DATA BASE MANAGEMENT SYSTEM PROJECT

PROJECT TEAM MEMBERS :

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Project Title :

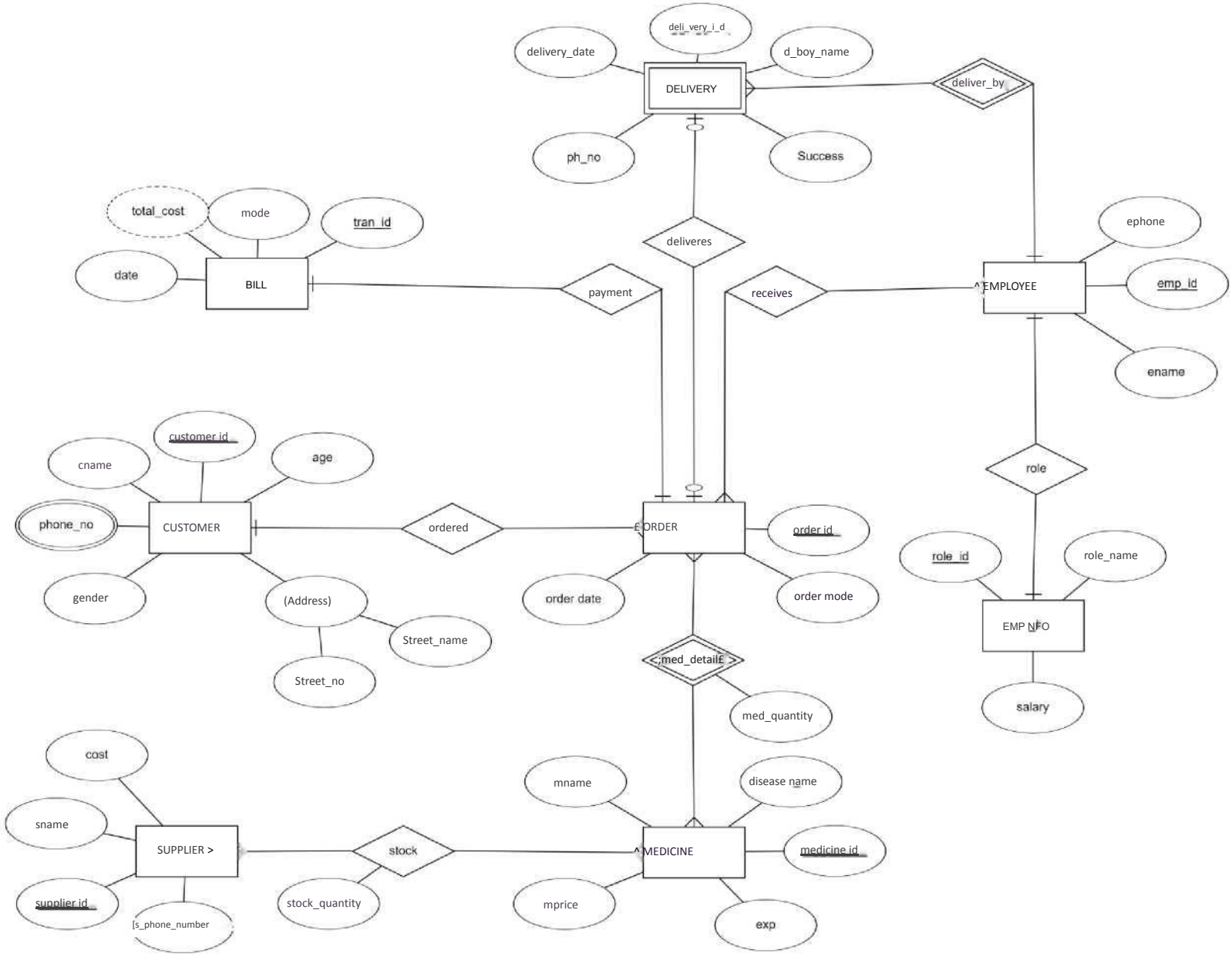
Data Base Management System for Pharmacy.

PROBLEM STATEMENT :

Designing and developing a database that provides a platform for pharmacy to check the supply of medicines and to supply them.

