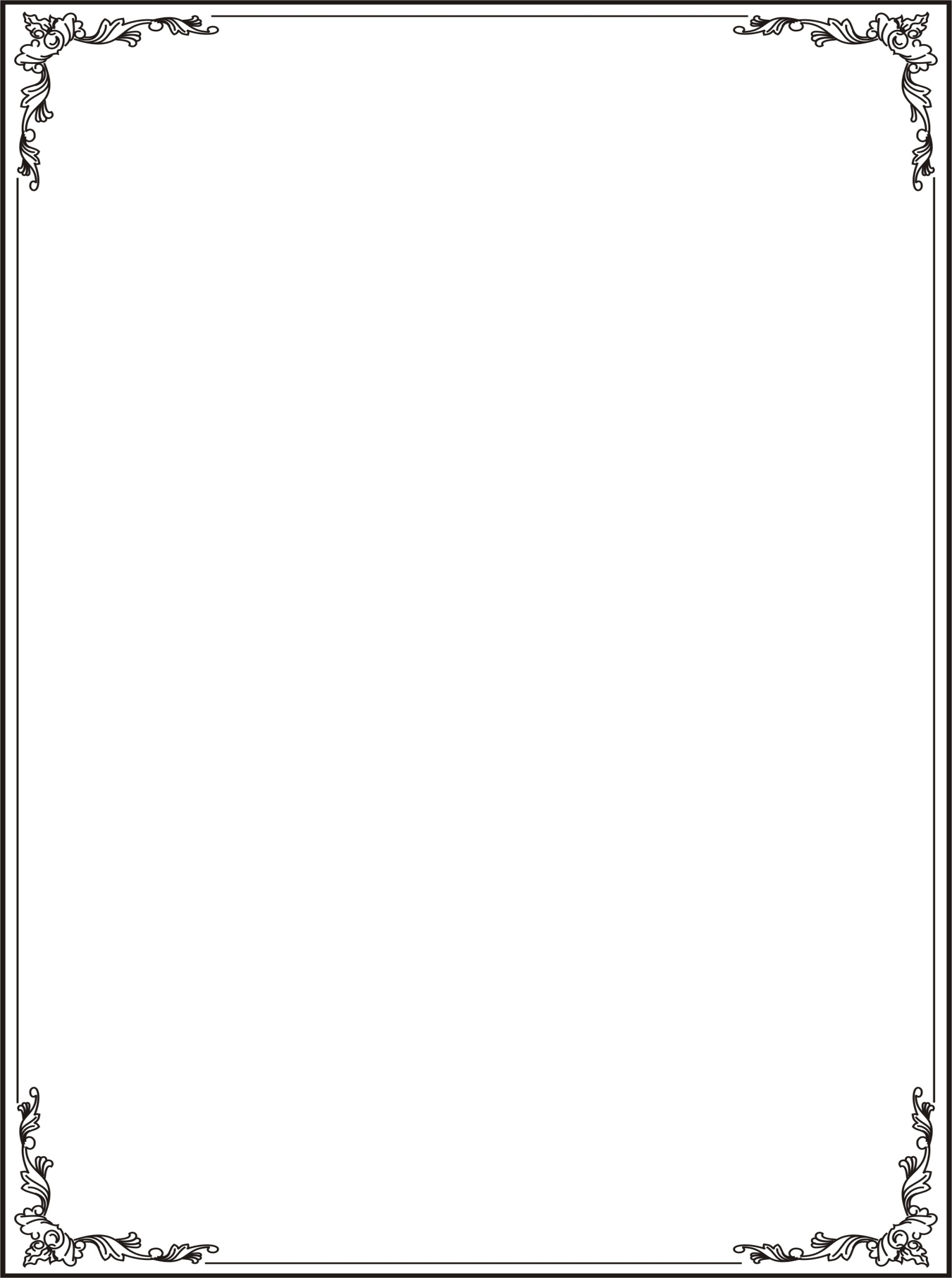
**ĐẠI HỌC QUỐC GIA TP.HCM**

**TRƯỜNG ĐẠI HỌC BÁCH KHOA**

**KHOA KHOA HỌC VÀ KỸ THUẬT MÁY TÍNH**

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**BÁO CÁO BÀI TẬP LỚN**

**Môn : Hệ Cơ Sở Dữ Liệu**

**Đề tài 5**

**Giáo viên hướng dẫn :** Trần Thanh Tùng

**Sinh viên thực hiện :**

1. Trần Quang Duy 51200583
2. Bùi Tuấn Đại 51200669
3. Vũ Ngọc Linh
4. Hoàng Ngọc Long

TP.HCM, THÁNG 4 NĂM 2014

**BÁO CÁO : BÀI TẬP LỚN SỐ 2**

**ĐỀ 5**

GVTH : Trần Thanh Tùng

Giờ học : Thứ 6 – tiết 5,6

Nhóm :

Sinh viên :

1. Trần Quang Duy 51200583
2. Bùi Tuấn Đại 51200669
3. Vũ Ngọc Linh 51201929
4. Hoàng Ngọc Long

# PHẦN 1: TẠO CSDL TRÊN ORACLE

1. **Tạo bảng dữ liệu**
2. **Các bảng dữ liệu**

Bảng 1 : Khách hàng (KhachHang)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSKH | VarChar2 | 12 | PK | ✓ |  | (NL|TE)[0-9]{10}  Tự tăng mã KH |
| HoTen | VarChar2 | 30 |  | ✓ |  |  |
| NgaySinh | Date |  |  | ✓ |  |  |
| GioiTinh | Varchar2 | 3 |  | ✓ |  | 'Nam','Nu' |
| QuocTich | Varchar2 | 20 |  | ✓ |  |  |
| SoDT | VarChar2 | 13 |  | ✓ |  | [+](84)[0-9]{9}[0-9]? |
| DiaChi | VarChar2 | 60 |  | ✓ |  |  |
| MSTTTG | Number |  | FK\_TrangThaiTG(MSTTTG) |  |  |  |
| MSPHH | Number |  | FK\_PhiVCHH(MSPHH) |  |  |  |
| MSCB | VarChar2 | 9 | FK\_ChuyenBay(MSCB) |  |  |  |
| KhoiLuongVuot | Float |  |  |  |  | KhoiLuongVuot >= 0 |

Bảng 2 : Khách hàng người lớn (KhachHangNL)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSKH | VarChar2 | 12 | PK  FK\_KhachHang(MSKH) | ✓ |  |  |
| CMND | VarChar2 | 9 |  | ✓ | ✓ |  |
| Passport | VarChar2 | 8 |  |  |  | [B][0-9]{7} |

Bảng 3 : Khách hàng trẻ em ( KhachHangTE)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSKH | VarChar2 | 12 | PK  FK\_KhachHang(MSKH) | ✓ |  |  |
| ThongTinKhaiSinh | VarChar2 | 60 |  |  |  |  |
| MSNGH | VarChar2 | 12 |  | ✓ |  |  |

Bảng 4 : Trạng thái tham gia ( TrangThaiTG)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSTTTG | Number |  | PK | ✓ |  | Tự động tăng |
| TenTT | VarChar2 | 2 |  | ✓ |  | 'TG','HH','DD' |
| PhanTramTG | Float |  |  | ✓ |  |  |

Bảng 5 : Phí vận chuyển hàng hóa ( PhiVCHH)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSPHH | Number |  | PK | ✓ |  | Tự động tăng |
| LoaiVe | VarChar2 | 3 |  | ✓ |  | 'VIP','PT' |
| TrongLuongDM | Number |  |  | ✓ |  |  |
| DonGia\_Kg | Number |  |  | ✓ |  |  |
| ThoiDiemApDung | Date |  |  | ✓ |  |  |

Bảng 6 : Chuyến bay ( ChuyenBay)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSCB | VarChar2 | 9 | PK | ✓ |  | (SA)[0-9]{7} |
| TrangThai | VarChar2 | 2 |  | ✓ |  | 'CB','DB','HB' |
| SoGheTrong | Number |  |  | ✓ |  |  |
| ThoiDiemDi | Date |  |  | ✓ |  |  |
| ThoiDiemDen | Date |  |  | ✓ |  |  |
| MSMB | VarChar2 | 6 | FK\_MayBay(MSMB) | ✓ |  |  |
| MSTB | Number |  | FK\_TuyenBay(MSTB) | ✓ |  |  |

Bảng 7 : Ghế khách ( GheKhach)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSKH | VarChar2 | 12 | PK  FK\_KhachHang(MSKH) | ✓ |  |  |
| GheSo | VarChar2 | 3 | PK | ✓ |  | [A-Z][0-9]{2} |
| Gia | Number |  |  | ✓ |  |  |

Bảng 8 : Máy bay ( MayBay)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSMB | VarChar2 | 6 | PK  FK\_LoaiMayBay(MSLMB) | ✓ |  | (SAP)[0-9]{3} |
| TongGioBay | Number |  |  | ✓ |  |  |
| NamSX | VarChar2 | 4 |  | ✓ |  |  |
| ThoiDiemSD | Date |  |  | ✓ |  | DD/MM/YYYY |
| MSLMB | Number |  |  | ✓ |  |  |

Bảng 9 : Loại máy bay ( LoaiMayBay)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSLMB | Number |  | PK | ✓ |  | Tự động tăng |
| HangSX | VarChar2 | 10 |  | ✓ |  |  |
| ModelMayBay | VarChar2 | 10 |  | ✓ |  |  |
| SoGheVip | Number |  |  | ✓ |  |  |
| SoGhePT | Number |  |  | ✓ |  |  |
| TongSoGhe | Number |  |  | ✓ |  |  |

