USE HOSPITAL;

-- 假设部门名称是唯一的

CREATE TABLE DepartmentRealTable (

DPNAME CHAR(10) PRIMARY KEY, -- 使用部门名称作为主键

DPTEL CHAR(20)

);

-- 医生表使用部门名称作为外键

CREATE TABLE DoctorRealTable (

DNO CHAR(3) PRIMARY KEY, -- 医生编号仍然作为主键

DoctorName CHAR(20) UNIQUE NOT NULL, -- 假设医生名称是唯一的

Duty CHAR(20),

Gender BIT(1),

Age INT CHECK (Age >= 0 AND Age <= 150),

DPNAME CHAR(10), -- 使用部门名称作为外键

FOREIGN KEY (DPNAME) REFERENCES DepartmentRealTable(DPNAME)

);

CREATE TABLE PrescriptionRealTable (

PRESCRIPTION\_ID INT AUTO\_INCREMENT PRIMARY KEY, -- 自增整数主键

PatientName VARCHAR(20) NOT NULL, -- 患者名称，非空

DoctorName VARCHAR(20) NOT NULL, -- 医生名称，非空

DGNAME VARCHAR(20) NOT NULL, -- 药品名称，非空

NUM INT NOT NULL CHECK (NUM >= 0 AND NUM <= 150000), -- 数量，非负且不超过150000

PRESCRIPTION\_DATE DATE NOT NULL DEFAULT '1111-11-11' -- 处方日期，默认为'1111-11-11'

);

-- 创建病人和医生关系的表

CREATE TABLE PatientDoctorLink (

PatientNo CHAR(20),

DoctorName CHAR(20),

FOREIGN KEY (PatientNo) REFERENCES PatientRealTable(PatientNo),

FOREIGN KEY (DoctorName) REFERENCES DoctorRealTable(DoctorName)

);

-- 药品表使用药品名称作为主键（假设药品名称是唯一的）

CREATE TABLE DrugRealTable (

药品名称 CHAR(20) PRIMARY KEY, -- 使用药品名称作为主键

药品库存 INT CHECK(药品库存 >= 0),

价格 DECIMAL(10, 2) CHECK(价格 >= 0) -- 使用DECIMAL存储价格而不是INT

);

-- 药品入库表使用药品名称作为外键

CREATE TABLE DRUG\_STOCK\_IN (

STOCK\_IN\_ID INT AUTO\_INCREMENT PRIMARY KEY,

药品名称 CHAR(20) NOT NULL, -- 使用药品名称作为外键

NUM INT NOT NULL CHECK (NUM > 0),

STOCK\_IN\_DATE DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (药品名称) REFERENCES DrugRealTable(药品名称)

);

-- 处方表使用病人名称和医生名称作为外键（假设它们是唯一的）

CREATE TABLE PrescriptionRealTable (

处方号 INT AUTO\_INCREMENT PRIMARY KEY,

病人名称 CHAR(20), -- 使用病人名称作为外键（假设是唯一的）

医生名称 CHAR(20), -- 使用医生名称作为外键（假设是唯一的）

药品名称 CHAR(20), -- 使用药品名称作为外键（假设是唯一的）

NUM INT CHECK(NUM > 0), -- 假设NUM是开出的药品数量，应该大于0

PRESCRIPTION\_DATE DATE NOT NULL,

FOREIGN KEY (病人名称) REFERENCES PatientRealTable(PatientName), -- 假设PatientName是唯一的

FOREIGN KEY (医生名称) REFERENCES DoctorRealTable(DoctorName), -- 假设DoctorName是唯一的

FOREIGN KEY (药品名称) REFERENCES DrugRealTable(药品名称) -- 假设药品名称是唯一的

);

-- 药品出库表使用药品名称作为外键

CREATE TABLE DRUG\_STOCK\_OUT (

STOCK\_OUT\_ID INT AUTO\_INCREMENT PRIMARY KEY,

药品名称 CHAR(20) NOT NULL, -- 使用药品名称作为外键

NUM INT NOT NULL CHECK (NUM > 0),

STOCK\_OUT\_DATE DATETIME NOT NULL DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (药品名称) REFERENCES DrugRealTable(药品名称)

