

```

CREATE TABLE Staff (
    staffNo INT NOT NULL,
    firstName varchar(25),
    lastName varchar(25),
    address varchar(255),
    phoneNo varchar(15),
    position varchar(25),
    weeklyHours INT,
    shift char(5),
    CONSTRAINT PK_Staff PRIMARY KEY (staffNo)
);

INSERT INTO Staff (staffNo, firstName, lastName, address, phoneNo,
position, weeklyHours, shift)
VALUES ('1','Joe','Johnson','123 State Street, Chicago, IL','630-123-
4567','Charge Nurse','60','early');
INSERT INTO Staff VALUES ('2','Mike','Murphy','456 Lane, Evanston,
IL','630-987-6543','Nurse','35','late');
INSERT INTO Staff (staffNo, firstName, lastName, address, phoneNo,
position, weeklyHours, shift)
VALUES ('3','George','Brown','789 Circle, Evanston, IL','630-456-
7891','Consultant','45','night');
INSERT INTO Staff VALUES ('4','Paul','Jones','438 Block, Evanston,
IL','630-486-8954','Charge Nurse','50','early');
INSERT INTO Staff (staffNo, firstName, lastName, address, phoneNo,
position, weeklyHours, shift)
VALUES ('5','Melissa','Owens','346 Street, Evanston, IL','630-459-
7865','Consultant','40','early');

CREATE TABLE Specialist (
    staffno INT NULL,
    specialistType varchar (20) NULL,
    CONSTRAINT PK_Specialist PRIMARY KEY (specialistType, staffno),
    CONSTRAINT FK_Staff FOREIGN KEY (staffNo) REFERENCES Staff(staffNo)
);

INSERT INTO Specialist VALUES ('2','Specialist1');
INSERT INTO Specialist VALUES ('4','Specialist2');

CREATE TABLE Ward (
    wardNo varchar(5) NOT NULL,
    wardName char(10),
    phoneNo varchar(15),
    location varchar(10),
    numberOfBeds INT,
    staffNo INT NOT NULL,
    CONSTRAINT PK_Ward PRIMARY KEY (wardNo),
    CONSTRAINT FK_ChargeNurse FOREIGN KEY (staffNo) REFERENCES
Staff(staffNo)
);

```

```

INSERT INTO Ward VALUES ('A1','WestWing','630-594-4648','Block
A','50','1');
INSERT INTO Ward VALUES ('B2','SouthWing','630-594-4786','Block
B','55','4');
INSERT INTO Ward VALUES ('C3','NorthWing','630-594-4864','Block
C','60','1');
INSERT INTO Ward VALUES ('D4','EastWing','630-594-4956','Block
D','65','4');

```

```

CREATE TABLE Bed (
    bedNo INT NOT NULL,
    wardNo varchar(5) NOT NULL,
    CONSTRAINT PK_Bed PRIMARY KEY (bedNo, wardNo),
    CONSTRAINT FK_Ward FOREIGN KEY (wardNo) REFERENCES Ward(wardNo)
);

```

```

INSERT INTO Bed VALUES ('90','A1');
INSERT INTO Bed VALUES ('80','A1');
INSERT INTO Bed VALUES ('70','B2');
INSERT INTO Bed VALUES ('60','C3');
INSERT INTO Bed VALUES ('50','D4');

```

```

CREATE TABLE LocalClinic (
    clinicNo INT NOT NULL,
    docName varchar(50) NOT NULL,
    docAddress varchar(255),
    docPhoneNo varchar(15),
    CONSTRAINT PK_LocalClinic PRIMARY key (clinicNo, docName)
);

```

```

INSERT INTO LocalClinic VALUES('54','Johnson','9420 Lane, Chicago,
IL','888-659-4823');
INSERT INTO LocalClinic VALUES('23','Jones','2390 Street, Chicago,
IL','498-498-8453');
INSERT INTO LocalClinic VALUES('75','Brady','2420 Circle, Evanston,
IL','595-458-7845');
INSERT INTO LocalClinic VALUES('87','Jordan','9350 Blvd, Evanston,
IL','569-564-4565');

```

```

CREATE TABLE StaffSchedule (
    weekNo INT NOT NULL,
    shift char(5) NOT NULL,
    staffNo INT NOT NULL,
    wardNo varchar(5) NOT NULL,
    CONSTRAINT PK_StaffSchedule PRIMARY KEY (staffNo, wardNo, weekNo),
    CONSTRAINT FK_StaffOnSchedule FOREIGN KEY (staffNo) REFERENCES
staff(staffNo),
    CONSTRAINT FK_WardOnSchedule FOREIGN KEY (wardNo) REFERENCES
ward(wardNo)
);

