****** PHARMACY ******

```
CREATE TABLE doctor (
   d_id INT PRIMARY KEY,
   d_name VARCHAR(100) NOT NULL,
   d_speciality VARCHAR(100),
   d_year INT
);
SELECT * FROM doctor
DROP TABLE doctor
INSERT INTO doctor (d_id, d_name, d_speciality, d_year) VALUES (101, 'Hegde', 'Neurology', 33);
INSERT INTO doctor (d_id, d_name, d_speciality, d_year) VALUES (102, 'Prasad', 'Cardiac', 25);
INSERT INTO doctor (d_id, d_name, d_speciality, d_year) VALUES (103, 'Kulkarni', 'orthopedic', 31);
INSERT INTO doctor (d_id, d_name, d_speciality, d_year) VALUES (104, 'Roy', 'orthopedic', 21);
INSERT INTO doctor (d_id, d_name, d_speciality, d_year) VALUES (105, 'Hasilkar', 'dental', 13);
INSERT INTO doctor (d_id, d_name, d_speciality, d_year) VALUES (106, 'Ravi', 'Cardiac', 9);
```

Doctor			
d_id	D_name	d_speciality	d_year
101	Hegde	Neurology	33
102	Prasad	Cardiac	25
103	Kulkarni	orthopedic	31
104	Roy	orthopedic	21
105	Hasilkar	dental	13
106	Ravi	Cardiac	9

```
CREATE TABLE patient (
   p_id INT PRIMARY KEY,
   p_name VARCHAR(100) NOT NULL,
   p_age INT NOT NULL,
   address VARCHAR(100),
   d_id INT,
   FOREIGN KEY(d_id) REFERENCES doctor(d_id)
);
SELECT * FROM patient
DROP TABLE patient
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5001, 'Kartik', 25, 'Hubli', 101);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5002, 'Sonu', 23, 'banglore', 102);
```

```
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5003, 'Vishal', 52, 'Hubli', 103);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5004, 'Harsha', 12, 'Hubli', 103);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5005, 'Ragahv', 25, 'Belagavi', 104);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5006, 'Aarushi', 45, 'banglore', 105);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5007, 'Atharv', 32, 'Hubli', 106);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5008, 'Afzal', 36, 'Hubli', 103);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5009, 'Rashmi', 16, 'banglore', 102);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5010, 'Rajesh', 35, 'Hubli', 101);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5011, 'Mohan', 15, 'Hubli', 103);
INSERT INTO patient (p_id, p_name, p_age, address, d_id) VALUES (5012, 'Parth', 65, 'Hubli', 106);
```

Patient				
p_id	p_name	p_age	address	d_id
5001	Kartik	25	Hubli	101
5002	Sonu	23	banglore	102
5003	Vishal	52	Hubli	103
5004	Harsha	12	Hubli	103
5005	Ragahv	25	Belagavi	104
5006	Aarushi	45	banglore	105
5007	Atharv	32	Hubli	106
5008	Afzal	36	Hubli	103
5009	Rashmi	16	banglore	102
5010	Rajesh	35	Hubli	101
5011	Mohan	15	Hubli	103
5012	Parth	65	Hubli	106

```
CREATE TABLE pharmacetical_co (
    PC_id INT PRIMARY KEY,
    PC_name VARCHAR(100) NOT NULL,
    phone INT,
    address VARCHAR(100) NOT NULL
);
SELECT * FROM pharmacetical_co
DROP TABLE pharmacetical_co
INSERT INTO pharmacetical_co (PC_id, PC_name, phone, address) VALUES (3001, 'Bayer', 123, 'India');
INSERT INTO pharmacetical_co (PC_id, PC_name, phone, address) VALUES (3002, 'Lupin', 456, 'India');
INSERT INTO pharmacetical_co (PC_id, PC_name, phone, address) VALUES (3003, 'Cipla', NULL, 'America');
INSERT INTO pharmacetical_co (PC_id, PC_name, phone, address) VALUES (3004, 'Astra', 789, 'Russia');
INSERT INTO pharmacetical_co (PC_id, PC_name, phone, address) VALUES (3005, 'Merck', 12345, 'India');
INSERT INTO pharmacetical_co (PC_id, PC_name, phone, address) VALUES (3006, 'Bristol', 67890, 'Russia');
```