);

-- 费用表使用处方号作为外键（这里仍然使用编号）

CREATE TABLE CHARGES (

CHARGE\_ID INT AUTO\_INCREMENT PRIMARY KEY,

处方号 INT, -- 使用处方号作为外键（编号）

AMOUNT DECIMAL(10, 2) NOT NULL,

CHARGE\_DATE DATE NOT NULL,

FOREIGN KEY (处方号) REFERENCES PrescriptionRealTable(处方号)

);

INSERT INTO DepartmentRealTable (DPNAME, DPNO, DPTEL) VALUES

("内科","1","04512340987"),

("外科","2","04514521234"),

("妇科","3","04510987654"),

("儿科","4","04511234567"),

("神经科","5","04519283746"),

("精神科","6","04510987890"),

("五官科","7","04511029281"),

("放射线科","8","04518888888"),

("检验科","9","04518787878");

INSERT INTO DoctorRealTable (DNO, DNAME, DUTY, DSEX, DAGE, DPNO, DPHOTO\_PATH)

VALUES ("101", "李小明", "中级医师", 1, 18, "1", " "),

("102", "赵二猫", "正高级医师", 1, 56, "1", " "),

("103", "陈仁义", "初级医师", 0, 20, "1", " "),

("201", "陈省", "初级医师", 0, 21, "2", " "),

("202", "王雪清", "副高级医师", 0, 32, "2", " "),

("203", "赵彩结", "正高级医师", 0, 50, "2", " "),

("301", "王鹤男", "中级医师", 0, 20, "3", " "),

("302", "王风", "初级医师", 0, 31, "3", " "),

("303", "李文革", "正高级医师", 0, 51, "3", " "),

("401", "钱求和", "初级医师", 0, 24, "4", " "),

("402", "陈少杰", "中级医师", 1, 26, "4", " "),

("403", "拉普拉斯", "正高级医师", 1, 59, "4", " "),

("501", "赵意识", "初级医师", 0, 31, "5", " "),

("502", "陈打野", "中级医师", 1, 29, "5", " "),

("503", "欧上路", "初级医师", 1, 31, "5", " "),

("601", "陈小希", "初级医师", 0, 51, "6", " "),

("602", "陈欧皇", "中级医师", 1, 29, "6", " "),

("603", "傅杰", "副高级医师", 0, 46, "6", " "),

("701", "赵梦啥", "初级医师", 1, 59, "7", " "),

("702", "王来文", "正高级医师", 1, 32, "7", " "),

("703", "傅出", "副高级医师", 0, 42, "7", " "),

("801", "王疯子", "初级医师", 0, 21, "8", " "),

("802", "武曌", "中级医师", 1, 25, "8", " "),

("803", "蔡子杰", "初级医师", 0, 21, "8", " "),

("901", "谢好看", "初级医师", 0, 21, "9", " "),

("902", "陈真帅", "中级医师", 1, 20, "9", " "),

("903", "王猛", "初级医师", 1, 21, "9", " ");