Project-1:

ER-DIAGRAM


deli_very_i_d
delivery_date
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DELIVERY
deliver_by
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BILL
payment
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^EMPLOYEE
ephone
emp_id
ename
customer id
cname
age
phone_no
CUSTOMER
ordered
£ORDER
order id
gender
(Address)
Street_name
Street_no
order date
order mode
role
role_id
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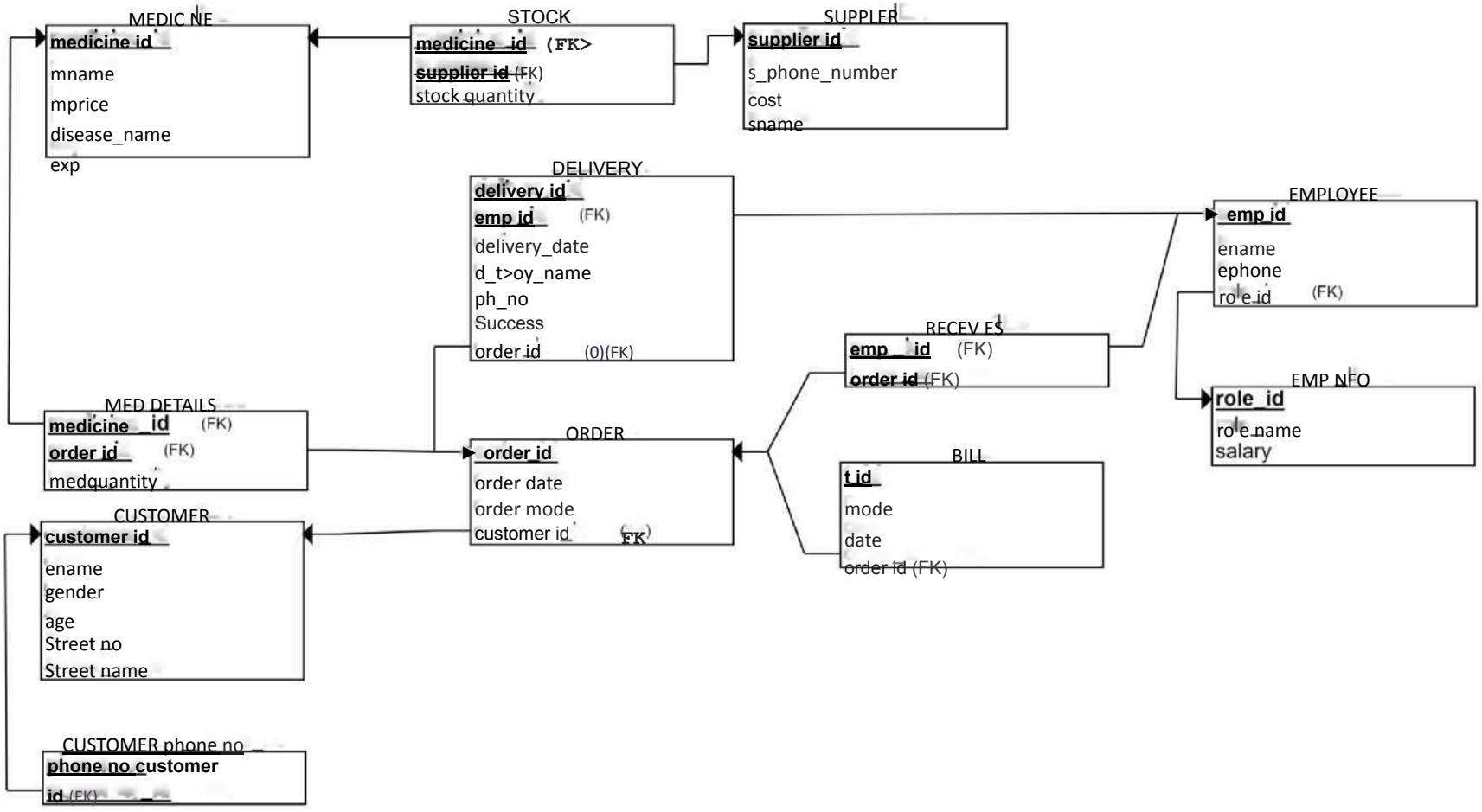
EMP NFO
salary
<;med_detail£ >
med_quantity
cost
sname
SUPPLIER >
stock
supplier id
[s_phone_number
stock_quantity
mname
disease name
^MEDICINE
medicine id
mprice
exp