```

```

INSERT INTO StaffSchedule VALUES('5','early','1','A1');
INSERT INTO StaffSchedule VALUES('5','late','2','A1');
INSERT INTO StaffSchedule VALUES('24','night','3','B2');
INSERT INTO StaffSchedule VALUES('40','early','4','C3');
INSERT INTO StaffSchedule VALUES('24','late','5','D4');

```

```

CREATE TABLE Supplier (
    supplierNo INT NOT NULL,
    supplierName varchar(50),
    supplierAddress varchar(255),
    supplierPhoneNo varchar(15) NULL,
    supplierFaxNo varchar(15),
    CONSTRAINT PK_Supplier PRIMARY KEY (supplierNo)
);

```

```

INSERT INTO Supplier VALUES ('45','MedSupply','2463 Street, Miami,
FL','548-484-6476','548-484-6477');
INSERT INTO Supplier (supplierNo, supplierName, supplierAddress,
supplierFaxNo)
VALUES ('346','MedLine','3039 Lane, Los Angeles, CA','786-787-3969');
INSERT INTO Supplier VALUES ('67','BudgetSupply','9330 Blvd, New York,
NY','595-564-6877','595-564-6878');
INSERT INTO Supplier (supplierNo, supplierName, supplierAddress,
supplierFaxNo)
VALUES ('48','InnovativeSupply','3249 Circle, Dallas, TX','632-594-9762');
INSERT INTO Supplier VALUES ('23','QualitySupply','9023 Road, Witchita,
KS','324-486-4497','324-486-4498');

```

```

CREATE TABLE GeneralSupply (
    itemNo INT NOT NULL,
    itemName varchar(50),
    itemDesc varchar(100),
    stockQuantity INT,
    reorderLevel INT,
    unitCost INT,
    supplierNo INT NOT NULL,
    CONSTRAINT PK_GeneralSupply PRIMARY KEY (itemNo),
    CONSTRAINT FK_Supplier FOREIGN KEY (supplierNo) REFERENCES
Supplier(supplierNo)
);

```

```

INSERT INTO GeneralSupply VALUES
('6454','Gauze','Surgical','4775','2465','10','45');
INSERT INTO GeneralSupply VALUES ('65494','Bandages','Non-
Surgical','235','2','2','346');
INSERT INTO GeneralSupply VALUES ('341354','Ointment','Non-
Surgical','3468','213','235','67');
INSERT INTO GeneralSupply VALUES
('49494','Masks','Surgical','3467','6','4','48');
INSERT INTO GeneralSupply VALUES
('45645','Gloves','Surgical','4375','135','5','23');

```

```

CREATE TABLE PharmSupply (
    drugNo INT NOT NULL,
    drugName varchar(50),
    drugDesc varchar(255),
    dosage INT,
    stockQuantity INT,
    reorderLevel INT,
    unitCost INT,
    supplierNo INT NOT NULL,
    CONSTRAINT PK_Drug PRIMARY KEY (drugNo),
    CONSTRAINT FK_SupplierPharm FOREIGN KEY (supplierNo) REFERENCES
Supplier(supplierNo)
);

```

```

INSERT INTO PharmSupply VALUES ('234',
    'Aspirin','Pharmaceutical','10','356','28','5','45');
INSERT INTO PharmSupply VALUES ('235',
    'Tylenol','Pharmaceutical','5','867','8','9','346');
INSERT INTO PharmSupply VALUES
('7','Ibuprofen','Pharmaceutical','92','235','4','24','67');
INSERT INTO PharmSupply VALUES
('523','Advil','Pharmaceutical','438','624','928','29','48');
INSERT INTO PharmSupply VALUES
('76','Cortisol','Pharmaceutical','96','9248','34','3','23');

```

```

CREATE TABLE Requisition (
    reqNo INT NOT NULL,
    staffNo INT NOT NULL,
    wardNo varchar(5) NOT NULL,
    itemNo INT NULL,
    drugNo INT NULL,
    quantReq varchar(25),
    orderDate DATE NOT NULL,
    dateReceived DATE,
    CONSTRAINT PK_Requisition PRIMARY KEY (reqNo),
    CONSTRAINT FK_ReqStaff FOREIGN KEY (staffNo) REFERENCES
Staff(staffNo),
    CONSTRAINT FK_ReqGeneralSupply FOREIGN KEY (itemNo) REFERENCES
GeneralSupply(itemNo),
    CONSTRAINT FK_ReqPharmSupply FOREIGN KEY (drugNo) REFERENCES
PharmSupply(drugNo)
);

