OCT-21 |
| CN02 | Book5 | 187 | 30-OCT-21 |

Bảng cn2.KHOSACH_NVBH

```
SQL> select * from khosach_nvbh;
```

| MACH | MASAC | TINHTRANG | KHUYENMAI |
|-------|-------|-----------|-----------|
| ----- | ----- | ----- | ----- |
| CN02 | Book1 | Con Hang | 10 |
| CN02 | Book2 | Het Hang | 0 |
| CN02 | Book4 | Con Hang | 10 |
| CN02 | Book5 | Con Hang | 15 |

Bảng cn2.NHANVIEN

```
SQL> select * from nhanvien;
```

| MANV | TENNV | DIACHI | SODT | LUONG | MACH |
|-------|---------------------|------------|------------|---------|-------|
| ----- | ----- | ----- | ----- | ----- | ----- |
| NV01 | Nguyen Thi Thuy Nga | Dak Lak | 0943058578 | 4900000 | CN02 |
| NV02 | Le Huynh Lan Ha | An Giang | 0823664648 | 4900000 | CN02 |
| NV05 | Phan Pham Quynh Hoa | Binh Thuan | | 4900000 | CN02 |

TÀI LIỆU THAM KHẢO