insert into PATIENT values

("0001","赵一",1,20,"101","左脚踝粉碎性骨折", 1500.00),

("0002","钱二",0,23,"201","内出血", 3000.00),

("0003","竹三",0,19,"301","妇科炎症", 2200.00),

("0004","李来武",1,6,"401","多种抽动综合征", 800.00),

("0005","王系民",1,52,"501","帕金森综合征", 5500.00),

("0006","陈来文",0,54,"601","强迫症", 4000.00),

("0007","代乘一",1,22,"701","额骨骨髓炎", 1800.00),

("0008","高来基",0,34,"801","核磁共振检测", 3500.00),

("0009","吴总会",0,43,"901","艾滋病检测", 2500.00),

("0010","曹文龙",1,32,"102","锁骨粉碎性骨折", 1200.00),

("0011","陈高轶",1,26,"202","呼吸不畅", 1900.00),

("0012","陈温暖",1,29,"302","子宫内膜炎", 2700.00),

("0013","牛群",0,3,"402","结节性硬化", 1000.00),

("0014","李晶晶",0,61,"502","老年性痴呆", 6000.00),

("0015","李沁颍",1,23,"602","抑郁症", 3300.00),

("0016","刘馨雨",0,21,"702","海绵窦血栓性静脉炎", 2000.00),

("0017","方子健",1,34,"802","数字减影血管造影检测", 4500.00),

("0018","林威良",1,43,"902","血液白细胞检测", 2800.00),

("0019","王恩琦",0,27,"103","手指粉碎性骨折", 1300.00),

("0020","臧庆良",1,26,"203","消化不良", 1700.00),

("0021","李欢欢",0,18,"303","盆腔炎", 2400.00),

("0022","欧俊",1,6,"403","小儿高热", 900.00),

("0023","全淑敏",1,43,"503","孤独症", 5000.00),

("0024","龚敬博",1,51,"603","抑郁性神经症", 3800.00),

("0025","代除一",0,21,"703","球后视神经炎", 2100.00),

("0026","郝凡",0,22,"803","计算机X光检测", 3200.00),

("0027","黎小蓓",0,21,"903","血液常规检查", 1600.00);

insert into DRUG values

("0001","注射用苄星青霉素",123,24),

("0002","三磷酸腺苷二钠",213,34),

("0003","复方氨林巴比妥注射液",121,25),

("0004","精蛋白生物合成人胰岛素注射液",123,214),

("0005","胞磷胆碱钠",1010,28),

("0006","艾司唑仑",132,124),

("0007","头孢氨苄",12,43),

("0008","异烟肼",153,34),

("0009","去乙酰毛花苷",53,123),

("0010","盐酸氟桂利嗪",12,342),

("0011","甲氰咪呱",32,102),

("0012","甲硫咪唑",32,34),

("0013","丁胺卡那霉素",12,240),

("0014","硝酸异山梨酯",123,234),

("0015","多潘立酮",143,535),

("0016","硫酸沙丁胺醇",354,23),

("0017","喷托维林",3242,534),

("0018","枸橼酸氯米芬",544,53),

("0019","枸橼酸他莫昔芬",233,465),

("0020","血塞通注射液",532,42),

("0021","注射用头孢替唑钠",1232,23),

("0022","注射用盐酸头孢替安",124,27),

("0023","复方愈创木酚磺酸钾口服溶液",1344,23),

("0024","克林霉素",113,223),

("0025","盐酸胺碘酮",132,26),

("0026","拉米夫定",1030,23),

("0027","头孢克肟颗粒",1040,16),

("0028","氟哌噻吨美利曲辛片",123,53),

("0029","盐酸克林霉素棕榈酸酯分散片",135,53);