```

```

INSERT INTO Requisition VALUES ('34', '1', 'A1', '6454', '234', '4', '01-
mar-2021', '01-mar-2021');
INSERT INTO Requisition VALUES ('23', '4', 'B2', '65494', '235', '3', '01-
mar-2021', '01-mar-2021');
INSERT INTO Requisition VALUES ('67', '1', 'C3', '341354', '7', '6', '03-
mar-2021', '03-mar-2021');
INSERT INTO Requisition VALUES ('65', '4', 'D4', '49494', '523', '5', '04-
mar-2021', '04-mar-2021');

```

```
INSERT INTO Requisition VALUES ('89', '1', 'A1', '45645', '76', '1', '05-mar-2021', '05-mar-2021');
```

```
CREATE TABLE Patient (  
    patientNo INT NOT NULL,  
    firstName varchar(20),  
    lastName varchar(20),  
    address varchar(255),  
    phoneNo varchar(15),  
    dob DATE,  
    maritalStatus char(1),  
    docName varchar(50) NULL,  
    clinicNo INT NULL,  
    immFamPhoneNo varchar(15) NULL,  
    CONSTRAINT PK_Patient PRIMARY KEY (patientNo),  
    CONSTRAINT FK_PatientLocalDoctor FOREIGN KEY (clinicNo, docName)  
REFERENCES LocalClinic(clinicNo, docName)  
);
```

```
INSERT INTO Patient VALUES ('101', 'John', 'Barker', '3498 Road, Chicago,  
IL', '594-568-4896', '01-jan-1980', 's', 'Johnson', '54', '945-597-4974');  
INSERT INTO Patient VALUES ('202', 'Josh', 'Stan', '3548 Circle, Chicago,  
IL', '798-659-5974', '02-feb-1990', 'm', 'Jones', '23', '955-564-6850');  
INSERT INTO Patient VALUES ('303', 'Luke', 'Paul', '1209 Lane, Chicago,  
IL', '329-596-4642', '03-mar-2000', 'd', 'Brady', '75', '945-656-4976');  
INSERT INTO Patient VALUES ('404', 'Murphy', 'Johnson', '2309 Blvd, Chicago,  
IL', '259-564-4365', '04-apr-1985', 's', 'Jordan', '87', '986-546-5464');  
INSERT INTO Patient VALUES ('505', 'Sally', 'Jones', '2948 Way, Evanston,  
IL', '954-455-4643', '05-may-1995', 'm', 'Johnson', '54', '528-567-4643');
```

```
CREATE TABLE ImmFamContact (  
    immFamFirstName varchar(20),  
    immFamLastName varchar(20),  
    immFamRelationship varchar(10),  
    immFamAddress varchar(255),  
    immFamPhoneNo varchar(15) NULL,  
    patientNo INT NULL,  
    CONSTRAINT PK_ImmFamContact PRIMARY KEY (patientNo, immFamPhoneNo),  
    CONSTRAINT FK_Patient FOREIGN KEY (patientNo) REFERENCES  
Patient(patientNo)  
);
```

```
INSERT INTO ImmFamContact VALUES ('Melissa', 'Park', 'Sister', '3498 Road,  
Chicago, IL', '945-597-4974', '101');  
INSERT INTO ImmFamContact VALUES ('Molly', 'Johnson', 'Wife', '3548 Circle,  
Chicago, IL', '955-564-6850', '202');  
INSERT INTO ImmFamContact VALUES ('Stan', 'Joney', 'Brother', '1209 Lane,  
Chicago, IL', '945-656-4976', '303');  
INSERT INTO ImmFamContact VALUES ('Phil', 'Petulla', 'Brother', '2309 Blvd,  
Chicago, IL', '986-546-5464', '404');  
INSERT INTO ImmFamContact VALUES ('Mark', 'Lilly', 'Husband', '2948 Way,  
Evanston, IL', '528-567-4643', '505');
```

```

ALTER TABLE Patient
ADD CONSTRAINT FK_PatImmFamContact
FOREIGN KEY (patientNo, immFamPhoneNo) REFERENCES ImmFamContact(patientNo,
immFamPhoneNo);

```

```

CREATE TABLE Appointment (
    apptNo INT NULL,
    apptDate DATE,
    apptTime INT,
    examRoom varchar(5),
    patientNo INT NULL,
    staffNo INT NULL,
    staffLastName varchar(25),
    CONSTRAINT PK_Appointment PRIMARY KEY (apptNo),
    CONSTRAINT FK_ApptPatient FOREIGN KEY (patientNo) REFERENCES
Patient(patientNo),
    CONSTRAINT FK_ApptStaff FOREIGN KEY (staffNo) REFERENCES
Staff(staffNo)
);