Bảng 10 : Ghế ngồi ( GheNgoi)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSG | Number |  | PK | ✓ |  |  |
| GheSo | VarChar2 | 3 |  | ✓ |  | [A-Z][0-9]{2} |
| LoaiGhe | VarChar2 | 3 |  | ✓ |  | 'VIP','PT' |
| MSLMB | Number |  | FK\_LoaiMayBay(MSLMB) | ✓ |  |  |

Bảng 11 : Tuyến bay ( TuyenBay)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSTB | Number |  | PK | ✓ |  | Tự động tăng |
| MSG\_Di | Number |  | FK\_Ga(MSG) | ✓ |  |  |
| MSG\_Den | Number |  | FK\_Ga(MSG) | ✓ |  |  |

Bảng 12 : Ga (Ga)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSG | Number |  | PK | ✓ |  | Tự động tăng |
| TenSB | VarChar2 | 20 |  | ✓ |  |  |
| ThanhPho | VarChar2 | 20 |  | ✓ |  |  |
| QuocGia | VarChar2 | 20 |  | ✓ |  |  |

Bảng 13 : Thực phẩm ( ThucPham)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSTP | Number |  | PK | ✓ |  | Tự động tăng |
| Ten | VarChar2 | 20 |  | ✓ | ✓ |  |
| MoTa | VarChar2 | 60 |  |  |  |  |

Bảng 14 : Giá thực phẩm ( GiaThucPham)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSGTP | Number |  | PK | ✓ |  | Tự động tăng |
| Gia | Number |  |  | ✓ |  |  |
| NgayApDung | Date |  |  | ✓ |  | DD/MM/YYYY |
| MSTP | Number |  | FK\_ThucPham(MSTP) | ✓ |  |  |

Bảng 15 : Chuyến bay – Thực phẩm ( ChuyenBayThucPham)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSCB | VarChar2 | 9 | PK  FK\_ChuyenBay(MSCB) | ✓ |  |  |
| MSTP | Number |  | PK  FK\_ThucPham(MSTP) | ✓ |  |  |

Bảng 16 : Nhân viên ( NhanVien)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK | ✓ |  | (PC|TV|KT|DH|KS)[0-9]{10}  Tự động tăng |
| HoTen | VarChar2 | 30 |  | ✓ |  |  |
| NgaySinh | Date |  |  | ✓ |  | DD/MM/YYYY |
| GioiTinh | VarChar2 | 3 |  | ✓ |  | 'Nam','Nu' |
| QuocTich | VarChar2 | 20 |  | ✓ |  |  |
| CMND | VarChar2 | 9 |  | ✓ | ✓ |  |
| Passport | VarChar2 | 8 |  |  |  | [B][0-9]{7} |
| NgayVaoLam | Date |  |  | ✓ |  | DD/MM/YYYY |
| DiaChi | VarChar2 | 60 |  | ✓ |  |  |
| SoDT | VarChar2 | 13 |  | ✓ |  | [+](84)[0-9]{9}[0-9]? |
| TienLuong | Number |  |  | ✓ |  |  |

Bảng 17 : Bằng cấp ( BangCap)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSBC | Number |  | PK | ✓ |  | Tự động tăng |
| TenBangCap | VarChar2 | 20 |  | ✓ |  |  |
| TruongDaoTao | VarChar2 | 20 |  | ✓ |  |  |
| NamDat | VarChar2 | 4 |  | ✓ |  |  |
| MSNV | VarChar2 | 12 | FK\_NhanVien(MSNV) | ✓ |  |  |

Bảng 18 : Phi công ( PhiCong)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| LoaiPhiCong | VarChar2 | 2 |  | ✓ |  | 'CT','PL' |

Bảng 19 : Tiếp viên ( TiepVien)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| NgoaiNguTT | VarChar2 | 20 |  | ✓ |  |  |

Bảng 20 : Chi nhánh ( ChiNhanh)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSCN | Number |  | PK | ✓ |  | Tự động tăng |
| TenChiNhanh | VarChar2 | 20 |  | ✓ |  |  |
| ThanhPho | VarChar2 | 20 |  | ✓ |  |  |
| QuocGia | VarChar2 | 20 |  | ✓ |  |  |

Bảng 21 : Ca làm việc ( CaLamViec)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSCLV | VarChar2 | 2 | PK | ✓ |  | [C][1-3] |
| TuGio | VarChar2 | 5 |  | ✓ |  | hh:mm |
| DenGio | VarChar2 | 5 |  | ✓ |  | hh:mm |

Bảng 22 : Nhân viên mặt đất ( NhanVienMD)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| MSCN | Number |  | FK\_ChiNhanh(MSCN) | ✓ |  |  |
| MSNV\_Truong | VarChar2 | 12 | FK\_NhanVienMD(MSNV) | ✓ |  |  |

Bảng 23 : Nhân viên mặt đất – Ca làm việc ( NVMatDat\_CaLV)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| MSCLV | VarChar2 | 2 | PK  FK\_CaLamViec(MSCLV) | ✓ |  |  |
| NgayBatDau | Date |  |  | ✓ |  | DD/MM/YYYY |

Bảng 24 : Vận hành ( VanHanh)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| MSCB | VarChar2 | 9 | PK  FK\_ChuyenBay(MSCB) | ✓ |  |  |

Bảng 25 : Lái ( Lai)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| MSLMB | Number |  | PK  FK\_LoaiMayBay(MSLMB) | ✓ |  |  |

Bảng 26 : Kiểm tra ( KiemTra)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| MSCB | VarChar2 | 9 | PK  FK\_ChuyenBay(MSCB) | ✓ |  |  |

Bảng 27 : Chuyên môn bảo dưỡng ( ChuyenMonBD)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thuộc tính** | **Kiểu dữ liệu** | **Kích thước** | **Primary key/Foreign key (PK/FK\_<table2>)** | **Not null** | **Unique** | **Ràng buộc khác** |
| MSNV | VarChar2 | 12 | PK  FK\_NhanVien(MSNV) | ✓ |  |  |
| MSLMB | Number |  | PK  FK\_LoaiMayBay(MSLMB) | ✓ |  |  |

1. **SQL Code**
2. **Code create table**

------------Table No1------------

CREATE TABLE KhachHang

( MSKH VARCHAR2(12) NOT NULL

, HoTen VARCHAR2(30) NOT NULL

, NgaySinh DATE NOT NULL

, GioiTinh VARCHAR2(3) NOT NULL

, QuocTich VARCHAR2(20) NOT NULL

, SoDT VARCHAR2(13) NOT NULL

, DiaChi VARCHAR2(60) NOT NULL

, MSTTTG NUMBER

, MSPHH NUMBER

, MSCB VARCHAR2(9)

, KhoiLuongVuot FLOAT

, PRIMARY KEY (MSKH));

------------Table No2------------

CREATE TABLE KhachHangNL

( MSKH VARCHAR2(12) NOT NULL

, CMND VARCHAR2(9) UNIQUE NOT NULL

, Passport VARCHAR2(8)

, PRIMARY KEY (MSKH));

------------Table No3------------

CREATE TABLE KhachHangTE

( MSKH VARCHAR2(12) NOT NULL

, ThongTinKSinh VARCHAR2(60)

, MSNGH VARCHAR2(12) NOT NULL

, PRIMARY KEY (MSKH));

------------Table No4------------

CREATE TABLE TrangThaiTG

( MSTTTG NUMBER NOT NULL

, TenTT VARCHAR2(2) NOT NULL

, PhanTramTP FLOAT NOT NULL

, PRIMARY KEY (MSTTTG));

------------Table No5------------

CREATE TABLE PhiVCHH

( MSPHH NUMBER NOT NULL

, LoaiVe VARCHAR2(3) NOT NULL

, TrongLuongDM NUMBER NOT NULL

, DonGia\_Kg NUMBER NOT NULL

, ThoiDiemApDung DATE NOT NULL

, PRIMARY KEY (MSPHH));

------------Table No6------------

CREATE TABLE ChuyenBay

( MSCB VARCHAR2(9) NOT NULL

, TrangThai VARCHAR2(2) NOT NULL

, SoGheTrong NUMBER NOT NULL

, ThoiDiemDi DATE NOT NULL

, ThoiDiemDen DATE NOT NULL

, MSMB VARCHAR2(6) NOT NULL

, MSTB NUMBER NOT NULL

, PRIMARY KEY (MSCB));

------------Table No7------------

CREATE TABLE GheKhach

( MSKH VARCHAR2(12) NOT NULL

, GheSo VARCHAR2(3) NOT NULL

, Gia NUMBER NOT NULL

, PRIMARY KEY (MSKH, GheSo));

------------Table No8------------

CREATE TABLE MayBay

( MSMB VARCHAR2(6) NOT NULL

, TongGioBay NUMBER NOT NULL

, NamSX VARCHAR2(4) NOT NULL

, ThoiDiemSD DATE NOT NULL

, MSLMB NUMBER NOT NULL

, PRIMARY KEY (MSMB));

------------Table No9------------

CREATE TABLE LoaiMayBay

( MSLMB NUMBER NOT NULL

, HangSX VARCHAR2(10) NOT NULL

, ModelMayBay VARCHAR2(10) NOT NULL

, SoGheVip NUMBER NOT NULL

, SoGhePT NUMBER NOT NULL

, TongSoGhe NUMBER NOT NULL

, PRIMARY KEY (MSLMB));

