**Thực hành**

**Bài tập 1:**

**KETQUA(MASV,MAMH,LANTHI,DIEM)**

**KHOA(MAKHOA,TENKHOA)**

**MONHOC(TENMONHOC,MAMONHOC,SOTIET)**

**SINHVIEN(MASV,HOSV,TENSV,NGAYSINH,PHAI,MAKHOA)**

**Thực hiện các yêu cầu sau sử dụng ngôn ngữ SQL:**

-Sua so tiet cua mon "Tri Tue Nhan Tao" lai 30 tiet

**UPDATE MOMHOC SOTIET=30 WHERE TENMONHOC =’Tri Tue Nhan Tao’;**  
-Xoa ket qua cua sinh vien co ma S001

**DELETE \* WHERE MASV = ‘S001’;**-Sua sinh vien 'Nguyen Thi Lam' thanh 'Nguyen Thanh Son' va phai thanh 'Nam'

**UPDATE SINHVIEN HOSV =’Nguyen Thanh’ AND TENSV=’Son’ AND PHAI = ‘Nam’ WHERE HOSV= ‘Nguyen Thi’ AND TENSV = ‘Lam’;**  
-Chuyen sinh vien 'Le Thi Lan Anh' sang khoa CNTT

**UPDATE SINHVIEN MAKHOA = ‘CNTT’ WHERE HOSV=’Le Thi Lan’ AND TENSV=’Anh’;**  
-Cho biet ket qua hoc tap cua sinh vien co ma S007

**SELECT \* FROM KETQUA**

**WHERE MASV = ‘S007’**  
-Liet ke nhung sinh vien sinh vao ngay 03 thang 07

**SELECT \* FROM SINHVIEN**

**WHERE GETDATE= 3 AND GETMONTH=7**  
-Cho biet danh sach sinh vien ma ho co chua chu Anh

**SELECT \* FROM SINHVIEN**

**WHERE HOSV = ‘Anh’**-Cho biet ket qua hoc tap gom: HOSV, TENSV, MAMH, LANTHI, DIEM cua sinhvien S007

**SELECT sv.HOSV, sv.TENSV, kq.MAMH, kq.LANTHI, kq.DIEM FROM SINHVIEN sv, KETQUA kq**

**WHERE sv.MASV = kq.MASV AND sv.MASV=’S007’**   
-Cho biet danh sach sinh vien Nam khoa 'Cong Nghe Thong Tin' sap tang dan theo ten

**SELECT DISTINT \* FROM SINHVIEN sv, KHOA k**

**WHERE sv.MAKHOA = k.MAKHOA AND sv.PHAI =’Nam’ AND k.TENKHOA =’Cong Nghe Thong Tin’**

**ORDER BY sv.TENSV ASC**-Cho biet danh sach cac mon hoc tren 40 tiet va co ten bat dau bang chu T

**SELECT \* FROM MONHOC WHERE SOTIET>40 AND TENMONHOC LIKE ‘T%’**  
-Liet ke nhung sinh vien tu 22 tuoi tro len khoa 'Cong Nghe Thong Tin' va khoa 'Dien Tu Vien Thong'

**SELECT DISTINT \* FROM SINHVIEN sv, KHOA k**

**WHERE sv.MAKHOA = k.MAKHOA AND sv.(YEAR(GETDATE()) - YEAR(NGAYSINH))>22 AND k.TENKHOA =’Cong Nghe Thong Tin’ AND k.TENKHOA=’Dien Tu Vien Thong’**

-Cho biet ten khoa nao khong co Sinh Vien

**SELECT TENKHOA FROM KHOA k**

**WHERE k.MAKHOA NOT IN (SELECT sv.MAKHOA FROM SINHVIEN sv )**  
-Cho biet danh sach sinh vien sinh vien chua hoc mon nao, thong tin gom Ho, Ten, Ngay sinh, Ten khoa

**SELECT sv.HOSV, sv.TENSV, sv.NGAYSINH, k.TENKHOA FROM SINHVIEN sv, KHOA k**

**WHERE sv.MAKHOA=k.MAKHOA AND NOT EXIST (SELECT DISTINT \* FROM SINHVIEN sv, KETQUA kq**

**WHERE sv.MASV=kq.MASV)**  
-Cho biet danh sach nhung sinh vien da hoc mon co ma AV, sap giam dan theo ngay sinh. Thong tin hien thi gom MASV,HOSV,TENSV,NGAYSINH,ten KHOA