pharmacetical_co			
PC_id	PC_name	phone	address
3001	Bayer	123	India
3002	Lupin	456	India
3003	Cipla	NULL	America
3004	Astra	789	Russia
3005	Merck	12345	India
3006	Bristol	67890	Russia

```
CREATE TABLE drugs (
   drug_name VARCHAR(50) PRIMARY KEY,
   formula VARCHAR(100) NOT NULL,
   trade_name VARCHAR(100) NOT NULL,
   amt INT
);
SELECT * FROM drugs
DROP TABLE drugs
INSERT INTO drugs (drug_name, formula, trade_name, amt) VALUES ('heroin', 'acch', 'A', 225);
INSERT INTO drugs (drug_name, formula, trade_name, amt) VALUES ('khat', 'hooch', 'B', 250);
INSERT INTO drugs (drug_name, formula, trade_name, amt) VALUES ('cocaine', 'choonh', 'c', 330);
INSERT INTO drugs (drug_name, formula, trade_name, amt) VALUES ('lsd', 'pchnoh', 'd', 125);
INSERT INTO drugs (drug_name, formula, trade_name, amt) VALUES ('dxm', 'chchch', 'e', 225);
INSERT INTO drugs (drug_name, formula, trade_name, amt) VALUES ('pcp', 'hochnop', 'f', 175);
INSERT INTO drugs (drug_name, formula, trade_name, amt) VALUES ('kt', 'pocnonh', 'g', 80);
```

drugs			
drug_name	formula	trade_name	amt
heroin	acch	A	225
khat	hooch	B	250
cocaine	choonh	C	330
lsd	pchnoh	D	125
dxm	chchch	E	225
pcp	hochnop	F	175
kt	pocnonh	G	80

```
CREATE TABLE contract (
   cid INT PRIMARY KEY,
   start_date date,
   end_date date,
   terms VARCHAR (100),
   managerName VARCHAR(50)
);
```

SELECT * FROM contract

DROP TABLE contract

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (901, TO_DATE('01-Jan-06', 'DD-Mon-YY'), TO_DATE('31-Dec-26', 'DD-Mon-YY'), NULL, 'darshan');

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (902, TO_DATE('01-Feb-06', 'DD-Mon-YY'), TO_DATE('31-Dec-27', 'DD-Mon-YY'), NULL, 'rohan');

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (903, TO_DATE('01-Mar-06', 'DD-Mon-YY'), TO_DATE('31-Dec-28', 'DD-Mon-YY'), NULL, 'rahul');

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (904, TO_DATE('01-Apr-06', 'DD-Mon-YY'), TO_DATE('31-Dec-29', 'DD-Mon-YY'), NULL, 'raj');

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (905, TO_DATE('01-May-06', 'DD-Mon-YY'), TO_DATE('31-Dec-30', 'DD-Mon-YY'), NULL, 'shiv');

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (906, TO_DATE('01-Jun-06', 'DD-Mon-YY'), TO_DATE('31-Dec-31', 'DD-Mon-YY'), NULL, 'suraj');

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (907, TO_DATE('01-Jul-06', 'DD-Mon-YY'), TO_DATE('31-Dec-32', 'DD-Mon-YY'), NULL, 'anup');

INSERT INTO contract (cid, start_date, end_date, terms, managerName) VALUES (908, TO_DATE('01-Aug-06', 'DD-Mon-YY'), TO_DATE('31-Dec-33', 'DD-Mon-YY'), NULL, 'anuj');

contract				
cid	start_date	end_date	terms	managerName
901	01-Jan-06	31-Dec-26		darshan
902	01-Feb-06	31-Dec-27		rohan
903	01-Mar-06	31-Dec-28		rahul
904	01-Apr-06	31-Dec-29		raj
905	01-May-06	31-Dec-30		shiv
906	01-Jun-06	31-Dec-31		suraj
907	01-Jul-06	31-Dec-32		anup
908	01-Aug-06	31-Dec-33		anuj