------------Table No10------------

CREATE TABLE GheNgoi

( MSG NUMBER NOT NULL

, GheSo VARCHAR2(3) NOT NULL

, LoaiGhe VARCHAR2(3) NOT NULL

, MSLMB NUMBER NOT NULL

, PRIMARY KEY (MSG));

------------Table No11------------

CREATE TABLE TuyenBay

( MSTB NUMBER NOT NULL

, MSG\_Di NUMBER NOT NULL

, MSG\_Den NUMBER NOT NULL

, PRIMARY KEY (MSTB));

------------Table No12------------

CREATE TABLE Ga

( MSG NUMBER NOT NULL

, TenSB VARCHAR2(20) NOT NULL

, ThanhPho VARCHAR2(20) NOT NULL

, QuocGia VARCHAR2(20) NOT NULL

, PRIMARY KEY (MSG));

------------Table No13------------

CREATE TABLE ThucPham

( MSTP NUMBER NOT NULL

, Ten VARCHAR2(20) NOT NULL UNIQUE

, MoTa VARCHAR2(60)

, PRIMARY KEY (MSTP));

------------Table No14------------

CREATE TABLE GiaThucPham

( MSGTP NUMBER NOT NULL

, Gia NUMBER NOT NULL

, NgayApDung DATE NOT NULL

, MSTP NUMBER NOT NULL

, PRIMARY KEY (MSGTP));

------------Table No15------------

CREATE TABLE ChuyenBayThucPham

( MSCB VARCHAR2(9) NOT NULL

, MSTP NUMBER NOt NULL

, PRIMARY KEY (MSCB, MSTP));

------------Table No16------------

CREATE TABLE NhanVien

( MSNV VARCHAR2(12) NOT NULL

, HoTen VARCHAR2(30) NOT NULL

, NgaySinh DATE NOT NULL

, GioiTinh VARCHAR2(3) NOT NULL

, QuocTich VARCHAR2(20) NOT NULL

, CMND VARCHAR2(9) NOT NULL UNIQUE

, Passport VARCHAR2(8)

, NgayVaoLam DATE NOT NULL

, DiaChi VARCHAR2(60) NOT NULL

, SoDT VARCHAR2(13) NOT NULL

, TienLuong NUMBER NOT NULL

, PRIMARY KEY (MSNV));

------------Table No17------------

CREATE TABLE BangCap

( MSBC NUMBER NOT NULL

, TenBangCap VARCHAR2(20) NOT NULL

, TruongDaoTao VARCHAR2(20) NOT NULL

, NamDat VARCHAR2(4) NOT NULL

, MSNV VARCHAR2(12) NOT NULL

, PRIMARY KEY (MSBC));

------------Table No18------------

CREATE TABLE PhiCong

( MSNV VARCHAR2(12) NOT NULL

, LoaiPhiCong VARCHAR2(2) NOT NULL

, PRIMARY KEY (MSNV));

------------Table No19------------

CREATE TABLE TiepVien

( MSNV VARCHAR2(12) NOT NULL

, NgoaiNguTT VARCHAR2(20) NOT NULL

, PRIMARY KEY (MSNV));

------------Table No20------------

CREATE TABLE ChiNhanh

( MSCN NUMBER NOT NULL

, TenChiNhanh VARCHAR2(20) NOT NULL

, ThanhPho VARCHAR2(20) NOT NULL

, QuocGia VARCHAR2(20) NOT NULL

, PRIMARY KEY (MSCN));

------------Table No21------------

CREATE TABLE CaLamViec

( MSCLV VARCHAR2(2) NOT NULL

, TuGio VARCHAR2(5) NOT NULL

, DenGio VARCHAR2(5) NOT NULL

, PRIMARY KEY (MSCLV));

------------Table No22------------

CREATE TABLE NhanVienMD

( MSNV VARCHAR2(12) NOT NULL

, MSCN NUMBER NOT NULL

, MSNV\_Truong VARCHAR2(12) NOT NULL

, PRIMARY KEY (MSNV));

------------Table No23------------

CREATE TABLE NVMatDat\_CaLV

( MSNV VARCHAR2(12) NOT NULL

, MSCLV VARCHAR2(2) NOT NULL

, NgayBatDau DATE NOT NULL

, PRIMARY KEY (MSNV, MSCLV));

------------Table No24------------

CREATE TABLE VanHanh

( MSNV VARCHAR2(12) NOT NULL

, MSCB VARCHAR2(9) NOT NULL

, PRIMARY KEY (MSNV, MSCB));

------------Table No25------------

CREATE TABLE Lai

( MSNV VARCHAR(12) NOT NULL

, MSLMB NUMBER NOT NULL

, PRIMARY KEY (MSNV, MSLMB));

------------Table No26------------

CREATE TABLE KiemTra

( MSNV VARCHAR2(12) NOT NULL

, MSCB VARCHAR2(9) NOT NULL

, PRIMARY KEY (MSNV, MSCB));

------------Table No27------------

CREATE TABLE ChuyenMonBD

( MSNV VARCHAR(12) NOT NULL

, MSLMB NUMBER NOT NULL

, PRIMARY KEY (MSNV, MSLMB));

1. **Code tạo các ràng buộc mức bảng**

------------Table No1------------

ALTER TABLE KhachHang

ADD CONSTRAINT MSKH\_KH CHECK

(REGEXP\_LIKE(MSKH, '^(NL|TE)[0-9]{10}$')) ENABLE;

ALTER TABLE KhachHang

ADD CONSTRAINT SDT\_KH CHECK

(REGEXP\_LIKE(SoDT, '^[+](84)[0-9]{9}[0-9]?$')) ENABLE;

ALTER TABLE KhachHang

ADD CONSTRAINT GT\_KH CHECK

(GioiTinh IN ('Nam','Nu')) ENABLE;

ALTER TABLE KhachHang

ADD CONSTRAINT KLV\_KH CHECK

(KhoiLuongVuot >= 0) ENABLE;

------------Table No2------------

ALTER TABLE KhachHangNL

ADD CONSTRAINT PP\_KHNL CHECK

(REGEXP\_LIKE(Passport, '^[B][0-9]{7}$')) ENABLE;

------------Table No3------------

------------Table No4------------

ALTER TABLE TrangThaiTG

ADD CONSTRAINT TTT\_TTTG CHECK

(TenTT IN ('TG','HH','DD')) ENABLE;

------------Table No5------------

ALTER TABLE PhiVCHH

ADD CONSTRAINT LV\_PVCHH CHECK

(LoaiVe IN ('VIP','PT')) ENABLE;

------------Table No6------------

ALTER TABLE ChuyenBay

ADD CONSTRAINT MSCB\_CB CHECK

(REGEXP\_LIKE(MSCB, '^(SA)[0-9]{7}$')) ENABLE;

ALTER TABLE ChuyenBay

ADD CONSTRAINT TT\_CB CHECK

(TrangThai IN ('CB','DB','HB')) ENABLE;

------------Table No7------------

ALTER TABLE GheKhach

ADD CONSTRAINT GS\_GK CHECK

(REGEXP\_LIKE(GheSo, '^[A-Z][0-9]{2}$')) ENABLE;

------------Table No8------------

ALTER TABLE MayBay

ADD CONSTRAINT MSMB\_MB CHECK

(REGEXP\_LIKE(MSMB, '^(SAP)[0-9]{3}$')) ENABLE;

------------Table No9------------

------------Table No10------------

ALTER TABLE GheNgoi

ADD CONSTRAINT GS\_GN CHECK

(REGEXP\_LIKE(GheSo, '^[A-Z][0-9]{2}$')) ENABLE;

ALTER TABLE GheNgoi

ADD CONSTRAINT LG\_GN CHECK

(LoaiGhe IN ('VIP','PT')) ENABLE;

------------Table No11------------

------------Table No12------------

------------Table No13------------

------------Table No14------------

------------Table No15------------

------------Table No16------------

ALTER TABLE NhanVien

ADD CONSTRAINT MSNV\_NV CHECK

(REGEXP\_LIKE(MSNV, '^(PC|TV|KT|DH|KS)[0-9]{10}$')) ENABLE;

ALTER TABLE NhanVien

ADD CONSTRAINT GT\_NV CHECK

(GioiTinh IN ('Nam','Nu')) ENABLE;

ALTER TABLE NhanVien

ADD CONSTRAINT SDT\_NV CHECK

(REGEXP\_LIKE(SoDT, '^[+](84)[0-9]{9}[0-9]?$')) ENABLE;

ALTER TABLE NhanVien

ADD CONSTRAINT PP\_NV CHECK

(REGEXP\_LIKE(Passport, '^[B][0-9]{7}$')) ENABLE;

------------Table No17------------

------------Table No18------------

ALTER TABLE PhiCong

ADD CONSTRAINT LPC\_NV CHECK

(LoaiPhiCong IN ('CT','PL')) ENABLE;

------------Table No19------------

------------Table No20------------

------------Table No21------------

ALTER TABLE CaLamViec

ADD CONSTRAINT MSCLV\_CLV CHECK

(REGEXP\_LIKE(MSCLV, '^[C][1-3]$')) ENABLE;

------------Table No22------------

------------Table No23------------

------------Table No24------------

------------Table No25------------

------------Table No26------------

------------Table No27------------

1. **Code tạo các Foreign Key**

------------Table No1------------

ALTER TABLE KhachHang

ADD CONSTRAINT KH\_TTTG\_FK FOREIGN KEY (MSTTTG) REFERENCES TrangThaiTG(MSTTTG);

