```
-----QUESTION 1

CREATE TABLE client_master(
        client_no VARCHAR(6),
     name VARCHAR(20) NOT NULL,
     address1 VARCHAR(30),
     address2 VARCHAR(30),
    city VARCHAR(15),
    state VARCHAR(15),
    pincode NUMBER(6),
    bal_due NUMBER(10,2),
    CONSTRAINT client_no_pk PRIMARY KEY(client_no),
    CONSTRAINT client_no_ck CHECK (client_no LIKE 'C%')
);

insert into client_master values('C00001','Ivan
Bayross','Bombay',400054,'Maharashtra',15000);

insert into client_master values('C00002','Vandana Saitwal','Madras',780001,'Tamil
Nadu',0);

insert into client_master values('C00003','Pramada
Jaguste','Bombay',400057,'Maharashtra',5000);

insert into client_master values('C00004','Basu
Navindgi','Bombay',400056,'Maharashtra',0);

insert into client_master values('C00005','Ravi
Sreedharan','Delhi',100001,'Delhi',2000);

insert into
client_master(client_no,values('C00006','Rukmini','Bombay',400050,'Maharashtra',0);

-----QUESTION 2

CREATE TABLE product_master(
        product_no VARCHAR(6),
    description VARCHAR(50) NOT NULL,
    profit_percent NUMBER(3,2) NOT NULL,
    unit_measure VARCHAR(10) NOT NULL,
    record_lvl NUMBER(8) NOT NULL,
    sell_price NUMBER(8,2) NOT NULL,
    cost_price NUMBER(8,2) NOT NULL,
    CONSTRAINT product_no_pk PRIMARY KEY(product_no),
    CONSTRAINT product_no_ck CHECK (product_no LIKE 'P%'),
    CONSTRAINT sell_price_ck CHECK ( sell_price > 0 ),
    CONSTRAINT cost_price_ck CHECK ( cost_price > 0 )
);
insert into product_master values('P00001','1.44
Floppies',5,'Piece',100,20,525,500);
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insert into product_master values('P03453','Monitors',6,'Piece',10,3,12000,11280);
insert into product_master values('P06734','Mouse',5,'Piece',20,50,1050,1000);
insert into product_master values('P07865','1.22
Floppies',5,'Piece',100,20,525,500);
insert into product_master values('P07868','Keyboards',2,'Piece',10,3,3150,3050);
insert into product_master values('P07885','CD Drive',2.5,'Piece',10,3,5250,5100);
insert into product_master values('P07965','540 HDD',4,'Piece',10,3,8400,8000);
insert into product_master values('P07975','1.44 Drive',5,'Piece',10,3,1050,1000);
insert into product_master values('P08865','1.22 Drive',5,'Piece',2,3,1050,1000);


----QUESTION 3

CREATE TABLE salesman_master(
         salesman_no VARCHAR(6),
     salesman_name VARCHAR(20) NOT NULL,
     address1 VARCHAR(30) NOT NULL,
     address2 VARCHAR(30),
     city VARCHAR(20),
     state VARCHAR(20),
    pincode NUMBER(6),
    sal_amt NUMBER(8,2) NOT NULL,
    tgt_to_get NUMBER(6,2) NOT NULL,
    ytd_sales NUMBER(6,2) NOT NULL,
    remarks VARCHAR(60),
    CONSTRAINT salesman_no_pk PRIMARY KEY(salesman_no),
    CONSTRAINT salesman_no_ck CHECK (salesman_no LIKE 'S%'),
     CONSTRAINT sal_amt_ck CHECK ( sal_amt > 0 ),
    CONSTRAINT tgt_to_get_ck CHECK ( tgt_to_get > 0 )

);

insert into salesman_master
values('S00001','Kiran','A/14','Worli','Bombay',400002,'MAH',3000,100,50,'Good');

insert into salesman_master
values('S00002','Manish','65','Nariman','Bombay',400001,'MAH',3000,200,100,'Good');

insert into salesman_master
values('S00003','Ravi','P-7','Bandra','Bombay',400032,'MAH',3000,200,100,'Good');

insert into salesman_master
values('S00004','Ashish','A/5','Juhu','Bombay',400044,'MAH',3500,200,150,'Good');

-----QUESTION d

CREATE TABLE sales_order(
    s_order_no VARCHAR(6),
    s_order_date DATE,
    client_no VARCHAR(6),
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    dely_addr VARCHAR(25),
    salesman_no VARCHAR(6),
    delay_type CHAR(1) DEFAULT 'F',
    billed_yn CHAR(1) DEFAULT 'N',
    dely_date DATE ,
    order_status VARCHAR(10),
    CONSTRAINT s_order_no_pk PRIMARY KEY(s_order_no),
    CONSTRAINT s_order_no_ck CHECK(s_order_no LIKE 'O%'),
    CONSTRAINT client_no_fk FOREIGN KEY(client_no) REFERENCES client(client_no),