CREATE TABLE prescription(

pres_id INT PRIMARY KEY,

ondate VARCHAR(50) NOT NULL,

quantity INT,

did INT,

pid INT,

drug VARCHAR(50),

FOREIGN KEY(did) REFERENCES doctor(d_id),

FOREIGN KEY(pid) REFERENCES patient(p_id),

FOREIGN KEY(drug) REFERENCES drugs(drug_name)

);

SELECT * FROM prescription

DROP TABLE prescription

INSERT INTO prescription (pres_id, ondate, quantity, did, pid, drug) VALUES (201, '25-Jun-24', 300, 101, 5001, 'heroin');

INSERT INTO prescription (pres_id, ondate, quantity, did, pid, drug) VALUES (202, '26-Jun-24', 350, 102, 5002, 'khat');

INSERT INTO prescription (pres_id, ondate, quantity, did, pid, drug) VALUES (203, '27-Jun-24', 600, 102, 5002, 'cocaine');

INSERT INTO prescription (pres_id, ondate, quantity, did, pid, drug) VALUES (204, '28-Jun-24', 450, 104, 5005, 'lsd');

INSERT INTO prescription (pres_id, ondate, quantity, did, pid, drug) VALUES (205, '01-Jul-24', 250, 101, 5010, 'dxm');

INSERT INTO prescription (pres_id, ondate, quantity, did, pid, drug) VALUES (206, '02-Jul-24', 400, 105, 5006, 'pcp');

INSERT INTO prescription (pres_id, ondate, quantity, did, pid, drug) VALUES (207, '03-Jul-24', 450, 106, 5007, 'kt');

prescription					
pres_id	ondate	quantity	did	pid	drug
201	25-Jun-24	300	101	5001	heroin
202	26-Jun-24	350	102	5002	khat
203	27-Jun-24	600	102	5002	cocaine
204	28-Jun-24	450	104	5005	lsd
205	01-Jul-24	250	101	5010	dxm
206	02-Jul-24	400	105	5006	pcp
207	03-Jul-24	450	106	5007	kt

CREATE TABLE pharmacy (

pharm_name VARCHAR(50) PRIMARY KEY,

address VARCHAR(50) NOT NULL,

phone INT,

pres_id INT,

pc_id INT,

cid INT,

FOREIGN KEY (pres_id) REFERENCES prescription (pres_id),

FOREIGN KEY (pc_id) REFERENCES pharmacetical_co (pc_id),

FOREIGN KEY (cid) REFERENCES contract (cid)

);

SELECT * FROM pharmacy

DROP TABLE pharmacy

INSERT INTO pharmacy (pharm_name, address, phone, pres_id, pc_id, cid) VALUES ('remedies', 'banglore', NULL, 201, 3001, 901);

INSERT INTO pharmacy (pharm_name, address, phone, pres_id, pc_id, cid) VALUES ('miracle', 'banglore', NULL, 203, 3002, 902);

INSERT INTO pharmacy (pharm_name, address, phone, pres_id, pc_id, cid) VALUES ('pill', 'Hubli', NULL, 204, 3003, 903);

INSERT INTO pharmacy (pharm_name, address, phone, pres_id, pc_id, cid) VALUES ('paradise', 'banglore', NULL, 205, 3004, 904);

INSERT INTO pharmacy (pharm_name, address, phone, pres_id, pc_id, cid) VALUES ('hosp', 'Hubli', NULL, 206, 3005, 905);

INSERT INTO pharmacy (pharm_name, address, phone, pres_id, pc_id, cid) VALUES ('medplus', 'banglore', NULL, 207, 3006, 906);