**SELECT sv.MASV, sv.HOSV, sv.TENSV, sv.NGAYSINH, k.TENKHOA FROM SINHVIEN sv, KHOA k, KETQUA kq**

**WHERE sv.MAKHOA = k.MAKHOA AND sv.MASV = kq.MASV AND kq.MAMH LIKE ‘AV&’**

**ORDER BY sv.NGAYSINH DESC**  
-Cho biet ten sinh vien duoc diem cao nhat

**SELECT sv.HOSV, sv.TENSV FROM SINHVIEN sv, KETQUA kq**

**WHERE sv.MASV = kq.MASV AND kq.DIEM = (SELECT TOP 1 kq.DIEM FROM SINHVIEN sv, KETQUA kq**

**WHERE sv.MASV = kq.MASV**

**GROUP BY kq.MASV**

**ORDER BY AVG(kq.DIEM) DESC)**  
-Cho biet sinh vien nao rot mon CSDL o lan thi thu nhat

**SELECT DISTINT sv.HOSV, sv.TENSV FROM SINHVIEN sv, KETQUA kq, MONHOC mh**

**WHERE sv.MASV = kq.MASV AND mh.MAMONHOC = kq.MAMH AND mh.TENMONHOC = ‘Co So Du Lieu’ AND kq.LANTHI = 1 AND kq.DIEM<5**  
-Cho biet sinh vien nao rot mon CSDL o lan thi thu nhat ma chua thi lai lan 2

**SELECT DISTINT sv.HOSV, sv.TENSV FROM SINHVIEN sv, KETQUA kq, MONHOC mh**

**WHERE sv.MASV = kq.MASV AND mh.MAMONHOC = kq.MAMH AND mh.TENMONHOC = ‘Co So Du Lieu’ AND kq.LANTHI = 1 AND kq.DIEM<5 AND NOT EXISTS (SELECT \* FROM KETQUA kq1 WHERE kq1.LANTHI = 2)**  
-Dem so luong sinh vien cua khoa 'Quan Tri Kinh Doanh'

**SELECT COUNT(MASV) FROM SINHVIEN sv, KHOA k**

**WHERE sv.MAKHOA = k.MAKHOA AND k.TENKHOA = ‘Quan Tri Kinh Doanh’**  
-Dem so luong sinh vien cua tung khoa

**SELECT DISTINT k.MAKHOA, COUNT(MASV) AS SOLUONG FROM SINHVIEN sv, KHOA k**

**WHERE sv.MAKHOA = k.MAKHOA**   
-Cho biet ten khoa co dong sinh vien nhat

**SELECT k.TENKHOA FROM SINHVIEN sv, KHOA k**

**WHERE sv.MAKHOA = k.MAKHOA AND k.MAKHOA = (SELECT TOP 1 k.MAKHOA FROM SINHVIEN sv, KHOA k**

**WHERE sv.MASV = k.MAKHOA**

**GROUP BY k.MAKHOA**

**ORDER BY COUNT(sv.MAKHOA) DESC)**  
-Cho biet diem thap nhat cua moi mon hoc

**SELECT mh.MAMONHOC, mh.TENMONHOC, MAX(kq.DIEM)**

**FROM MONHOC mh, KETQUA kq**

**WHERE mh.MAMONHOC = kq.MAMH**

**GROUP BY mh.MAMONHOC, mh.TENMONHOC**-Cho biet ten mon hoc nao chua co sinh vien hoc

**SELECT mh.MAMONHOC, mh.TENMONHOC**

**FROM MONHOC mh, KETQUA kq1**

**WHERE mh.MAMONHOC = kq1.MAMH AND EXISTS (**

**SELECT sv.\* FROM SINHVIEN sv, KETQUA kq2**

**WHERE sv.MASV = kq2.MASV )**  
-Cho biet diem trung binh lan thi thu nhat cua sinh vien S004

**SELECT AVG(kq.DIEM) FROM KETQUA kq, SINHVIEN sv**

**WHERE sv.MASV = kq.MASV AND sv.MASV= ‘S004’ AND kq.LANTHI = 1**  
-Cho biet diem trung binh, diem lon nhat, diem nho nhat lan thu nhat cua tung sinh vien. Thong tin gom TenSV, TenKhoa, DiemTB

**SELECT sv.MASV, sv.TENSV, AVG(kq.DIEM) AS DIEMTB, MAX(kq.DIEM), MIN(kq.DIEM)**

**FROM SINHVIEN sv, KETQUA kq**

**WHERE sv.MASV = kq.MASV**

**GROUP BY sv.MASV, sv.TENSV**

**Bài 2: Lập bảng so sánh cơ sở dữ liệu tập trung và cơ sở dữ liệu phân tán**

**Bài 3: tìm hiểu tính năng phân tán dữ liệu trên SQL server**

**Key word: SQL server replication**