INSERT INTO PRESCRIPTION (PNO, DNO, DGNO, NUM, PRESCRIPTION\_DATE) VALUES

('0001', '101', '0001', 2, '2023-01-01'), -- 赵一，李小明医生，注射用苄星青霉素

('0002', '201', '0002', 1, '2023-01-02'), -- 钱二，陈省医生，三磷酸腺苷二钠

('0003', '301', '0003', 3, '2023-01-03'), -- 竹三，王鹤男医生，复方氨林巴比妥注射液

('0004', '401', '0004', 1, '2023-01-04'), -- 李来武，钱求和医生，精蛋白生物合成人胰岛素注射液

('0005', '501', '0005', 2, '2023-01-05'), -- 王系民，赵意识医生，胞磷胆碱钠

('0006', '601', '0006', 1, '2023-01-06'), -- 陈来文，陈小希医生，艾司唑仑

('0007', '701', '0007', 3, '2023-01-07'), -- 代乘一，赵梦啥医生，头孢氨苄

('0008', '801', '0008', 2, '2023-01-08'), -- 高来基，王疯子医生，异烟肼

('0009', '901', '0009', 1, '2023-01-09'), -- 吴总会，谢好看医生，去乙酰毛花苷

('0010', '102', '0010', 2, '2023-01-10'), -- 曹文龙，赵二猫医生，盐酸氟桂利嗪

('0011', '202', '0011', 1, '2023-01-11'), -- 陈高轶，王雪清医生，甲氰咪呱

('0012', '302', '0012', 3, '2023-01-12'), -- 陈温暖，王风医生，甲硫咪唑

('0013', '402', '0013', 1, '2023-01-13'), -- 牛群，陈少杰医生，丁胺卡那霉素

('0014', '502', '0014', 2, '2023-01-14'), -- 李晶晶，陈打野医生，硝酸异山梨酯

('0015', '602', '0015', 1, '2023-01-15'), -- 李沁颍，陈欧皇医生，多潘立酮

('0016', '702', '0016', 3, '2023-01-16'), -- 刘馨雨，王来文医生，硫酸沙丁胺醇

('0017', '802', '0017', 2, '2023-01-17'), -- 方子健，武曌医生，喷托维林

('0018', '902', '0018', 1, '2023-01-18'), -- 林威良，陈真帅医生，枸橼酸氯米芬

('0019', '103', '0019', 2, '2023-01-19'), -- 王恩琦，陈仁义医生，枸橼酸他莫昔芬

('0020', '203', '0020', 1, '2023-01-20'); -- 臧庆良，赵彩结医生，血塞通注射液

INSERT INTO CHARGES (PRESCRIPTION\_ID, AMOUNT, CHARGE\_DATE) VALUES

(1, 150.00, '2023-01-01'), -- 假设处方ID为1的收费记录

(2, 300.00, '2023-01-02'), -- 假设处方ID为2的收费记录

(3, 220.00, '2023-01-03'), -- 假设处方ID为3的收费记录

(4, 80.00, '2023-01-04'), -- 假设处方ID为4的收费记录（注意，金额是假设的）

(5, 550.00, '2023-01-05'), -- 假设处方ID为5的收费记录

(6, 400.00, '2023-01-06'), -- 假设处方ID为6的收费记录

(7, 180.00, '2023-01-07'), -- 假设处方ID为7的收费记录

(8, 350.00, '2023-01-08'), -- 假设处方ID为8的收费记录

(9, 250.00, '2023-01-09'), -- 假设处方ID为9的收费记录

(10, 120.00, '2023-01-10'); -- 假设处方ID为10的收费记录

-- 药品入库

DELIMITER //

CREATE TRIGGER trg\_after\_drug\_stock\_in

AFTER INSERT ON DRUG\_STOCK\_IN

FOR EACH ROW

BEGIN

-- 增加药品库存量

UPDATE DRUG

SET DGSTOCK = DGSTOCK + NEW.NUM

WHERE DGNO = NEW.DGNO;

END//

DELIMITER ;

DELIMITER //

CREATE TRIGGER trg\_update\_drug\_stock AFTER INSERT ON DRUG\_STOCK\_OUT

FOR EACH ROW

BEGIN

UPDATE DRUG

SET DGSTOCK = DGSTOCK - NEW.NUM

WHERE DGNO = NEW.DGNO;

END;

//

DELIMITER ;

-- 部门

CREATE VIEW DepartmentView AS

SELECT DPNAME, DPNO, DPTEL

FROM DEPARTMENT;

SELECT \* FROM DEPARTMENT WHERE DPNAME = '内科';

-- 医生

CREATE VIEW DoctorView AS

SELECT

D.DPHOTO\_PATH AS Photo,

D.DNO AS DoctorNo,

D.DNAME AS DoctorName,

D.DUTY AS Duty,

CASE WHEN D.DSEX = 1 THEN '男' ELSE '女' END AS Gender,

D.DAGE AS Age,

DEP.DPNAME AS DepartmentName

FROM

DOCTOR D

JOIN

DEPARTMENT DEP ON D.DPNO = DEP.DPNO;

SELECT \* FROM DoctorView WHERE DoctorName = '李小明';

-- 病人

CREATE VIEW PatientView AS

SELECT

P.PNO AS PatientNo,

P.PNAME AS PatientName,

CASE WHEN P.PSEX = 1 THEN '男' ELSE '女' END AS Gender,

P.PAGE AS Age,

D.DNAME AS DoctorName,

P.ILLNESS AS `Condition`,

P.BALANCE AS Balance

FROM

PATIENT P

JOIN

DOCTOR D ON P.DNO = D.DNO;

SELECT \* FROM PatientView WHERE LOWER(PatientName) = LOWER('赵一');