Pharmacy					
pharm_name	address	phone	pres_id	pc_id	cid
remedies	banglore	NULL	201	3001	901
miracle	banglore	NULL	203	3002	902
pill	Hubli	NULL	204	3003	903
paradise	banglore	NULL	205	3004	904
hosp	Hubli	NULL	206	3005	905
medplus	banglore	NULL	207	3006	906
Cini	Dharwad	NULL	201	3006	902

Multiple table join operations along with Arithmetic, Logical operators - 6 Queries

Query 1: Retrieve the names of doctors who prescribed drugs with a quantity greater than 300.

```
SELECT d_name
FROM doctor, prescription
WHERE prescription.quantity > 300
AND doctor.d_id = prescription.did;
```

D_NAME
Hasilkar
Prasad
Prasad
Ravi
Roy

Query 2: List the names of patients and their ages where the prescribed drug costs more than 200 and is managed by contracts ending after 2028.

```
SELECT p_name, p_age
FROM patient, prescription, drugs, pharmacy, contract
WHERE patient.p_id = prescription.pid
AND prescription.drug = drugs.drug_name
AND drugs.amt > 200
AND prescription.pres_id = pharmacy.pres_id
AND pharmacy.cid = contract.cid
AND contract.end_date > TO_DATE('31-Dec-28', 'DD-Mon-YY');
```

P_NAME	P_AGE
Rajesh	35

Query 3: Find the pharmaceutical companies that supplied drugs prescribed to patients older than 40 years.

```
SELECT PC_name
FROM pharmacetical_co, pharmacy, prescription, patient
WHERE pharmacetical_co.PC_id = pharmacy.pc_id
AND pharmacy.pres_id = prescription.pres_id
AND prescription.pid = patient.p_id
AND patient.p_age > 40;
```

PC_NAME
Merck

Query 4: Display the doctor names and their specializations who prescribed heroin or khat.

```
SELECT d_name, d_speciality
FROM doctor, prescription
WHERE doctor.d_id = prescription.did
AND prescription.drug IN ('heroin', 'khat');
```

D_NAME	D_SPECIALITY
Heqde	Neurology
Prasad	Cardiac

Query 5: List the details of prescriptions where the total amount (quantity × drug cost) exceeds 50,000.

```
SELECT prescription.*
FROM prescription, drugs
WHERE prescription.drug = drugs.drug_name
AND (prescription.quantity * drugs.amt) > 50000;
```

PRES_ID	ONDATE	QUANTITY	DID	PID	DRUG
201	25-Jun-24	300	101	5001	heroin
202	26-Jun-24	350	102	5002	khat
203	27-Jun-24	600	102	5002	cocaine
204	28-Jun-24	450	104	5005	lsd
205	01-Jul-24	250	101	5010	dxm
206	02-Jul-24	400	105	5006	pcp

Query 6: Retrieve the names of contracts managed by individuals whose contracts started before 2008 and include pharmacies in Hubli.

```
SELECT managerName
FROM contract, pharmacy
WHERE contract.cid = pharmacy.cid
AND pharmacy.address = 'Hubli'
AND contract.start_date < TO_DATE('01-Jan-08', 'DD-Mon-YY');
```

MANAGERNAME
rahul
shiv

Different Clauses & Functions (Group by, having and order by Clause) – 6 Queries

Query 1: Count the number of patients under each doctor and display the doctor's name.

```
SELECT doctor.d_name, COUNT(patient.p_id) AS patient_count
FROM doctor, patient
WHERE doctor.d_id = patient.d_id
GROUP BY doctor.d_name;
```

D_NAME	PATIENT_COUNT
Prasad	2
Heqde	2
Hasilkar	1
Ravi	2
Kulkarni	4
Roy	1

Query 2: Display the drug name and total quantity prescribed for each drug, but only if the total quantity exceeds 500.

```
SELECT drugs.drug_name, SUM(prescription.quantity) AS total_quantity
FROM drugs, prescription
WHERE drugs.drug_name = prescription.drug
GROUP BY drugs.drug_name
HAVING SUM(prescription.quantity) > 500;
```