RELATIONAL MODEL



FUNCTIONAL DEPENDENCIES

1. CUSTOMER:

CUSTOMER_ID^{CNAME,AGE,GENDER,PHONENO}

PHONENO IS A MULTI-VALUED ATTRIBUTE SET

SINCE ALL THE FIELDS DEPEND ON CUSTOMER_ID, (CUSTOMER_ID)+ ">R

HENCE, CUSTOMER_ID IS A PRIMARY KEY.

2. ORDER:

ORDER_ID^{ ORDER_MODE,ORDER_DATE }

SINCE ALL THE FIELDS DEPEND ON ORDER_ID, (ORDER_ID)+ ">R HENCE,

ORDER_ID IS A PRIMARY KEY.

3. MEDICINE:

MEDICINE_ID^{ MNAME,MPRICE,DISEASENAME,EXP }

SINCE ALL THE FIELDS DEPEND ON MEDICINE_ID, (MEDICINE_ID)+ ">R

HENCE, MEDICINE_ID IS A PRIMARY KEY.

4. SUPPLIER:

SUPPLIER_ID^{ COST,SNAME,PHONE_NO }

SINCE ALL THE FIELDS DEPEND ON SUPPLIER_ID, (SUPPLIER_ID)+ ">R

HENCE, SUPPLIER_ID IS A PRIMARY KEY.

5. BILL:

TRANS_ID^{MODE,DATE}

SINCE ALL THE FIELDS DEPEND ON TRANS_ID, (TRANS_ID)+ ">R HENCE,

TRANS_ID IS A PRIMARY KEY.

6. DELIVERY:

DELIVERY_ID^{MODE,DATE}

DELIVERY IS A WEAK ENTITY SET

SINCE ALL THE FIELDS DEPEND ON DELIVERY _ID, (DELIVERY _ID)+ ">R

HENCE, DELIVERY _ID IS A PRIMARY KEY.

7. EMPLOYEE:

EMPLOYEE_ID^{ ENAME,EPHONE }

SINCE ALL THE FIELDS DEPEND ON EMPLOYEE _ID, (EMPLOYEE _ID)+ ">R

HENCE, EMPLOYEE _ID IS A PRIMARY KEY.

8. EMP_INFO:

ROLE_ID^{ ROLE_NAME,SALARY }

SINCE ALL THE FIELDS DEPEND ON ROLE_ID, (ROLE_ID)+ ">R HENCE, ROLE_ID

IS A PRIMARY KEY.

9. ORDERS:

ORDER_ID^{ order_date ,order_mode}

SINCE ALL THE FIELDS DEPEND ON ORDER_ID, (ORDER_ID)+ ">R HENCE

ORDER ID IS A PRIMARY KEY.

10. MED DETAILS:

MEDICINE_ID ->{ med_quantity }

SINCE ALL THE FIELDS DEPEND ON MEDICINE_ID, (MEDICINE_ID)+ ">R

HENCE, MEDICINE_ID IS A PRIMARY KEY.

11. RECEIVES

PRIMARY KEY: EMP_ID, ORDER_ID FOREIGN KEYS:

EMP_ID (REFERENCES EMPLOYEE(EMP_ID)) ORDER_ID (REFERENCES

ORDERS(ORDER_ID)) ATTRIBUTES:EMP_ID,ORDER_ID

12. BILL

PRIMARY KEY: TRANS ID

FOREIGN KEYS:

ORDER_ID (REFERENCES ORDERS(ORDER_ID))

ATTRIBUTES:TRANS_ID,MODES,DATES,ORDER_ID

NORMALIZATION

IN 2NF - IF THERE ARE NO PARTIAL DEPENDENCIES.

IN 3NF - IF THERE ARE NO TRANSITIVE DEPENDENCIES.

