*-- Y4*

CREATE DATABASE **asm**;

USE asm;

CREATE TABLE **sach** (

    maSach INT *PRIMARY KEY*,

    tieuDe VARCHAR(20),

    nhaXuatBan VARCHAR(20),

    soTrang INT,

    soLuongBanSao INT,

    giaTien DOUBLE,

    ngayNhapKho DATE,

    viTriDatSach VARCHAR(20)

*CHECK* (soTrang >= 0 AND soLuongBanSao >= 0 AND giaTien >= 0)

);

CREATE TABLE **tacgia** (

    maSach INT *PRIMARY KEY*,

    tenTacGia VARCHAR(20)

);

CREATE TABLE **loaiSach** (

    maSach INT *PRIMARY KEY*,

    tenLoai VARCHAR(20)

);

CREATE TABLE **sinhvien** (

    maSV INT *PRIMARY KEY*,

    tenSV VARCHAR(20),

    chuyenNganhHoc VARCHAR(20)

);

CREATE TABLE **thesinhvien** (

    maSv INT *PRIMARY KEY*,

    ngayHetHan DATE

);

CREATE TABLE **lienhe** (

    maSV INT *PRIMARY KEY*,

    email VARCHAR(20),

    soDienThoai INT

);

CREATE TABLE **phieumuonsach** (

    soPhieu INT *PRIMARY KEY*,

    ngayMuon DATE,

    maSV INT

);

CREATE TABLE **chitietphieumuon** (

    soPhieu INT,

    maSach INT,

    ghiChu VARCHAR(255),

    ngayTra DATE,

    trangThai VARCHAR(10),

*PRIMARY KEY* (soPhieu, maSach)

);

ALTER TABLE tacgia

ADD *FOREIGN KEY* (maSach) *REFERENCES* sach (maSach);

ALTER TABLE loaisach

ADD *FOREIGN KEY* (maSach) *REFERENCES* sach (maSach);

ALTER TABLE thesinhvien

ADD *FOREIGN KEY* (maSV) *REFERENCES* sinhvien (maSV);

ALTER TABLE lienhe

ADD *FOREIGN KEY* (maSV) *REFERENCES* sinhvien (maSV);

ALTER TABLE phieumuonsach

ADD *FOREIGN KEY* (maSV) *REFERENCES* sinhvien (maSV);

ALTER TABLE chitietphieumuon

ADD *FOREIGN KEY* (soPhieu) *REFERENCES* phieumuonsach (soPhieu),

ADD *FOREIGN KEY* (maSach) *REFERENCES* sach (maSach);

*-- Y5*

INSERT INTO sach VALUES

    (1, 'Clean Code', 'NXB1', 462, 150, 150000, '2013-12-04', 'VT1'),

    (2, 'SQL Cook Book', 'NXB2', 572, 40, 100000, '2015-04-02', 'VT2'),

    (3, 'Code Complete 2', 'NXB3', 912, 150, 150000, '2014-02-03', 'VT3'),

    (4, 'Learn SQL', 'NXB4', 377, 30, 150000, '2014-01-02', 'VT4'),

    (5, 'The Clean Coder', 'NXB5', 244, 100, 100000, '2016-04-02', 'VT5'),

    (6, 'Chí Phèo', 'NXB6', 200, 70, 70000, '2014-04-02', 'VT6'),

    (7, 'Luật Du Lịch', 'NXB7', 150, 50, 50000, '2015-02-02', 'VT7');

INSERT INTO tacgia VALUES

    (1, 'Robert C. Martin'),

    (2, 'Anthony Molinaro, Robert de Greaf'),

    (3, 'Steve McConnell'),

    (4, 'Alan Beaulieu'),

    (5, 'Robert C. Martin'),

    (6, 'Nam Cao'),

    (7, '');

INSERT INTO loaisach VALUES

    (1, 'IT'),

    (2, 'IT'),

    (3, 'IT'),

    (4, 'IT'),

    (5, 'IT'),

    (6, 'Văn học'),

    (7, 'Du lịch');

INSERT INTO sinhvien VALUES

    (001, 'Nguyen Van A', 'IT'),

    (002, 'Nguyen Van B', 'IT'),

    (003, 'Nguyen Van C', 'IT'),

    (004, 'Nguyen Van D', 'IT'),

    (005, 'Nguyen Van E', 'IT');

INSERT INTO thesinhvien VALUES

    (001, '2025-02-03'),

    (002, '2023-05-06'),

    (003, '2024-06-23'),

    (004, '2024-08-24'),

    (005, '2023-09-21');

INSERT INTO lienhe VALUES

    (001, 'anv1@gmail.com, anv2@gmail.com', 1234567890),

    (002, 'bnv@gmail.com', 2151511112),

    (003, 'cnv@gmail.com', 5162782673),

    (004, 'dnv@gmail.com', 9706483741),

    (005, 'env@gmail.com', 7585445458);

INSERT INTO phieumuonsach VALUES

    (1, '2016-02-04', 002),

    (2, '2017-01-01', 001),

    (3, '2015-10-11', 002),

    (4, '2014-12-13', 005),

    (5, '2015-03-21', 003);