    CONSTRAINT sales_man_no_fk FOREIGN KEY(salesman_no) REFERENCES
salesman_master(salesman_no),
    CONSTRAINT D_CK CHECK (delay_type IN ('P','F')),
    CONSTRAINT B_CK CHECK (billed_yn IN ('Y','N')),
    CONSTRAINT DE_CK CHECK (dely_date>= s_order_date),
    CONSTRAINT OS_CK CHECK (order_status
IN('In_process','Fullfilled','Back_order','Cancelled'))
    );

insert into sales_order
values('O19001','12-Jan-1996','C00001','F','N','S00001','20-Jan-1996','in
process');

insert into sales_order
values('O19002','25-Jan-1996','C00002','P','N','S00002','27-Jan-1996','canceled');

insert into sales_order
values('O46865','18-Feb-1996','C00003','F','Y','S00003','20-Feb-1996','fullfilled')
;

insert into sales_order
values('O19003','03-Apr-1996','C00001','F','Y','S00001','07-Apr-1996','fullfilled')
;

insert into sales_order
values('O46866','20-May-1996','C00004','P','N','S00002','22-May-1996','canceled');

insert into sales_order
values('O10008','24-May-1996','C00005','F','N','S00004','26-May-1996','in
process');


-----Question e

CREATE TABLE sales_order_details(
    s_order_no VARCHAR(6),
    product_no VARCHAR(6),
    qty_ordered NUMBER(8),
    qty_disp NUMBER(8),
    product_rate NUMBER(10,2),
    CONSTRAINT s_order_no_fk FOREIGN KEY(s_order_no) REFERENCES
```

```
    sales_order(s_order_no),
        CONSTRAINT product_no_fk FOREIGN KEY(product_no) REFERENCES
product_master(product_no)
        );

insert into sales_order_details values('O19001','P00001',4,4,525);
insert into sales_order_details values('O19001','P07965',2,1,8400);
insert into sales_order_details values('O19001','P07885',2,1,5250);
insert into sales_order_details values('O19002','P00001',10,0,525);
insert into sales_order_details values('O46865','P07868',3,3,3150);
insert into sales_order_details values('O46865','P07885',3,1,5250);
insert into sales_order_details values('O46865','P00001',10,10,525);
insert into sales_order_details values('O46865','P03453',4,4,1050);
insert into sales_order_details values('O19003','P03453',2,2,1050);
insert into sales_order_details values('O19003','P06734',1,1,12000);
insert into sales_order_details values('O46866','P07965',1,0,8400);
insert into sales_order_details values('O46866','P07975',1,0,1050);
insert into sales_order_details values('O19003','P00001',10,4,525);
insert into sales_order_details values('O19003','P07975',5,3,1050);

-----Question f

CREATE TABLE challan_header(
    challan_no VARCHAR(6),
    s_order_no VARCHAR(6),
    challan_date DATE NOT NULL,
    billed_yn CHAR(1) DEFAULT 'N',
    CONSTRAINT challan_no_pk PRIMARY KEY(challan_no),
    CONSTRAINT challan_no_ck CHECK (challan_no LIKE 'CH%'),
    CONSTRAINT s_order_no FOREIGN KEY(s_order_no) REFERENCES
sales_order(s_order_no),
    CONSTRAINT billed_yn_ck CHECK (billed_yn IN ('Y','N'))
    );
insert into challan_header values('CH9001','O19001','12-Dec-1995','Y');
insert into challan_header values('CH6865','O46865','12-Nov-1995','Y');
insert into challan_header values('CH3965','O10008','12-Oct-1995','Y');


-----Question g

CREATE TABLE challan_details(
  challan_no VARCHAR(6),
  product_no VARCHAR(6),
  qty_disp NUMBER(4,2) NOT NULL,
  CONSTRAINT challan_no_pk PRIMARY KEY(challan_no,product_no),
  CONSTRAINT challan_no_fk FOREIGN KEY(challan_no) REFERENCES
challan_header(challan_no),
CONSTRAINT product_no_fk FOREIGN KEY(product_no) REFERENCES
product_master(product_no)
);
```

```
insert into challan_details values('CH9001','P00001',4);
insert into challan_details values('CH9001','P07965',1);
insert into challan_details values('CH9001','P07885',1);
insert into challan_details values('CH6865','P07868',3);
insert into challan_details values('CH6865','P03453',4);
insert into challan_details values('CH6865','P00001',10);
insert into challan_details values('CH3965','P00001',5);
insert into challan_details values('CH3965','P07975',2);
```