IN BCNF - IF ALL DETERMINANTS ARE CANDIDATE KEYS OR SUPER

KEYS. 1. CUSTOMER

(CUSTOMER,CNAME,AGE,GENDER)

CUSTOMER_ID "> {CNAME,AGE,GENDER}

NORMAL FORM: BCNF

2.ORDER

(ORDER,ORDERMODE,ORDERDATE)

ORDERJD "> {ORDERMODE,ORDERDATE}

NORMAL FORM: BCNF

3.MEDICINE

(MEDICINE_ID,MNAME,MPRICE,DISEASENAME,EXP)

MEDICINE_ID->{MNAME,MPRICE,DISEASENAME,EXP}

NORMAL FORM: BCNF 4.SUPPLIER

(COST,SNAME,SUPPLIER_ID,PHONE_NO)

SUPPLIER_ID->{COST,SNAME,PFIONE_NO}

NORMAL FORM: BCNF

5.BILL

(TRANSJD, MODE, DATE)

TRANS_ID->{MODE,DATE}

NORMAL FORM: BCNF

6. DELIVERY

(DELIVERY_DATE,DELIVERY_ID,DEV_BOY_NAME,SUCCESS,PHO_NO)

DELIVERY_ID^{DELIVERY_DATE,DEV_BOY_NAME,SUCCESS,PHO_NO}

NORMAL FORM: BCNF

7. EMPLOYEE

(EMP_ID,ENAME,EPHONE)

EMP_ID^{ENAME,EPHONE}

NORMAL FORM: BCNF

8. EMP_INFO

(ROLE_NAME,ROLE_ID,SALARY)

NORMAL FORM: BCNF

ROLE_ID^{ROLE_NAME,SALARY}

9.ORDERS:

(ORDER_ID)-> {ORDER_DATE, ORDER_MODE}

NORMAL FORM: BCNF

10. MED_DETAILS:

(MEDICINEJD) -> {MED_QUANTITY}

NORMAL FORM: BCNF

11. RECEIVES:

EMPJD -> {ORDERJD}

ORDERJD -> {ORDER_DATE, ORDER_MODE}

NORMAL FORM: BCNF

12. BILL:

NORMAL FORM: BCNF

TRANSJD -> {ORDERJD, ORDER_MODE, ORDER

DATE}

SQL CODE

```
CREATE TABLE CUSTOMER (
cname VARCHAR(225) NOT NULL,
customer_id VARCHAR(225) NOT NULL,
gender VARCHAR(225) NOT NULL, age
INT NOT NULL,
Street_no VARCHAR(225) ,
Street_name VARCHAR(225),
PRIMARY KEY (customer_id)
);

insert into customer values ('rakesh','CUS1','M',28,'U01','UPPAL'); insert
into customer values ('sohan','CUS2','M',18,'S01','SAMEERPET'); insert
into customer values
('manikanta','CUS3','M',19,'M01','MAREDEPALLY'); insert into customer
values ('suhas','CUS4','M',18,'R01','RAMPET'); insert into customer
values ('sanjay','CUS5','M',20,'K01','KAZIPET');

CREATE TABLE MEDICINE (
medicine_id VARCHAR(225) NOT NULL, mname VARCHAR(225) NOT
NULL, mprice INT NOT NULL, disease_name VARCHAR(225),
MANF DATE, expi DATE,
PRIMARY KEY (medicine_id)
);


insert into MEDICINE values
('MED1','PARACETAMOL',100,'FEVER','1-APR-22','1-APR-23'); insert into MEDICINE
values ('MED2','DOLO',200,'BODYPAINS','1-MAY-22','1-MAY-23'); insert into
MEDICINE values ('MED3','SETREGIN',150,'COFF','1-JUNE-22','1-JUNE-23');
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insert into MEDICINE values
('MED4','COLDDACT',130,'COLD','1-JULY-22','1-JULY-23'); insert into MEDICINE
values ('MED5','HEAD',90,'HEADAKE','1-JULY-22','1-JULY-23');

CREATE TABLE SUPPLIER (

supplier_id VARCHAR(225) NOT NULL, s_phone_number INT NOT NULL, cost INT
NOT NULL, sname VARCHAR(225),
PRIMARY KEY (supplier_id)
);
insert into SUPPLIER values ('SUP1',1800018000,50,'RAHUL'); insert into SUPPLIER
values ('SUP2',1800018001,50,'BHUVANESH'); insert into SUPPLIER values
('SUP3',1800018002,50,'VENKAT'); insert into SUPPLIER values
('SUP4',1800018003,50,'MAHI'); insert into SUPPLIER values
('SUP5',1800018004,50,'NISHANTH');

CREATE TABLE EMP_INFO (

role_name VARCHAR(225) NOT NULL, role_id VARCHAR(225), salary INT,
PRIMARY KEY (role_id)
);
INSERT INTO EMP_INFO VALUES ('cashier','ROL1',6000);
INSERT INTO EMP_INFO VALUES ('security','ROL2',5000);
INSERT INTO EMP_INFO VALUES ('Manager','ROL3',8000);
INSERT INTO EMP_INFO VALUES ('worker','ROL4',9000);
INSERT INTO EMP_INFO VALUES ('billchecker','ROL5',8000);

CREATE TABLE stock (

stock_quantity INT,
```

```
  medicine_id varchar(225) NOT NULL, supplier_id varchar(225)
  NOT NULL,
  PRIMARY KEY (medicine_id, supplier_id),
  FOREIGN KEY (medicine_id) REFERENCES
  MEDICINE(medicine_id), FOREIGN KEY (supplier_id)
  REFERENCES SUPPLIER(supplier_id)
  );
  INSERT INTO stock VALUES (50, 'MED1', 'SUP1');
  INSERT INTO stock VALUES (20, 'MED3', 'SUP3');
  INSERT INTO stock VALUES (70, 'MED4', 'SUP2');
  INSERT INTO stock VALUES (30, 'MED2', 'SUP5');
  INSERT INTO stock VALUES (40, 'MED5', 'SUP4');
CREATE TABLE CUST OMER_PHONE_N O (

phone_no INT NOT NULL, customer_id varchar(225) NOT NULL,
PRIMARY KEY (phone_no, customer_id),
FOREIGN KEY (customer_id) REFERENCES CUSTOMER(customer_id)
);
INSERT INTO CUSTOMER_PHONE_NO VALUES (1234567891, 'CUS1');
INSERT INTO CUSTOMER_PHONE_NO VALUES (1234567892,
'CUS3'); INSERT INTO CUSTOMER_PHONE_NO VALUES
(1234567893, 'CUS4'); INSERT INTO CUSTOMER_PHONE_NO
VALUES (1234567894, 'CUS2'); INSERT INTO
CUSTOMER_PHONE_NO VALUES (1234567895, 'CUS5');

CREATE TABLE EMPLOYEE (

ename VARCHAR(225) ,
emp_id VARCHAR(225),
ephone INT NOT NULL,
role_id VARCHAR(225),
```

```
PRIMARY KEY (emp_id),