DRUG_NAME	TOTAL_QUANTITY
cocaine	600

Query 3: Find the number of contracts managed by each manager and display their names, ordered by the number of contracts in descending order.

```
SELECT contract.managerName, COUNT(contract.cid) AS contract_count
FROM contract
GROUP BY contract.managerName
ORDER BY contract_count DESC;
```

MANAGERNAME	CONTRACT_COUNT
rohan	1
rahul	1
suraj	1
anuj	1
anup	1
darshan	1
shiv	1
raj	1

Query 4: List the pharmaceutical company names along with the number of pharmacies they supply drugs to, showing only those companies that supply to only 1 pharmacy.

```
SELECT pharmacetical_co.PC_name, COUNT(pharmacy.pharm_name) AS pharmacy_count
FROM pharmacetical_co, pharmacy
WHERE pharmacetical_co.PC_id = pharmacy.pc_id
GROUP BY pharmacetical_co.PC_name
HAVING COUNT(pharmacy.pharm_name) = 1;
```

PC_NAME	PHARMACY_COUNT
Cipla	1
Merck	1
Bayer	1
Lupin	1
Bristol	1
Astra	1

Query 5: Show the number of drugs prescribed by each doctor, ordered by the doctor's name.

```
SELECT doctor.d_name, COUNT(prescription.drug) AS drug_count
FROM doctor, prescription
WHERE doctor.d_id = prescription.did
GROUP BY doctor.d_name
ORDER BY doctor.d_name;
```

D_NAME	DRUG_COUNT
Hasilkar	1
Heqde	2
Prasad	2
Ravi	1
Roy	1

Query 6: Display the city (address) and the total number of patients from each city, but only for cities where more than 3 patients reside.

```
SELECT patient.address, COUNT(patient.p_id) AS patient_count
FROM patient
GROUP BY patient.address
HAVING COUNT(patient.p_id) > 3;
```

ADDRESS	PATIENT_COUNT
Hubli	8

Sub-Query (Single Row (5 Queries), Multiple Row (4 Queries) and Correlated Nested

Single Row Subquery Example 1: Get the name of the manager with the earliest contract start date.

```
SELECT managerName
FROM contract
WHERE start_date = (
   SELECT MIN(start_date)
   FROM contract
);
```

MANAGERNAME
darshan

Single Row Subquery Example 2: Find the name of the pharmacy with the highest ID.

```
SELECT managerName
FROM contract
WHERE cid = (
   SELECT cid
```

```
    FROM pharmacy
    ORDER BY cid DESC
    FETCH FIRST 1 ROW ONLY
);
```

Single Row Subquery Example 3: Get the name of the manager for a specific contract ID.

```
SELECT managerName
FROM contract
WHERE cid = (
    SELECT cid
    FROM pharmacy
    WHERE address = 'Dharwad'
);
```

MANAGERNAME
rohan

Single Row Subquery Example 4: Find the manager name who has a contract that started on a specific date.

```
SELECT managerName
FROM contract
WHERE start_date = (
    SELECT start_date
    FROM contract
    WHERE cid = 123
);
```

MANAGER...
shiv

Single Row Subquery Example 5: Get the manager name with the maximum number of contracts.

```
SELECT managerName
FROM contract
WHERE managerName = (
    SELECT managerName
    FROM contract
    GROUP BY managerName
    ORDER BY COUNT(*) DESC
```

```
    FETCH FIRST 1 ROW ONLY
);
```

Multiple Row Subqueries

Multiple Row Subquery Example 1: Get all manager names with contracts that started after a certain date.

```
SELECT managerName
FROM contract
WHERE start_date IN (
    SELECT start_date
    FROM contract
    WHERE start_date > TO_DATE('01-Jan-05', 'DD-Mon-YY')
);
```