ALTER TABLE KhachHang

ADD CONSTRAINT KH\_PVC\_FK FOREIGN KEY (MSPHH) REFERENCES PhiVCHH(MSPHH);

ALTER TABLE KhachHang

ADD CONSTRAINT KH\_CB FOREIGN KEY (MSCB) REFERENCES ChuyenBay(MSCB);

------------Table No2------------

ALTER TABLE KhachHangNL

ADD CONSTRAINT NL\_KH FOREIGN KEY (MSKH) REFERENCES KhachHang(MSKH);

------------Table No3------------

ALTER TABLE KhachHangTE

ADD CONSTRAINT TE\_KH FOREIGN KEY (MSKH) REFERENCES KhachHang(MSKH);

------------Table No4------------

------------Table No5------------

------------Table No6------------

ALTER TABLE ChuyenBay

ADD CONSTRAINT CB\_MB FOREIGN KEY (MSMB) REFERENCES MayBay(MSMB);

ALTER TABLE ChuyenBay

ADD CONSTRAINT CB\_TB FOREIGN KEY (MSTB) REFERENCES TuyenBay(MSTB);

------------Table No7------------

ALTER TABLE GheKhach

ADD CONSTRAINT GK\_KH FOREIGN KEY (MSKH) REFERENCES KhachHang(MSKH);

------------Table No8------------

ALTER TABLE MayBay

ADD CONSTRAINT MB\_LMB FOREIGN KEY (MSLMB) REFERENCES LoaiMayBay(MSLMB);

------------Table No9------------

------------Table No10------------

ALTER TABLE GheNgoi

ADD CONSTRAINT GN\_LMB FOREIGN KEY (MSLMB) REFERENCES LoaiMayBay(MSLMB);

------------Table No11------------

ALTER TABLE TuyenBay

ADD CONSTRAINT TBDI\_G FOREIGN KEY (MSG\_Di) REFERENCES Ga(MSG);

ALTER TABLE TuyenBay

ADD CONSTRAINT TBDEN\_G FOREIGN KEY (MSG\_Den) REFERENCES Ga(MSG);

------------Table No12------------

------------Table No13------------

------------Table No14------------

ALTER TABLE GiaThucPham

ADD CONSTRAINT GTP\_TP FOREIGN KEY (MSTP) REFERENCES ThucPham(MSTP);

------------Table No15------------

ALTER TABLE ChuyenBayThucPham

ADD CONSTRAINT CBTP\_CB FOREIGN KEY (MSCB) REFERENCES ChuyenBay(MSCB);

ALTER TABLE ChuyenBayThucPham

ADD CONSTRAINT CBTP\_TP FOREIGN KEY (MSTP) REFERENCES ThucPham(MSTP);

------------Table No16------------

------------Table No17------------

ALTER TABLE BangCap

ADD CONSTRAINT BC\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

------------Table No18------------

ALTER TABLE PhiCong

ADD CONSTRAINT PC\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

------------Table No19------------

ALTER TABLE TiepVien

ADD CONSTRAINT TV\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

------------Table No20------------

------------Table No21------------

------------Table No22------------

ALTER TABLE NhanVienMD

ADD CONSTRAINT NVMD\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

ALTER TABLE NhanVienMD

ADD CONSTRAINT NVMD\_RE FOREIGN KEY (MSNV\_Truong) REFERENCES NhanVienMD(MSNV);

ALTER TABLE NhanVienMD

ADD CONSTRAINT NVMD\_CN FOREIGN KEY (MSCN) REFERENCES ChiNhanh(MSCN);

------------Table No23------------

ALTER TABLE NVMatDat\_CaLV

ADD CONSTRAINT NVCA\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

ALTER TABLE NVMatDat\_CaLV

ADD CONSTRAINT NVCA\_CLV FOREIGN KEY (MSCLV) REFERENCES CaLamViec(MSCLV);

------------Table No24------------

ALTER TABLE VanHanh

ADD CONSTRAINT VH\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

ALTER TABLE VanHanh

ADD CONSTRAINT VH\_CB FOREIGN KEY (MSCB) REFERENCES ChuyenBay(MSCB);

------------Table No25------------

ALTER TABLE Lai

ADD CONSTRAINT L\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

ALTER TABLE Lai

ADD CONSTRAINT L\_LMB FOREIGN KEY (MSLMB) REFERENCES LoaiMayBay(MSLMB);

------------Table No26------------

ALTER TABLE KiemTra

ADD CONSTRAINT KT\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

ALTER TABLE KiemTra

ADD CONSTRAINT KT\_CB FOREIGN KEY (MSCB) REFERENCES ChuyenBay(MSCB);

------------Table No27------------

ALTER TABLE ChuyenMonBD

ADD CONSTRAINT CMBD\_NV FOREIGN KEY (MSNV) REFERENCES NhanVien(MSNV);

ALTER TABLE ChuyenMonBD

ADD CONSTRAINT CMBD\_LMB FOREIGN KEY (MSLMB) REFERENCES LoaiMayBay(MSLMB);

1. **Tạo Index**
2. CREATE INDEX TTCB ON ChuyenBay(SoGheTrong, ThoiDiemDi, MSTB);
3. CREATE INDEX ghengoi ON GheNgoi(GheSo, MSLMB);

CREATE INDEX maybay ON MayBay(MSMB, MSLMB);

CREATE INDEX ghekhach ON GheKhach(GheSo, MSKH);

CREATE INDEX khachhang ON KhachHang(MSKH, MSTTTG, MSCB);

CREATE INDEX trangthai ON TrangThaiTG(MSTTTG, TenTT);

1. **STORE PROCEDURE, FUNCTION,TRIGGER**
2. **Trigger**
   * + 1. Đảm bảo tính nhất quán dữ liệu cho bảng LoaiMayBay: Tổng số ghế = Số ghế VIP + Số ghế phổ thông:

* Trigger code:

CREATE TRIGGER LoaiMayBay\_TongSoVe

BEFORE INSERT ON LoaiMayBay

FOR EACH ROW

BEGIN

IF (:new.TongSoGhe != :new.SoGheVip + :new.SoGhePT)

OR :new.TongSoGhe IS NULL

THEN :new.TongSoGhe := :new.SoGheVip + :new.SoGhePT;

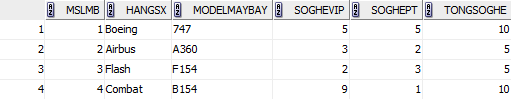
END IF;

END;

/

* Kết quả thực thi Trigger

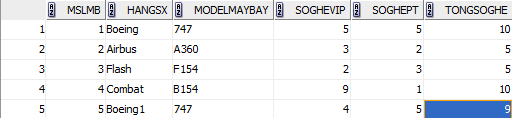
Bảng LoaiMayBay ban đầu :



Sau khi chạy câu lệnh sau :

INSERT INTO LoaiMayBay(HangSX,ModelMayBay,SoGheVip,SoGhePT,TongSoGhe) VALUES('Boeing1','747',4,5,10)

Bảng LoaiMayBay sẽ được cập nhật ô màu xanh tại dòng 5:



* + - 1. Đảm bảo nhất quán dữ liệu cho bảng MayBay với ChuyenBay: Tổng giờ bay của mỗi máy bay = tổng giờ bay ở từng chuyến bay sử dụng máy bay đó (Chỉ tính khi chuyến bay chuyển sang trạng thái Đã bay)
* Trigger code:

CREATE TRIGGER TongGioBay\_MayBay

BEFORE INSERT OR UPDATE OF TrangThai ON ChuyenBay

FOR EACH ROW

BEGIN

IF UPDATING THEN

IF (:old.TrangThai <> 'DB' AND :new.TrangThai = 'DB') THEN

UPDATE MayBay

SET TongGioBay = TongGioBay

+ EXTRACT(DAY FROM (:new.ThoiDiemDen - :new.ThoiDiemDi))\*24

+ EXTRACT(HOUR FROM (:new.ThoiDiemDen - :new.ThoiDiemDi))

+ EXTRACT(MINUTE FROM (:new.ThoiDiemDen - :new.ThoiDiemDi))/60

WHERE MSMB = :new.MSMB;

END IF;

ELSIF INSERTING THEN

IF (:new.TrangThai = 'DB') THEN

UPDATE MayBay

SET TongGioBay = TongGioBay

+ EXTRACT(DAY FROM (:new.ThoiDiemDen - :new.ThoiDiemDi))\*24

+ EXTRACT(HOUR FROM (:new.ThoiDiemDen - :new.ThoiDiemDi))

+ EXTRACT(MINUTE FROM (:new.ThoiDiemDen - :new.ThoiDiemDi))/60

WHERE MSMB = :new.MSMB;

END IF;

END IF;

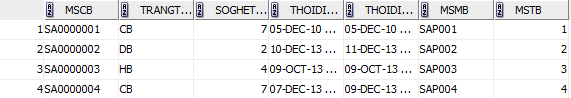
END;

/

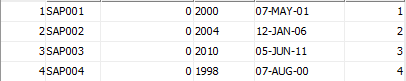
* Kết quả thực thi:

Bảng ban đầu :

Bảng CHUYENBAY ban đầu



Bảng MAYBAY ban đầu



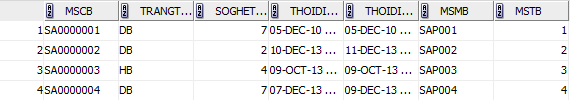
Sau khi chạy câu lệnh Update :