```

```

INSERT INTO Appointment VALUES ('10','05-apr-
2021','09','10','101','3','Brown');
INSERT INTO Appointment VALUES ('20','06-feb-
2021','10','20','202','5','Owens');
INSERT INTO Appointment VALUES ('30','07-jan-
2021','11','30','303','3','Brown');
INSERT INTO Appointment VALUES ('40','08-nov-
2021','12','40','404','5','Owens');
INSERT INTO Appointment VALUES ('50','09-dec-
2021','01','50','505','3','Brown');
INSERT INTO Appointment VALUES ('80','11-dec-
2021','12','40','202','3','Owens');
INSERT INTO Appointment VALUES ('70','12-dec-
2021','12','40','202','5','Owens');

```

```

CREATE TABLE Inpatient (
    patientNo INT NOT NULL,
    waitListDate DATE NULL,
    reqWard varchar(5) NULL,
    datePlacedWard varchar(15) NULL,
    expDurStay varchar(10) NULL,
    dateLeftWard varchar(15) NULL,
    bedNo INT NULL,
    wardNo varchar(5) NULL,
    staffNo INT NULL,
    CONSTRAINT PK_Inpatient PRIMARY KEY (patientNo, waitListDate,
datePlacedWard),
    CONSTRAINT FK_InPatPatient FOREIGN KEY (patientNo) REFERENCES
Patient(patientNo),
    CONSTRAINT FK_Bed FOREIGN KEY (bedNo, wardNo) REFERENCES Bed(bedNo,
wardNo),

```

```

        CONSTRAINT FK_Specialist FOREIGN KEY (staffNo) REFERENCES
Staff(staffNo)
);

INSERT INTO Inpatient VALUES ('101','05-mar-2021','A1','01-jan-1900','10
days','01-jan-1900','50','D4','1');
INSERT INTO Inpatient VALUES ('202','01-jan-1900','B2','06-mar-2021','30
days','04,apr-2021','80','A1','2');
INSERT INTO Inpatient VALUES ('303','01-jan-1900','C3','07-mar-2021','15
days','22-mar-2021','70','B2','3');

CREATE TABLE Outpatient (
    patientNo INT NULL,
    outApptDate DATE NULL,
    outApptTime INT NULL,
    CONSTRAINT PK_Outpatient PRIMARY KEY (patientNo, outApptDate),
    CONSTRAINT FK_OutPatPatient FOREIGN KEY (patientNo) REFERENCES
Patient(patientNo)
);

INSERT INTO Outpatient VALUES ('404','08-mar-2021','0800');
INSERT INTO Outpatient VALUES ('505','09-mar-2021','0900');
INSERT INTO Outpatient VALUES ('404','10-mar-2021','1000');
INSERT INTO Outpatient VALUES ('404','09-mar-2021','0900');

CREATE TABLE Medication (
    unitsPerDay varchar(25) NOT NULL,
    startDate DATE NOT NULL,
    finishDate DATE NULL,
    patientNo INT NULL,
    staffNo INT NULL,
    drugNo INT NULL,
    CONSTRAINT PK_Medication PRIMARY KEY (drugNo, patientNo, staffNo,
startDate),
    CONSTRAINT FK_MedDrug FOREIGN KEY (drugNo) REFERENCES
PharmSupply(drugNo),
    CONSTRAINT FK_MedPatient FOREIGN KEY (patientNo) REFERENCES
Patient(patientNo),
    CONSTRAINT FK_MedStaff FOREIGN KEY (staffNo) REFERENCES
Staff(staffNo)
);

INSERT INTO Medication VALUES ('5','06-mar-2021','06-apr-
2021','101','1','234');
INSERT INTO Medication VALUES ('3','07-mar-2021','22-mar-
2021','202','2','235');
INSERT INTO Medication VALUES ('2','08-mar-2021','23-mar-
2021','303','3','7');