MANAGERNAME
darshan
rohan
rahul
raj
shiv
suraj
anup
anuj

Multiple Row Subquery Example 2: Find all pharmacy names in 'Hubli' that have contracts starting before 2008.

```
SELECT pharm_Name
FROM pharmacy
WHERE cid IN (
    SELECT cid
    FROM contract
    WHERE start_date < TO_DATE('01-Jan-08', 'DD-Mon-YY')
);
```

PHARM_NAME
remedies
Cini
miracle
pill
paradise
hosp
medplus

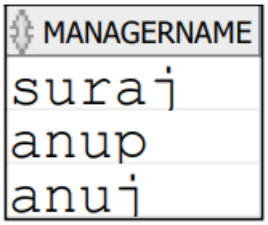
Multiple Row Subquery Example 3: Get all manager names with contracts associated with pharmacies in a specific city.

```
SELECT managerName
FROM contract
WHERE cid IN (
    SELECT cid
    FROM pharmacy
    WHERE address IN ('Hubli', 'Dharwad')
);
```

MANAGERNAME
rahul
shiv
rohan

Multiple Row Subquery Example 4: List managers who have contracts that exceed a specific id number.

```
SELECT managerName
FROM contract
WHERE duration IN (
   SELECT cid
   FROM contract
   WHERE cid>905
);
```

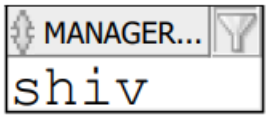


MANAGERNAME
suraj
anup
anuj

Correlated Nested Subquery

Correlated Nested Subquery Example 1: Get manager names for contracts that started after the average contract start date.

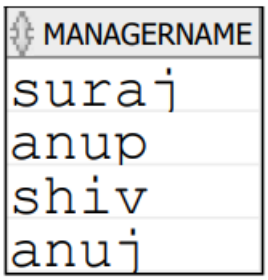
```
SELECT managerName
FROM contract c1
WHERE start_date < (
   SELECT MAX(start_date)
   FROM contract c2
   WHERE c1.managerName = c2.managerName
);
```



MANAGER...
shiv

Correlated Nested Subquery Example 2: Find managers who have at least one contract with a duration greater than the average duration of all contracts.

```
SELECT DISTINCT managerName
FROM contract c1
WHERE cid > (
   SELECT AVG(cid)
   FROM contract c2
);
```



MANAGERNAME
suraj
anup
shiv
anuj

Correlated Nested Subquery Example 3: List pharmacies that have contracts where the start date is after the maximum start date for their specific manager.

```
SELECT pharm_Name
FROM pharmacy p
WHERE cid IN (
   SELECT cid
   FROM contract c
   WHERE c.start_date = (
      SELECT MAX(start_date)
      FROM contract c2
      WHERE c2.managerName = c.managerName
   )
);
```

PHARM_NAME
remedies
Cini
miracle
pill
paradise
hosp
medplus

Correlated Nested Subquery Example 4: Get all managers whose contract duration is greater than the maximum duration of contracts for pharmacies located in 'Hubli'.

```
SELECT managerName
FROM contract c1
WHERE cid < (
   SELECT MAX(cid)
   FROM contract c2
   WHERE c2.cid IN (
      SELECT cid
      FROM pharmacy
      WHERE address = 'Hubli'
   )
);
```

MANAGERNAME
darshan
rohan
rahul
raj

Query with Exist and Not Exist Operator (4 Queries)

Using EXISTS

Query Example 1: Find all managers who have at least one contract associated with a pharmacy in 'Hubli'

```
SELECT managerName
FROM contract c
WHERE EXISTS (
   SELECT 1
   FROM pharmacy p
   WHERE p.cid = c.cid
   AND p.address = 'Hubli'
);
```

MANAGERNAME
rahul
shiv

Query Example 2: Get all pharmacies that have at least one contract with a start date after January 1, 2008.

```
SELECT pharm_Name
FROM pharmacy p
WHERE EXISTS (
   SELECT 1
   FROM contract c
   WHERE c.cid = p.cid
   AND c.start_date > TO_DATE('01-Jan-05', 'DD-Mon-YY')
);
```