Update CHUYENBAY

Set TRANGTHAI =’DB’

WHERE TRANGTHAI=’CB’;

Bảng CHUYENBAY sau khi update



Bảng MAYBAY thay đổi lại như sau



1. **Procedures and Function**

Câu 1 :

CREATE OR REPLACE PROCEDURE update\_status

( p\_mskh IN KHACHHANG.MSKH%TYPE,

p\_msphh IN PhiVCHH.MSPHH%TYPE )

AS

BEGIN

UPDATE KhachHang

SET MSPHH=p\_msphh

WHERE MSKH=p\_mskh;

COMMIT;

END update\_status;

/

Câu 2:

--CAU2a

CREATE OR REPLACE PROCEDURE capnhat\_khoiluong

(p\_mskh IN KHACHHANG.MSKH%TYPE,

p\_msphh IN PhiVCHH.MSPHH%TYPE,

p\_trongluong IN NUMBER)

AS

v\_kldm NUMBER;

BEGIN

SELECT PhiVCHH.TrongLuongDM

INTO v\_kldm

FROM PhiVCHH

WHERE MSPHH=p\_msphh;

UPDATE KHACHHANG

SET KhoiLuongVuot=p\_trongluong-v\_kldm

WHERE MSPHH=p\_msphh AND MSKH=p\_mskh;

END capnhat\_khoiluong;

/

--CAU2b

CREATE OR REPLACE FUNCTION tinhtien

(p\_msphh IN PhiVCHH.MSPHH%TYPE,

p\_trongluong IN INT)

RETURN NUMBER

AS

v\_kldm INT;

v\_dongia INT;

CURSOR c1 IS

SELECT PhiVCHH.TrongLuongDM,PhiVCHH.DonGia\_Kg

FROM PhiVCHH

WHERE MSPHH=p\_msphh;

BEGIN

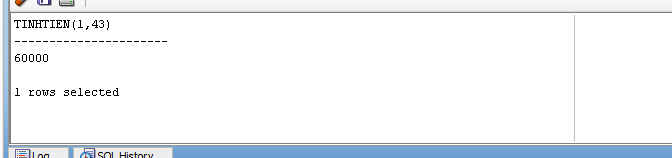
OPEN c1;

FETCH c1 INTO v\_kldm,v\_dongia;

close c1;

RETURN (p\_trongluong-v\_kldm)\*v\_dongia;

END tinhtien;

/

**PHẦN 3: THAO TÁC CƠ SỞ DỮ LIỆU**

1. **Insert**
2. Insert code:

--4

INSERT ALL

INTO TrangThaiTG(TenTT,PhanTramTP) VALUES('TG',0.0)

INTO TrangThaiTG(TenTT,PhanTramTP) VALUES('DD',0.1)

INTO TrangThaiTG(TenTT,PhanTramTP) VALUES('HH',0.8)

SELECT \* FROM dual;

--5

INSERT ALL

INTO PhiVCHH(LoaiVe,TrongLuongDM,DonGia\_KG,ThoiDiemApDung) VALUES('VIP',40,20000,TO\_DATE('08/03/2013','DD/MM/YYYY'))

INTO PhiVCHH(LoaiVe,TrongLuongDM,DonGia\_KG,ThoiDiemApDung) VALUES('PT',20,50000,TO\_DATE('09/10/2013','DD/MM/YYYY'))

INTO PhiVCHH(LoaiVe,TrongLuongDM,DonGia\_KG,ThoiDiemApDung) VALUES('VIP',30,15000,TO\_DATE('08/03/2010','DD/MM/YYYY'))

INTO PhiVCHH(LoaiVe,TrongLuongDM,DonGia\_KG,ThoiDiemApDung) VALUES('PT',15,40000,TO\_DATE('09/10/2010','DD/MM/YYYY'))

SELECT \* FROM dual;

--9

INSERT ALL

INTO LoaiMayBay(HangSX,ModelMayBay,SoGheVip,SoGhePT,TongSoGhe) VALUES('Boeing','747',5,5,10)

INTO LoaiMayBay(HangSX,ModelMayBay,SoGheVip,SoGhePT,TongSoGhe) VALUES('Airbus','A360',3,2,5)

INTO LoaiMayBay(HangSX,ModelMayBay,SoGheVip,SoGhePT,TongSoGhe) VALUES('Flash','F154',2,3,5)

INTO LoaiMayBay(HangSX,ModelMayBay,SoGheVip,SoGhePT,TongSoGhe) VALUES('Combat','B154',9,1,10)

SELECT \* FROM dual;

--8

INSERT ALL

INTO MayBay(MSMB,TongGioBay,NamSX,ThoiDiemSD,MSLMB) VALUES('SAP001',0,'2000',TO\_DATE('07/05/2001','DD/MM/YYYY'),1)

INTO MayBay(MSMB,TongGioBay,NamSX,ThoiDiemSD,MSLMB) VALUES('SAP002',0,'2004',TO\_DATE('12/01/2006','DD/MM/YYYY'),2)

INTO MayBay(MSMB,TongGioBay,NamSX,ThoiDiemSD,MSLMB) VALUES('SAP003',0,'2010',TO\_DATE('05/06/2011','DD/MM/YYYY'),3)

INTO MayBay(MSMB,TongGioBay,NamSX,ThoiDiemSD,MSLMB) VALUES('SAP004',0,'1998',TO\_DATE('07/08/2000','DD/MM/YYYY'),4)

SELECT \* FROM dual;

--10

INSERT ALL

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A01','PT',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A02','PT',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A03','PT',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A04','PT',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A05','PT',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B01','VIP',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B02','VIP',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B03','VIP',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B04','VIP',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B05','VIP',1)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A01','PT',2)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A02','PT',2)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B01','VIP',2)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B02','VIP',2)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B03','VIP',2)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A01','PT',3)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A02','PT',3)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A03','VIP',3)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B01','VIP',3)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B02','VIP',3)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('A01','PT',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B01','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B02','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B03','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B04','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B05','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B06','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B07','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B08','VIP',4)

INTO GheNgoi(GheSo,LoaiGhe,MSLMB) VALUES('B09','VIP',4)

SELECT \* FROM dual;

--12

INSERT ALL

INTO Ga(TenSB,ThanhPho,QuocGia) VALUES('Tan Son Nhat','Ho Chi Minh','Vietnam')

INTO Ga(TenSB,ThanhPho,QuocGia) VALUES('Noi Bai','Hanoi','Vietnam')

INTO Ga(TenSB,ThanhPho,QuocGia) VALUES('Da Nang','Da Nang','Vietnam')

INTO Ga(TenSB,ThanhPho,QuocGia) VALUES('New York','New York','USA')

INTO Ga(TenSB,ThanhPho,QuocGia) VALUES('Barcelona','Barcelona','Spain')

SELECT \* FROM dual;

--11

INSERT ALL

INTO TuyenBay(MSG\_DI,MSG\_DEN) VALUES(1,2)

INTO TuyenBay(MSG\_DI,MSG\_DEN) VALUES(2,1)

INTO TuyenBay(MSG\_DI,MSG\_DEN) VALUES(1,3)

INTO TuyenBay(MSG\_DI,MSG\_DEN) VALUES(3,1)

INTO TuyenBay(MSG\_DI,MSG\_DEN) VALUES(2,4)

INTO TuyenBay(MSG\_DI,MSG\_DEN) VALUES(2,5)

SELECT \* FROM dual;

--13

INSERT ALL

INTO ThucPham(Ten,Mota) VALUES('Com Ga','Co them cac mon chien, xao')

INTO ThucPham(Ten,Mota) VALUES('Banh Mi Op La','Kem theo cha ca, cha bong ')

INTO ThucPham(Ten,Mota) VALUES('Spagetti','Bo vien va nuoc sot')

INTO ThucPham(Ten,Mota) VALUES('Pho','Dac san Ha Noi')

INTO ThucPham(Ten,Mota) VALUES('Coca','Do uong co gas')

SELECT \* FROM dual;

--14

INSERT ALL

INTO GiaThucPham(Gia,NgayApDung,MSTP) VALUES(35000,TO\_DATE('07/02/1999','DD/MM/YYYY'),1)

INTO GiaThucPham(Gia,NgayApDung,MSTP) VALUES(30000,TO\_DATE('12/12/2014','DD/MM/YYYY'),2)

INTO GiaThucPham(Gia,NgayApDung,MSTP) VALUES(45000,TO\_DATE('03/02/2000','DD/MM/YYYY'),3)

INTO GiaThucPham(Gia,NgayApDung,MSTP) VALUES(50000,TO\_DATE('08/03/2003','DD/MM/YYYY'),4)

INTO GiaThucPham(Gia,NgayApDung,MSTP) VALUES(15000,TO\_DATE('02/03/2005','DD/MM/YYYY'),5)

SELECT \* FROM dual;