FOREIGN KEY (role_id) REFERENCES EMP_INFO(role_id)
);
INSERT INTO EMPLOYEE VALUES ('JohnDoe', 'EMP1', 1800019000,
'ROL1'); INSERT INTO EMPLOYEE VALUES ('JOHN', 'EMP2', 1800019001,
'ROL4'); INSERT INTO EMPLOYEE VALUES ('RAM', 'EMP3', 1800019003,
'ROL2'); INSERT INTO EMPLOYEE VALUES ('KRISHNA', 'EMP4',
1800019003, 'ROL3'); INSERT INTO EMPLOYEE VALUES ('RAMU', 'EMP5',
18000190004, 'ROL5');

CREATE TABLE DELIVERY (

delivery_date DATE , delivery_id VARCHAR(225), d_boy_name VARCHAR(225) ,
d_ph_no INT NOT NULL,
Successs varchar(225), emp_id varchar(225),
PRIMARY KEY (delivery_id, emp_id),
FOREIGN KEY (emp_id) REFERENCES EMPLOYEE(emp_id)
);
INSERT INTO DELIVERY VALUES (TO_DATE('2023-05-12','YYYY-MM-DD'),'DLV1','Adam
Smith',9191919191,'Successful','EMP 1');
INSERT INTO DELIVERY VALUES (TO_DATE('2023-05-11','YYYY-MM-DD'),'DLV2','Emily
Davi s',9191919192,'F ailed','EMP3');
INSERT INTO DELIVERY VALUES (TO_DATE('2023-05-13','YYYY-MM-DD'),'DLV3','Jack
Smith',9191919193,'F ailed','EMP2');
INSERT INTO DELIVERY VALUES
(TO_DATE('2023-05-14','YYYY-MM-DD'),'DLV4','Maggie
Lee',9191919194,'Successful','EMP5');
INSERT INTO DELIVERY VALUES
(TO_DATE('2023-05-15','YYYY-MM-DD'),'DLV5','Henry
Brown',9191919195,'Pending','EMP4');

CREATE TABLE ORDERS
```

```
(
order_id varchar(225) , order_date date , order_mode varchar(225) , customer_id varchar(225), delivery_id
varchar(225) , emp_id varchar(225),
PRIMARY KEY (order_id),
FOREIGN KEY (customer_id) REFERENCES CUSTOMER(customer_id),
FOREIGN KEY (delivery_id,emp_id) REFERENCES DELIVERY(delivery_id, emp_id)
);
INSERT INTO ORDERS VALUES
('ORD1',TO_DATE('2023-06-12','YYYY-MM-DD'),'Online','CUS1',rDLV1','EMP1'); INSERT INTO ORDERS
VALUES ('ORD2',TO_DATE('2023-06-n','YYYY-MM-DD'),'Phone','CUS2','DLV3','EMP2'); INSERT INTO
ORDERS VALUES ('ORD3',TO_DATE('2023-06-13','YYYY-MM-DD'),'In-person','CUS3','DLV4','EMP5'); INSERT
INTO ORDERS VALUES ('ORD4',TO_DATE('2023-06-15','YYYY-MM-DD'),'Online','CUS5','DLV2','EMP3');
INSERT INTO ORDERS VALUES
('ORD5',TO_DATE('2023-06-14','YYYY-MM-DD'),'Phone','CUS4',rDLV5','EMP4');

CREATE TABLE med_details (

med_quantity INT , medicine_id VARCHAR(225), order_id VARCHAR(225),
PRIMARY KEY (medicine_id, order_id),
FOREIGN KEY (medicine_id) REFERENCES MEDICINE(medicine_id),
FOREIGN KEY (order_id) REFERENCES ORDERS (order_id)
);
INSERT INTO med_details VALUES (50,'MED2','ORD1');
INSERT INTO med_details VALUES (20,'MED1','ORD4');
INSERT INTO med_details VALUES (30,'MED3','ORD2');
INSERT INTO med_details VALUES (10,'MED5','ORD5');
INSERT INTO med_details VALUES (5,'MED4','ORD3');
```

```
CREATE TABLE receives (
emp_id VARCHAR(225), order_id VARCHAR(225),
PRIMARY KEY (emp_id, order_id),
FOREIGN KEY (emp_id) REFERENCES EMPLOYEE(emp_id),
FOREIGN KEY (order_id) REFERENCES ORDERS (order_id)
);


INSERT INTO receives VALUES ('EMP1','ORD2');
INSERT INTO receives VALUES ('EMP3','ORD1');
INSERT INTO receives VALUES ('EMP5','ORD5');
INSERT INTO receives VALUES ('EMP4','ORD4');
INSERT INTO receives VALUES ('EMP2','ORD3');

CREATE TABLE BILL (
trans_id VARCHAR(225), modes VARCHAR(225), dates DATE,
order_id VARCHAR(225),
PRIMARY KEY (trans_id),
FOREIGN KEY (order_id) REFERENCES ORDERS(order_id)
);
INSERT INTO BILL VALUES
('TR1','Card',TO_DATE('2023-07-12','YYYY-MM-DD'),'ORD1'); INSERT INTO BILL
VALUES ('TR2','Cash',TO_DATE('2023-07-11','YYYY-MM-DD'),'ORD3'); INSERT INTO
BILL VALUES ('TR3','Card',TO_DATE('2023-07-13','YYYY-MM-DD'),'ORD2'); INSERT
INTO BILL VALUES ('TR4','Online',TO_DATE('2023-07-14','YYYY-MM-DD'),'ORD5');
INSERT INTO BILL VALUES
('TR5','Cash',TO_DATE('2023-07-15','YYYY-MM-DD'),'ORD4');
```