PHARM_NAME
remedies
miracle
pill
paradise
hosp
medplus
Cini

Query Example 3: Find all contracts for managers who manage pharmacies located in 'Dharwad'.

```
SELECT *
FROM contract c
WHERE EXISTS (
   SELECT 1
   FROM pharmacy p
   WHERE p.cid = c.cid
   AND p.address = 'Dharwad'
);
```

CID	START_DATE	END_DATE	TERMS	MANAGERNAME
902	01-02-06	31-12-27	(null)	rohan

Query Example 4: List all managers who have contracts with a duration greater than 12 months, ensuring they manage pharmacies that have at least one contract.

```
SELECT DISTINCT managerName
FROM contract c
WHERE c.cid > 905
AND EXISTS (
   SELECT 1
   FROM pharmacy p
   WHERE p.cid = c.cid
);
```

MANAGERNAME
suraj

Using NOT EXISTS

Query Example 1: Find all managers who do not have any contracts associated with pharmacies in 'Hubli'.

```
SELECT managerName
FROM contract c
WHERE NOT EXISTS (
   SELECT 1
   FROM pharmacy p
   WHERE p.cid = c.cid
   AND p.address = 'Hubli'
);
```

MANAGERNAME
raj
anuj
rohan
anup
suraj
darshan

Query Example 2: Get all pharmacies that do not have any contracts starting after January 1, 2008.

```
SELECT pharmacyName
FROM pharmacy p
WHERE NOT EXISTS (
   SELECT 1
   FROM contract c
   WHERE c.cid = p.cid
   AND c.start_date > TO_DATE('01-Jan-06', 'DD-Mon-YY')
);
```

PHARM_NAME
remedies

Query Example 3: Find all contracts for managers who do not manage any pharmacies located in 'Dharwad'.

```
SELECT *
FROM contract c
WHERE NOT EXISTS (
   SELECT 1
   FROM pharmacy p
   WHERE p.cid = c.cid
   AND p.address = 'Dharwad'
);
```

CID	START_DATE	END_DATE	TERMS	MANAGERNAME
904	01-04-06	31-12-29	(null)	raj
908	01-08-06	31-12-33	(null)	anuj
903	01-03-06	31-12-28	(null)	rahul
905	01-05-06	31-12-30	(null)	shiv
907	01-07-06	31-12-32	(null)	anup
906	01-06-06	31-12-31	(null)	suraj
901	01-01-06	31-12-26	(null)	darshan

Query Example 4: List all managers who do not have any contracts with a duration greater than 12 months.

```
SELECT DISTINCT managerName
FROM contract c
WHERE NOT EXISTS (
   SELECT 1
   FROM contract c2
   WHERE c2.managerName = c.managerName
   AND c2.cid > 905
);
```

MANAGERNAME
rohan
rahul
raj
shiv
darshan

Views (simple & complex Views) - 2 Queries

Simple View Example: Create a view to display the manager names and their corresponding pharmacy addresses.

```
CREATE VIEW Simple_ex AS
SELECT managerName, address
FROM contract c, pharmacy p
WHERE c.cid = p.cid;

SELECT * FROM Simple_ex;
```

MANAGERNAME	ADDRESS
darshan	banglore
rohan	Dharwad
rohan	banglore
rahul	Hubli
raj	banglore
shiv	Hubli
suraj	banglore

Complex View Example: Create a view to show the count of contracts per manager along with the average duration of those contracts.

CREATE VIEW Complex AS

SELECT c.managerName, COUNT(c.cid) AS contract_count, AVG(c.cid) AS average_duration

FROM contract c

GROUP BY c.managerName;

SELECT * FROM Complex;

MANAGERNAME	CONTRACT_COUNT	AVERAGE_DURATION
rohan	1	902
rahul	1	903
suraj	1	906
raj	1	904
anup	1	907
darshan	1	901
shiv	1	905
anuj	1	908