-- 药品

CREATE VIEW DrugView AS

SELECT

DGNO AS 药品编号,

DGNAME AS 药品名称,

DGSTOCK AS 药品库存,

DGPRICE AS 价格

FROM

DRUG;

SELECT \* FROM DrugView WHERE LOWER(药品名称) = LOWER('注射用苄星青霉素');

-- 处方

CREATE VIEW PrescriptionView AS

SELECT

PRESCRIPTION.PRESCRIPTION\_ID AS 处方号,

PATIENT.PNAME AS 病人名,

DOCTOR.DNAME AS 开方医生,

DRUG.DGNAME AS 药品名,

PRESCRIPTION.NUM AS 药品数量,

PRESCRIPTION.PRESCRIPTION\_DATE AS 处方日期

FROM

PRESCRIPTION

JOIN

PATIENT ON PRESCRIPTION.PNO = PATIENT.PNO

JOIN

DOCTOR ON PRESCRIPTION.DNO = DOCTOR.DNO

JOIN

DRUG ON PRESCRIPTION.DGNO = DRUG.DGNO;

SELECT \* FROM PrescriptionView WHERE 处方号 = 0001;

-- 收费

CREATE VIEW ChargesView AS

SELECT

PRESCRIPTION\_ID AS 处方号,

AMOUNT AS 收费金额,

CHARGE\_DATE AS 收费日期

FROM

CHARGES;

INSERT INTO PrescriptionRealTable (PRESCRIPTION\_ID, PatientName, DoctorName, DGNAME, NUM, PRESCRIPTION\_DATE) VALUES

( "0001 ", "李小明 ", "赵一 ", "注射用苄星青霉素 ", 9, "2023-01-01 ")

( "0002 ", "陈省 ", "钱二 ", "三磷酸腺苷二钠 ", 6, "2023-01-02 ")

( "0003 ", "王鹤男 ", "竹三 ", "复方氨林巴比妥注射液 ", 2, "2023-01-03 ")

( "0004 ", "钱求和 ", "李来武 ", "精蛋白生物合成人胰岛素注射液 ", 7, "2023-01-04 ")

( "0005 ", "赵意识 ", "王系民 ", "胞磷胆碱钠 ", 1, "2023-01-05 ")

( "0006 ", "陈小希 ", "陈来文 ", "艾司唑仑 ", 10, "2023-01-06 ")

( "0007 ", "赵梦啥 ", "代乘一 ", "头孢氨苄 ", 4, "2023-01-07 ")

( "0008 ", "王疯子 ", "高来基 ", "异烟肼 ", 8, "2023-01-08 ")

( "0009 ", "谢好看 ", "吴总会 ", "去乙酰毛花苷 ", 5, "2023-01-09 ")

( "0010 ", "赵二猫 ", "曹文龙 ", "盐酸氟桂利嗪 ", 3, "2023-01-10 ")

( "0011 ", "王雪清 ", "陈高轶 ", "甲氰咪呱 ", 9, "2023-01-11 ")

( "0012 ", "王风 ", "陈温暖 ", "甲硫咪唑 ", 7, "2023-01-12 ")

( "0013 ", "陈少杰 ", "牛群 ", "丁胺卡那霉素 ", 2, "2023-01-13 ")

( "0014 ", "陈打野 ", "李晶晶 ", "硝酸异山梨酯 ", 6, "2023-01-14 ")

( "0015 ", "陈欧皇 ", "李沁颍 ", "多潘立酮 ", 1, "2023-01-15 ")

( "0016 ", "王来文 ", "刘馨雨 ", "硫酸沙丁胺醇 ", 10, "2023-01-16 ")

( "0017 ", "武曌 ", "方子健 ", "喷托维林 ", 4, "2023-01-17 ")

( "0018 ", "陈真帅 ", "林威良 ", "枸橼酸氯米芬 ", 8, "2023-01-18 ")

( "0019 ", "陈仁义 ", "王恩琦 ", "枸橼酸他莫昔芬 ", 5, "2023-01-19 ")

( "0020 ", "赵彩结 ", "臧庆良 ", "血塞通注射液 ", 3, "2023-01-20 ")