INSERT INTO chitietphieumuon VALUES

    (1, 1, 'ghi chu 1', '2016-02-08', 'Chưa trả'),

    (2, 1, 'ghi chu 2', '2017-01-06', 'Chưa trả'),

    (2, 2, 'ghi chu 3', '2017-01-06', 'Đã trả'),

    (2, 4, 'ghi chu 4', '2017-01-06', 'Chưa trả'),

    (3, 1, 'ghi chu 5', '2015-10-15', 'Đã trả'),

    (3, 4, 'ghi chu 6', '2015-10-15', 'Đã trả'),

    (4, 1, 'ghi chu 7', '2014-12-17', 'Chưa trả'),

    (5, 2, 'ghi chu 8', '2015-03-25', 'Đã trả');

*-- Y6*

*-- 1*

SELECT sach.maSach, sach.tieuDe,

sach.giaTien, tacgia.tenTacGia, loaisach.tenLoai FROM sach

JOIN loaisach ON loaisach.maSach = sach.maSach

JOIN tacgia ON tacgia.maSach = sach.maSach

WHERE loaisach.tenLoai = 'IT';

*-- 2*

SELECT phieumuonsach.\*, chitietphieumuon.maSach

FROM phieumuonsach

JOIN chitietphieumuon

ON chitietphieumuon.soPhieu = phieumuonsach.soPhieu

WHERE phieumuonsach.ngayMuon LIKE '2017-01%';

*-- 3*

SELECT chitietphieumuon.\*, phieumuonsach.ngayMuon

FROM phieumuonsach

JOIN chitietphieumuon

ON chitietphieumuon.soPhieu = phieumuonsach.soPhieu

WHERE chitietphieumuon.trangThai = 'Chưa trả'

ORDER BY phieumuonsach.ngayMuon;

*-- 4*

SELECT tenLoai, COUNT(tenLoai) AS 'So Luong'

FROM loaisach

GROUP BY tenLoai;

*-- 5*

SELECT COUNT(soPhieu) AS 'Luot moun sach' FROM chitietphieumuon;

*-- 6*

SELECT \* FROM sach

WHERE tieuDe LIKE '%SQL%';

*-- 7*

SELECT sinhvien.maSV, sinhvien.tenSV,

phieumuonsach.soPhieu, sach.tieuDe,

phieumuonsach.ngayMuon, chitietphieumuon.ngayTra

FROM sinhvien

JOIN phieumuonsach ON phieumuonsach.maSV = sinhvien.maSV

JOIN chitietphieumuon ON chitietphieumuon.soPhieu = phieumuonsach.soPhieu

JOIN sach ON sach.maSach = chitietphieumuon.maSach

ORDER BY phieumuonsach.ngayMuon;

*-- 8*

SELECT sach.\*, tacgia.tenTacGia, loaisach.tenLoai

FROM sach

JOIN tacgia ON tacgia.maSach = sach.maSach

JOIN loaisach ON loaisach.maSach = sach.maSach

JOIN chitietphieumuon ON chitietphieumuon.maSach = sach.maSach

GROUP BY chitietphieumuon.maSach

HAVING COUNT(chitietphieumuon.maSach) > 20;

*-- 9*

UPDATE sach

SET giaTien = giaTien \* 70 / 100

WHERE ngayNhapKho < '2014-01-01';

*-- 10*

UPDATE chitietphieumuon

SET trangThai = 'Đã trả'

WHERE soPhieu in (

    SELECT soPhieu FROM phieumuonsach

    WHERE maSV = 2

);

*-- 11*

SELECT chitietphieumuon.soPhieu, sinhvien.tenSV,

lienhe.email, sach.tieuDe, phieumuonsach.ngayMuon

FROM chitietphieumuon

JOIN phieumuonsach ON phieumuonsach.soPhieu = chitietphieumuon.soPhieu

JOIN sinhvien ON sinhvien.maSV = phieumuonsach.maSV

JOIN lienhe ON lienhe.maSV = sinhvien.maSV

JOIN sach ON sach.maSach = chitietphieumuon.maSach

WHERE chitietphieumuon.trangThai = 'Chưa trả';

*-- 12*

UPDATE sach

SET soLuongBanSao = soLuongBanSao + 5

WHERE maSach IN (

    SELECT sach.maSach FROM sach

    JOIN tacgia ON tacgia.maSach = sach.maSach

    JOIN loaisach ON loaisach.maSach = sach.maSach

    JOIN chitietphieumuon ON chitietphieumuon.maSach = sach.maSach

    GROUP BY chitietphieumuon.maSach

    HAVING COUNT(chitietphieumuon.maSach) > 10

);

*-- 13*

DELETE FROM phieumuonsach

WHERE soPhieu IN (

    SELECT phieumuonsach.soPhieu FROM phieumuonsach

    JOIN chitietphieumuon

    ON chitietphieumuon.soPhieu = phieumuonsach.soPhieu

    WHERE phieumuonsach.ngayMuon < '2010-01-01'

    AND chitietphieumuon.ngayTra < '2010-01-01'

);