--16

INSERT ALL

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('PC','Tran Quang Duy', TO\_DATE('03/11/1984','DD/MM/YYYY'),'Nam','VN',123456789,'B1247856',TO\_DATE('03/06/2012','DD/MM/YYYY'),'137 Nhat Chi Mai ,P13,Q TB', '+840123456789',80000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('PC','Phan Thanh Huy', TO\_DATE('02/02/1990','DD/MM/YYYY'),'Nam','VN',987654321,'B7842215',TO\_DATE('18/03/2012','DD/MM/YYYY'),'KTX khu A Linh Trung', '+849876543210',60000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('PC','Phan Huynh Hai', TO\_DATE('07/03/1988','DD/MM/YYYY'),'Nam','VN',123454589,'B6948523',TO\_DATE('28/07/2011','DD/MM/YYYY'),'120 Ly Thuong Kiet, Q10', '+84012456789' ,55000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('PC','Nguyen Dinh Long', TO\_DATE('07/04/1992','DD/MM/YYYY'),'Nam','VN',123123459,'B1235678',TO\_DATE('10/08/2010','DD/MM/YYYY'),'20 Hoang Mai Ha Noi', '+840156154978',30000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('TV','Nguyen Hoang Tri', TO\_DATE('13/08/1986','DD/MM/YYYY'),'Nam','VN',111111111,'B5648792',TO\_DATE('07/03/2007','DD/MM/YYYY'),'37 Linh Xuan Da Nang', '+840611257985',63000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('TV','Tran The Huy', TO\_DATE('17/04/1982','DD/MM/YYYY'),'Nu', 'VN',131313131,'B3248718',TO\_DATE('07/09/2009','DD/MM/YYYY'),'123 Hoang Van Thu, Tan Binh','+847485961425',82000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('TV','Tran Phuoc Binh', TO\_DATE('11/11/1988','DD/MM/YYYY'),'Nam','VN',466113184,'B9876542',TO\_DATE('09/04/2011','DD/MM/YYYY'),'50 Le Dai Hanh Quan 12', '+84012456789' ,76000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('TV','Le Minh Son', TO\_DATE('07/05/1991','DD/MM/YYYY'),'Nu', 'VN',322148963,'B3478951',TO\_DATE('03/09/2010','DD/MM/YYYY'),'20 Nguyen Thi Minh, Quan 1', '+840145890140',28000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KS','Truong Trieu Hai', TO\_DATE('21/07/1979','DD/MM/YYYY'),'Nam','VN',342659751,'B9632581',TO\_DATE('01/01/2014','DD/MM/YYYY'),'2 Mai Linh Tay Ho', '+849541354678',67000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KS','Do Hoang Huy', TO\_DATE('05/02/1986','DD/MM/YYYY'),'Nu', 'VN',321613462,'B7418529',TO\_DATE('01/01/2014','DD/MM/YYYY'),'2 Nha Tho Duc Ba , Q1', '+848547621344',46000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KS','Tran Duc Thanh', TO\_DATE('17/06/1993','DD/MM/YYYY'),'Nam','VN',532134689,'B1472583',TO\_DATE('07/03/2006','DD/MM/YYYY'),'140 Hoang Phuc Hue', '+849687485132',70000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KS','Le Huynh Duy', TO\_DATE('12/12/1989','DD/MM/YYYY'),'Nu', 'VN',213644264,'B1498563',TO\_DATE('22/11/2012','DD/MM/YYYY'),'Duong minh hoang Da Nang', '+841157898415',30000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('DH','Le Cong Nhat', TO\_DATE('16/10/1993','DD/MM/YYYY'),'Nam','VN',367686314,'B6532478',TO\_DATE('01/01/2014','DD/MM/YYYY'),'50 Nam ki khoi nghia Q1', '+841134467796',40000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('DH','Nguyen Xuan Thai', TO\_DATE('01/12/1984','DD/MM/YYYY'),'Nu', 'VN',987654001,'B9648771',TO\_DATE('09/05/1960','DD/MM/YYYY'),'70 Minh Khai Q3', '+845487153547',90000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('DH','Nguyen Thanh Tam', TO\_DATE('09/08/1979','DD/MM/YYYY'),'Nam','VN',123413349,'B7898465',TO\_DATE('08/08/2010','DD/MM/YYYY'),'50 Duong gi day ', '+844856471513',50000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('DH','Vu Quynh Nhu', TO\_DATE('28/03/1975','DD/MM/YYYY'),'Nu', 'VN',275854278,'B3214561',TO\_DATE('08/03/2009','DD/MM/YYYY'),'80 Tran Hung Dao q3', '+841651487965',70000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KT','Nguyen Chi Thanh', TO\_DATE('10/10/1979','DD/MM/YYYY'),'Nam','VN',104077578,'B3212561',TO\_DATE('01/01/2013','DD/MM/YYYY'),'60 Nguyen Xi Q4', '+841472583690',20000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KT','Nguyen Hoang Huong',TO\_DATE('16/09/1969','DD/MM/YYYY'),'Nu', 'VN',427827575,'B3695515',TO\_DATE('10/08/2002','DD/MM/YYYY'),'29 No Trang Long Q5', '+849484798541',70000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KT','Tran Anh Gien', TO\_DATE('10/07/1975','DD/MM/YYYY'),'Nam','VN',004577858,'B7774444',TO\_DATE('13/02/1999','DD/MM/YYYY'),'66 Ho Chi Minh Q2', '+849685147698',90000000)

INTO NhanVien(MSNV,HoTen,NgaySinh,GioiTinh,QuocTich,CMND,PassPort,NgayVaoLam,DiaChi,SoDT,TienLuong) VALUES('KT','Ly Minh Minh', TO\_DATE('23/06/1988','DD/MM/YYYY'),'Nu', 'VN',552728576,'B9999654',TO\_DATE('09/03/2011','DD/MM/YYYY'),'69 Quang Trung Q Binh Thanh','+841234567890',35000000)

SELECT \* FROM dual;

--17

INSERT ALL

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN PHI CONG','HVHANGKHONG',2004,'PC0000000001')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CAO HOC MAY BAY', 'DHKYTHUAT', 1999,'KT0000000001')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('TIEP VIEN', 'HVHANGKHONG',2010,'TV0000000001')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('KY SU MAY', 'DHSPKT', 2000,'KT0000000001')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN KINH TE', 'DHKINHTE', 1998,'KS0000000001')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN PHI CONG','HVHANGKHONG',2002,'PC0000000002')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CAO HOC MAY BAY', 'DHKYTHUAT', 1990,'KT0000000002')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('TIEP VIEN', 'HVHANGKHONG',2012,'TV0000000002')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('KY SU MAY', 'DHSPKT', 2005,'KT0000000002')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN KINH TE', 'DHKINHTE', 1999,'KS0000000002')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN PHI CONG','HVHANGKHONG',2010,'PC0000000003')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CAO HOC MAY BAY', 'DHKYTHUAT', 1999,'KT0000000003')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('TIEP VIEN', 'HVHANGKHONG',2003,'TV0000000003')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('KY SU MAY', 'DHSPKT', 2005,'KT0000000003')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN KINH TE', 'DHKINHTE', 2001,'KS0000000003')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN PHI CONG','HVHANGKHONG',2004,'PC0000000004')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CAO HOC MAY BAY', 'DHKYTHUAT', 2007,'KT0000000004')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('TIEP VIEN', 'HVHANGKHONG',2008,'TV0000000004')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('KY SU MAY', 'DHSPKT', 2009,'KT0000000004')

INTO BangCap(TenBangCap,TruongDaoTao,NamDat,MSNV) VALUES('CU NHAN KINH TE', 'DHKINHTE', 2004,'KS0000000004')

SELECT \* FROM dual;

--18

INSERT ALL

INTO PhiCong(MSNV,LoaiPhiCong) VALUES('PC0000000001','CT')

INTO PhiCong(MSNV,LoaiPhiCong) VALUES('PC0000000002','CT')

INTO PhiCong(MSNV,LoaiPhiCong) VALUES('PC0000000003','PL')

INTO PhiCong(MSNV,LoaiPhiCong) VALUES('PC0000000004','PL')

SELECT \* FROM dual;

--19

INSERT ALL

INTO TiepVien(MSNV,NgoaiNguTT) VALUES('TV0000000001','ANH NHAT')

INTO TiepVien(MSNV,NgoaiNguTT) VALUES('TV0000000002','TRUNG HAN')

INTO TiepVien(MSNV,NgoaiNguTT) VALUES('TV0000000003','ANH PHAP')

INTO TiepVien(MSNV,NgoaiNguTT) VALUES('TV0000000004','ANH NGA')

SELECT \* FROM dual;

--20

INSERT ALL

INTO ChiNhanh(TenChiNhanh,ThanhPho,QuocGia) VALUES('Tan Son Nhat','Ho Chi Minh','Viet Nam')

INTO ChiNhanh(TenChiNhanh,ThanhPho,QuocGia) VALUES('Son Tra','Da Nang','Viet Nam')

INTO ChiNhanh(TenChiNhanh,ThanhPho,QuocGia) VALUES('Noi Bai','Ha Noi','Viet Nam')

INTO ChiNhanh(TenChiNhanh,ThanhPho,QuocGia) VALUES('New York','New York','USA')

INTO ChiNhanh(TenChiNhanh,ThanhPho,QuocGia) VALUES('Manchester','Manchester','USA')

SELECT \* FROM dual;

--21

INSERT ALL

INTO CaLamViec(MSCLV,TuGio,DenGio) VALUES('C1','06:00','11:00')

INTO CaLamViec(MSCLV,TuGio,DenGio) VALUES('C2','13:00','17:00')

INTO CaLamViec(MSCLV,TuGio,DenGio) VALUES('C3','19:00','23:00')

SELECT \* FROM dual;