```

Medical Director View

```

1.
SELECT *
FROM WARD
WHERE wardno = 'A1'

2.
SELECT wardno, numberofbeds
FROM WARD

3.
SELECT itemname, itemdesc, stockquantity
FROM generalsupply
WHERE itemdesc = 'Surgical'
ORDER BY stockquantity DESC

4.
SELECT itemname, itemdesc, stockquantity
FROM generalsupply
WHERE itemdesc = 'Surgical' and reorderlevel > 10
ORDER BY stockquantity DESC

5.
SELECT *
FROM generalsupply
WHERE itemdesc = 'Surgical' and unitcost > 9

6.
SELECT *
FROM supplier
WHERE supplierphoneno IS null

7.
SELECT generalsupply.itemno, generalsupply.itemname,
generalsupply.supplierno, supplier.suppliername,
generalsupply.stockquantity
FROM generalsupply
INNER JOIN supplier ON generalsupply.supplierno=supplier.supplierno
UNION
SELECT pharmsupply.drugno, pharmsupply.drugname, pharmsupply.supplierno,
supplier.suppliername, pharmsupply.stockquantity
FROM pharmsupply
INNER JOIN supplier ON pharmsupply.supplierno=supplier.supplierno

8.
WITH inpatientclinic as (
    SELECT I.PATIENTNO, P.CLINICNO FROM PATIENT P, INPATIENT I
    WHERE P.PATIENTNO = I.PATIENTNO
    AND ( (WAITLISTDATE BETWEEN add_months( trunc(sysdate), -12) AND
sysdate)
    OR
    (DATEPLACEDWARD BETWEEN add_months( trunc(sysdate), -12) AND sysdate))
), outpatientclinic as (
    SELECT I.PATIENTNO, P.CLINICNO FROM PATIENT P, OUTPATIENT I
    WHERE P.PATIENTNO = I.PATIENTNO

```



```

        AND OUTAPPTDATE BETWEEN add_months( trunc(sysdate), -12) AND
sysdate
), clinics as (
    SELECT * FROM inpatientclinic
    UNION
    SELECT * FROM outpatientclinic
), distinctclinics as (
    SELECT DISTINCT * FROM clinics
), numberofpatients as (
    SELECT CLINICNO, count(PATIENTNO) as patient_count
    FROM distinctclinics
    GROUP BY CLINICNO
)
SELECT C.*, N.patient_count FROM
numberofpatients N,
LOCALCLINIC C
WHERE C.CLINICNO = N.CLINICNO

```

```

9.
SELECT count(DISTINCT patientno) as PatientCount, outapptdate
FROM outpatient
GROUP BY outapptdate
ORDER BY outapptdate

```

```

10.
SELECT patientno
FROM inpatient
WHERE waitlistdate BETWEEN '20-feb-2021' AND '11-mar-2021'

```

Charge Nurse

```

1.
SELECT staff.staffno, staff.firstname, staff.lastname, staffschedule.wardno
FROM staff
INNER JOIN staffschedule ON staffschedule.staffno=staff.staffno
ORDER BY staff.lastname, staff.firstname

```

```

2.
SELECT staff.firstname, staff.lastname, ward.wardno, ward.staffno
FROM staff, ward
WHERE ward.staffno=staff.staffno
ORDER BY ward.wardno

```

```

3.
SELECT patient.firstname, patient.lastname, inpatient.bedno
FROM patient, inpatient
WHERE patient.patientno=inpatient.patientno
ORDER BY inpatient.bedno

```

```

4.
SELECT itemno, drugno, orderdate
FROM requisition
WHERE orderdate = '01-mar-21'

```

5.

```
SELECT weekno, shift, count(staffno) as StaffCount, wardno
FROM staffschedule
GROUP BY weekno, shift, wardno
ORDER BY wardno, shift
```

6.

```
SELECT p.firstname, p.lastname, p.patientno, i.immfamfirstname,
i.immfamlastname, i.immfamrelationship, i.immfamaddress, i.immfamphoneno
FROM immfamcontact i
RIGHT JOIN patient p ON p.patientno=i.patientno
ORDER BY i.patientno
```

7.

```
SELECT s.staffno, w.wardno, s.firstname, s.lastname
FROM staff s, ward w, specialist sp
WHERE s.staffno = w.staffno AND sp.staffno = w.staffno
```

8.

```
SELECT *
FROM (
SELECT m.patientno, MAX(p.dosage) AS HighestDosage
FROM medication m JOIN pharmsupply p ON p.drugno = m.drugno
GROUP BY m.patientno
ORDER BY HighestDosage DESC)
WHERE rownum <= 1
```

9.

```
SELECT *
FROM pharmsupply
WHERE reorderlevel = (SELECT MAX(reorderlevel)
                      FROM pharmsupply)
```

10.

```
CREATE VIEW NoApptsView AS
SELECT DISTINCT(apptdate), TO_CHAR((apptdate), 'ww') "WeekOfYear",
COUNT(apptdate)as NoAppts
FROM appointment
GROUP BY apptdate

SELECT DISTINCT("WeekOfYear"), SUM(NoAppts)
FROM NoApptsView
GROUP BY "WeekOfYear"
```