QURIES:

1.SELECT * FROM CUSTOMER;

	CNAME	CUSTOMER_ID	GENDER	AGE	STREET_NO	STREET_NAME
1	rakesh	CUS1	M	23	U01	UFFAL
2	sohan	CUS2	M	13	301	SAMEERPET
3	manikanta	CUS3	M	15	H01	MARE DE PALLY
4	suhas	CUS4	M	13	R01	RAMPET
5	sanjay	CUSS	M	20	KOI	KAZIFET

2. SELECT * FROM MEDICINE WHERE MPRICE >= 150;

	MEDICINE_ID	MNAME	MPRICE	DISEASE_NAME	MANF	EXPI
1	MED2	DOLO	200	BODYPAINS	01-05-22	01-05-23
2	MED3	SETREGIN	150	COFF	01-06-22	01-06-23

3. SHOW THE CREATED DATA OF BILL

	COLUMN_NAME	DATAJTYPE		NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1	TRANS_ID	VAROEiAR2(225	BYTE)	No	(null)	1	(null)
2	MODES	VARCHAR2 (225	BYTE)	Yes	(null)	2	(null)
3	DATES	DATE		Yes	(null)	3	(null)
4	ORDER_ID	VARCHAR2 (225	BYTE)	Yes	(null)	4	(null)

4. RETRIEVE THE NAME OF THE SUPPLIER WHO SUPPLIES MEDICINE "MED1":

```
SELECT SNAME FROM SUPPLIER S JOIN STOCK ST ON S.SUPPLIER_ID = ST.SUPPLIER_ID
WHERE ST.MEDICINE_ID = 'MED1';
```

	$
SNAME 1	
RAHUL	

5. SELECT THE TOTAL NUMBER OF ORDERS:

SELECT COUNT(*) FROM ORDERS;

	COUNT(*)
1	5

6.RETRIEVE THE ROLE NAME AND SALARY OF ALL EMPLOYEES WHO EARN MORE THAN 6000 AND LESS THAN 9000:

	$ ROLE_NAME	$ SALARY|
1	cashier	€000
2	Manager	SOOO
3	worker	SOOO
4	billchecker	SOOO

7. DISPLAY THE TOTAL COST OF ALL MEDICINE IN STOCK:

SELECT SUM(STOCK_QUANTITY * MPRICE) AS TOTAL_COST FROM STOCK INNER JOIN MEDICINE ON STOCK.MEDICINE_ID = MEDICINE.MEDICINE_ID;

$

TQTAL_CQST 1

26700

8. SHOW THE DATA TABLE FOR MEDICINE DETAILS

	MED_QUANTTTY	MEDICINE _ID	ORDERJD
1	50	HED2	ORD1
2	20	HED1	ORD4
3	30	HED3	ORD2
A	10	HED5	ORD5
5	5	MED4	ORD3

9. DISPLAY THE NAME, PHONE NUMBER, AND SALARY FOR ALL EMPLOYEES WHO MAKE MORE THAN $7000 PER MONTH:

SELECT ENAME, EPHONE, SALARY FROM EMPLOYEE INNER JOIN EMP_INFO ON EMPLOYEE.ROLE_ID = EMP_INFO.ROLE_ID WHERE SALARY > 7000;

	ENAME	EPHONE	SALARY
1	JOHN	1800019001	9000
2	KRISHNA	1800019003	8000
3	RAMU	18000190004	8000

10. RETRIEVE ALL MEDICINES AND THEIR SUPPLIERS:

SELECT MNAME, SNAME FROM MEDICINE INNER

JOIN STOCK ON MEDICINE.MEDICINE ID

INNER JOIN SUPPLIER ON STOCK.SUPPLIER ID =

	$ MNAME	$ SNAME	
1	PARACETAMOL	RAHUL	
2	COLDDACT	BHUVANESH	
3	SETREGIN	VEHKAT	
4	HEAD	MAHI	
5	DOLO	NISHAHTH	

= STOCK. MEDICINEJD

SUPPLIER.SUPPLIER ID