--22

INSERT ALL

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KS0000000001',1,'DH0000000001')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KS0000000002',2,'DH0000000002')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KS0000000003',3,'DH0000000003')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KS0000000004',4,'DH0000000004')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('DH0000000001',1,'DH0000000001')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('DH0000000002',2,'DH0000000002')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('DH0000000003',3,'DH0000000003')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('DH0000000004',4,'DH0000000004')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KT0000000001',1,'DH0000000001')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KT0000000002',2,'DH0000000002')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KT0000000003',3,'DH0000000003')

INTO NhanVienMD(MSNV,MSCN,MSNV\_Truong) VALUES('KT0000000004',4,'DH0000000004')

SELECT \* FROM dual;

--23

INSERT ALL

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KS0000000001','C1',TO\_DATE('09/02/1997','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KS0000000002','C3',TO\_DATE('06/10/1996','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KS0000000003','C2',TO\_DATE('03/03/1990','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KS0000000004','C1',TO\_DATE('25/04/1976','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('DH0000000001','C2',TO\_DATE('13/03/1974','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('DH0000000002','C3',TO\_DATE('20/11/1984','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('DH0000000003','C1',TO\_DATE('07/12/1990','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('DH0000000004','C2',TO\_DATE('21/07/1986','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KT0000000001','C3',TO\_DATE('19/8/1982' ,'DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KT0000000002','C1',TO\_DATE('07/09/1992','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KT0000000003','C2',TO\_DATE('23/03/2014','DD/MM/YYYY'))

INTO NVMatDat\_CaLV(MSNV,MSCLV,NgayBatDau) VALUES('KT0000000004','C3',TO\_DATE('15/08/2000','DD/MM/YYYY'))

SELECT \* FROM dual;

--25

INSERT ALL

INTO Lai(MSNV,MSLMB) VALUES('PC0000000001',1)

INTO Lai(MSNV,MSLMB) VALUES('PC0000000002',2)

INTO Lai(MSNV,MSLMB) VALUES('PC0000000003',3)

INTO Lai(MSNV,MSLMB) VALUES('PC0000000004',4)

SELECT \* FROM dual;

--27

INSERT ALL

INTO ChuyenMonBD(MSNV,MSLMB) VALUES('KT0000000001',1)

INTO ChuyenMonBD(MSNV,MSLMB) VALUES('KT0000000002',2)

INTO ChuyenMonBD(MSNV,MSLMB) VALUES('KT0000000003',3)

INTO ChuyenMonBD(MSNV,MSLMB) VALUES('KT0000000004',4)

SELECT \* FROM dual;

--6

INSERT ALL

INTO ChuyenBay(MSCB,TrangThai,SoGheTrong,ThoiDiemDi,ThoiDiemDen,MSMB,MSTB) VALUES('SA0000001','CB',7,TO\_TIMESTAMP('05/12/2010 07:07', 'DD/MM/YYYY HH24:MI'),TO\_TIMESTAMP('05/12/2010 12:07', 'DD/MM/YYYY HH24:MI'),'SAP001',1)

INTO ChuyenBay(MSCB,TrangThai,SoGheTrong,ThoiDiemDi,ThoiDiemDen,MSMB,MSTB) VALUES('SA0000002','DB',2,TO\_TIMESTAMP('10/12/2013 07:15', 'DD/MM/YYYY HH24:MI'),TO\_TIMESTAMP('11/12/2013 07:15', 'DD/MM/YYYY HH24:MI'),'SAP002',2)

INTO ChuyenBay(MSCB,TrangThai,SoGheTrong,ThoiDiemDi,ThoiDiemDen,MSMB,MSTB) VALUES('SA0000003','HB',4,TO\_TIMESTAMP('09/10/2013 07:15', 'DD/MM/YYYY HH24:MI'),TO\_TIMESTAMP('09/10/2013 08:15', 'DD/MM/YYYY HH24:MI'),'SAP003',3)

INTO ChuyenBay(MSCB,TrangThai,SoGheTrong,ThoiDiemDi,ThoiDiemDen,MSMB,MSTB) VALUES('SA0000004','CB',7,TO\_TIMESTAMP('07/12/2013 07:15', 'DD/MM/YYYY HH24:MI'),TO\_TIMESTAMP('09/12/2013 09:15', 'DD/MM/YYYY HH24:MI'),'SAP004',4)

SELECT \* FROM dual;

--1

INSERT ALL

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('NL','NGUYEN NGOC LINH', TO\_DATE('16/09/1972','DD/MM/YYYY'),'Nam','VN', '+840123456789', '139 HOANG VAN THU,Q TAN BINH', 1,3,'SA0000001',1)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('NL','NHU VAN TRAN', TO\_DATE('23/01/1980','DD/MM/YYYY'),'Nam','VN', '+841546879410', '213 CONG HOA , Q TAN BINH', 2,2,'SA0000004',1)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('NL','LE THI BA', TO\_DATE('11/03/1986','DD/MM/YYYY'),'Nu', 'VN', '+849854321457', 'TAY HO , HA NOI', 3,4,'SA0000002',2)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('NL','NGUYEN THANH MINH', TO\_DATE('02/04/1990','DD/MM/YYYY'),'Nam','JP', '+843214879514', 'LINH TRUNG , THU DUC', 3,1,'SA0000003',4)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('NL','NGUYEN TUONG AN', TO\_DATE('03/07/2014','DD/MM/YYYY'),'Nam','US', '+84293123452', '130 PASTEUR , P10 , Q TAN BINH', 1,2,'SA0000002',1)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('NL','LE VAN HAI', TO\_DATE('25/09/2013','DD/MM/YYYY'),'Nam','AS', '+84201345662', '120 NHA CHI MAI , P13 , Q TAN BINH', 2,4,'SA0000001',3)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('TE','LE HOANG NGOC', TO\_DATE('07/03/2014','DD/MM/YYYY'),'Nu', 'UK', '+84201345672', '100 LY THUONG KIET , P 4 , Q TAN BINH ',3,3,'SA0000004',2)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('TE','LAI TUAN MANH', TO\_DATE('06/08/2010','DD/MM/YYYY'),'Nam','CHN','+840151484651', '7 TRAN HUNG DAO QUAN 1 , TP HCM', 1,1,'SA0000004',6)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('TE','LE HOANG GIANG', TO\_DATE('06/08/2010','DD/MM/YYYY'),'Nu', 'CHN','+840151123123', '9 HUNG DAO QUAN 10 , TP HCM', 1,1,'SA0000001',2)

INTO KhachHang(MSKH,HoTen,NgaySinh,GioiTinh,QuocTich,SoDT,DiaChi,MSTTTG,MSPHH,MSCB,KhoiLuongVuot) VALUES('TE','NGUYEN HUY KHANH', TO\_DATE('06/08/2010','DD/MM/YYYY'),'Nam','CHN','+840412312311', '11 TRAN HUNG DAO QUAN 1 , TP HCM', 1,1,'SA0000002',1)

SELECT \* FROM dual;

--2

INSERT ALL

INTO KhachHangNL(MSKH,CMND,PassPort) VALUES('NL0000000001',134784915,'B1244785')

INTO KhachHangNL(MSKH,CMND,PassPort) VALUES('NL0000000002',847951354,'B6894741')

INTO KhachHangNL(MSKH,CMND,PassPort) VALUES('NL0000000003',348795154,'B3214579')

INTO KhachHangNL(MSKH,CMND,PassPort) VALUES('NL0000000004',614579815,'B5145154')

INTO KhachHangNL(MSKH,CMND,PassPort) VALUES('NL0000000005',612313115,'B5854954')

INTO KhachHangNL(MSKH,CMND,PassPort) VALUES('NL0000000006',837581397,'B5304584')

SELECT \* FROM dual;

--3

INSERT ALL

INTO KhachHangTE(MSKH,MSNGH,ThongTinKSinh) VALUES('TE0000000001','NL0000000002','CON CUA ONG NGUYEN HOANG HAI ')

INTO KhachHangTE(MSKH,MSNGH,ThongTinKSinh) VALUES('TE0000000002','NL0000000002','CON CUA CHI CAO KIM PHUONG')

INTO KhachHangTE(MSKH,MSNGH,ThongTinKSinh) VALUES('TE0000000003','NL0000000001','CON CUA ONG HOANG THIEN HONG')

INTO KhachHangTE(MSKH,MSNGH,ThongTinKSinh) VALUES('TE0000000004','NL0000000003','CON CUA BA BUI PHI YEN')

SELECT \* FROM dual;

--7

INSERT ALL

INTO GheKhach(MSKH,GheSo,Gia) VALUES('NL0000000001','B01',1000000)

INTO GheKhach(MSKH,GheSo,Gia) VALUES('NL0000000002','A01',600000)

INTO GheKhach(MSKH,GheSo,Gia) VALUES('NL0000000003','C01',500000)

INTO GheKhach(MSKH,GheSo,Gia) VALUES('NL0000000004','A03',950000)

INTO GheKhach(MSKH,GheSo,Gia) VALUES('TE0000000001','B03',1100000)

INTO GheKhach(MSKH,GheSo,Gia) VALUES('TE0000000002','B04',600000)

INTO GheKhach(MSKH,GheSo,Gia) VALUES('TE0000000003','A02',220000)

INTO GheKhach(MSKH,GheSo,Gia) VALUES('TE0000000004','A03',320000)

SELECT \* FROM dual;

--15

INSERT ALL

INTO ChuyenBayThucPham(MSCB,MSTP) VALUES('SA0000001',1)

INTO ChuyenBayThucPham(MSCB,MSTP) VALUES('SA0000002',2)

INTO ChuyenBayThucPham(MSCB,MSTP) VALUES('SA0000003',3)

INTO ChuyenBayThucPham(MSCB,MSTP) VALUES('SA0000004',4)

SELECT \* FROM dual;

--24

INSERT ALL

INTO VanHanh(MSNV,MSCB) VALUES('PC0000000001','SA0000001')

INTO VanHanh(MSNV,MSCB) VALUES('PC0000000002','SA0000002')

INTO VanHanh(MSNV,MSCB) VALUES('PC0000000003','SA0000003')

INTO VanHanh(MSNV,MSCB) VALUES('PC0000000004','SA0000004')

SELECT \* FROM dual;

--26

INSERT ALL

INTO KiemTra(MSNV,MSCB) VALUES('KT0000000001','SA0000001')

INTO KiemTra(MSNV,MSCB) VALUES('KT0000000002','SA0000002')

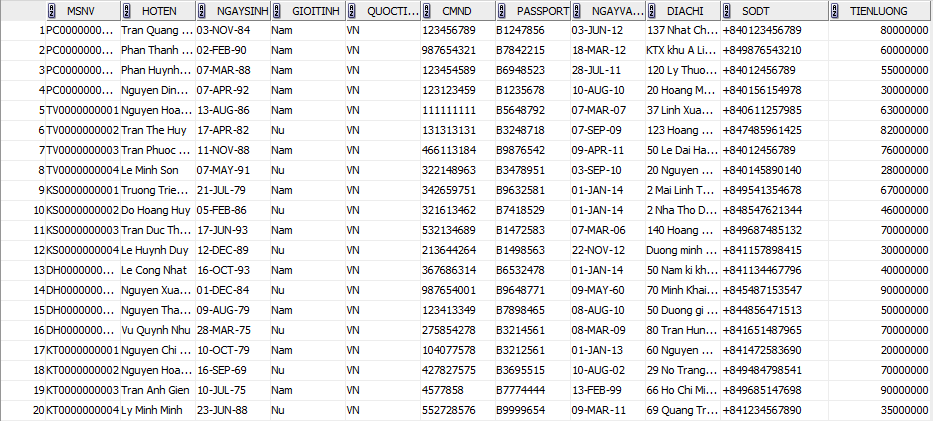
INTO KiemTra(MSNV,MSCB) VALUES('KT0000000003','SA0000003')

INTO KiemTra(MSNV,MSCB) VALUES('KT0000000004','SA0000004')

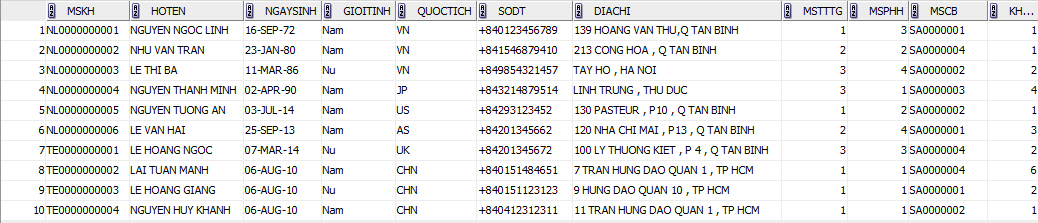
SELECT \* FROM dual;

1. Dữ liệu

Bảng NHANVIEN:



Bảng KHACHHANG:

1. **Update**
2. Update code
   1. Update lại trạng thái từ **chờ bay** sang **đang bay** của máy bay có MSCB=’SA0000001’

UPDATE ChuyenBay

SET TrangThai = 'DB'

WHERE MSCB = ‘SA0000001’ AND TrangThai = 'CB';

* 1. Update lại trạng thái từ **tham gia** sang **đổi** của khách hàng có MSKH là NL0000000001

UPDATE KHACHHANG

SET MSTTTG = '2'

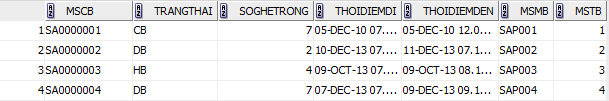
WHERE MSTTTG = (SELECT MSTTTG

FROM TrangThaiTG

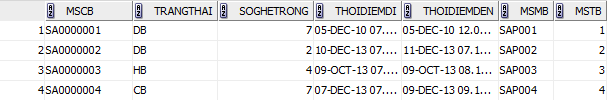
WHERE TenTT='TG') AND MSKH='NL0000000001';

1. Dữ liệu

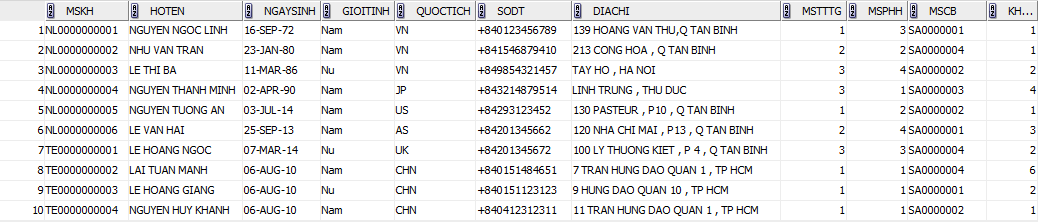
Bảng MayBay trước khi thực hiện lệnh:

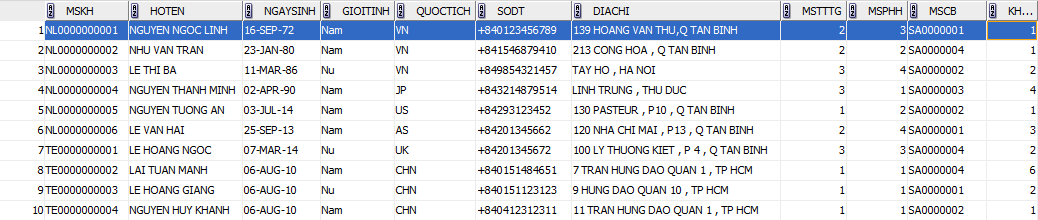


Sau khi thực hiện lệnh update a:



Bảng KHACHHANG trước khi thực hiện lệnh :



Bảng KHACHANG sau khi thực hiện lệnh:

1. **Delete**

-- Xoá thông tin của một thực phẩm phục vụ nào đó

DELETE FROM thucpham WHERE mstp = 5;

-- Trường hợp sẽ được thực hiện thành công:

Khởi tạo ràng buộc khoá ngoại cho các bảng GiaThucPham, ChuyenBayThucPham tham chiếu đến trường MSTP của bảng ThucPham kèm theo tham số ON DELETE CASCADE.

- Những bảng dữ liệu sẽ bị ảnh hưởng bởi thao tác xoá:

ThucPham, GiaThucPham, ChuyenBayThucPham

-- Trường hợp không thành công:

Khởi tạo ràng buộc khoá ngoại cho các bảng GiaThucPham, ChuyenBayThucPham tham chiếu đến trường MSTP của bảng ThucPham không kèm theo tham số ON DELETE.

1. **SELECT**

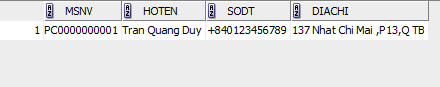
**1/ Câu A:**

**--**Liệt kê MSNV, Tên, Số DT, Địa chỉ của các nhân viên thuộc phi hành đoàn P tham gia chuyến bay SA0000001 .

SELECT NV.MSNV, NV.HoTen, NV.SoDT, NV.DiaChi

FROM NhanVien NV, VanHanh VH

WHERE NV.MSNV = VH.MSNV AND VH.MSCB = ‘SA0000001’;

****

**2/Câu B:**

**--**Liệt kê thông tin MSNV , Tên của các nhân viên trong một ca làm việc C1 từ 06:00 giờ đến 11:00 giờ

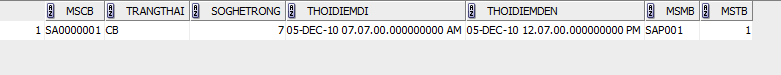
SELECT NVMD.MSNV, NV.HoTen FROM CaLamViec CLV , NVMatDat\_CaLV NC, NhanVienMD NVMD, NhanVien NV

WHERE CLV.MSCLV='C1' AND CLV.MSCLV=NC.MSCLV AND NC.MSNV=NVMD.MSNV AND NVMD.MSNV = NV.MSNV;

****

**3/Câu C**

--Liệt kê thông tin các chuyến bay còn chỗ trống với ngày là 15/05/2014 và mã số tuyến bay là 2.  
SELECT CB.MSCB, CB.TrangThai, CB.SoGheTrong, CB.ThoiDiemDi, CB.ThoiDiemDen, CB.MSMB, CB.MSTB  
FROM ChuyenBay CB  
WHERE CB.TrangThai = 'CB' AND CB.SoGheTrong > 0   
AND CB.ThoiDiemDi = '05-DEC-10 07.07.00.000000000 AM' AND CB.MSTB = '1’

****

**4/Câu D**

SELECT gheso FROM ghengoi

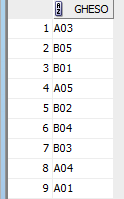
WHERE mslmb = (SELECT mslmb FROM maybay WHERE msmb = (SELECT msmb FROM chuyenbay WHERE mscb = 'SA0000001'))

AND gheso NOT IN

(SELECT gheso FROM (khachhang JOIN ghekhach ON khachhang.mskh = ghekhach.mskh)

JOIN trangthaitg ON khachhang.mstttg = trangthaitg.mstttg

WHERE mscb = 'SA0000001' AND tentt = 'TG');

****