

**Group No :- 18**  
**Vaghasiya Nikhil (i.d. :- 202003042)**  
**Hardikkumar jani (i.d. :- 202003041)**  
**Lab No.:- 11(15-11-2021)**  
**Dairy product management system**

**Triggers :**

❖ **Trigger 1 :**

```
SET SEARCH_PATH TO DAIRY_MANAGEMENT_SYSTEM;

CREATE FUNCTION BILLING() RETURNS TRIGGER AS $$
DECLARE
R1 RECORD;
R2 RECORD;
NUM INTEGER;
BEGIN
    IF TG_OP='DELETE' OR TG_OP='UPDATE' THEN
        SELECT P_UNIT_PRICE , P_TAX , P_PROFIT, P_QUANTITY INTO R1
        FROM PRODUCT WHERE PRODUCT_ID=OLD.I_PRODUCT_ID;

        R1.P_UNIT_PRICE=R1.P_UNIT_PRICE*OLD.I_QUANTITY;
        R1.P_TAX=R1.P_TAX*OLD.I_QUANTITY;
        R1.P_PROFIT=R1.P_PROFIT*OLD.I_QUANTITY;

        UPDATE BILL SET
        B_TOTAL_AMOUNT=B_TOTAL_AMOUNT-R1.P_UNIT_PRICE,
        B_TOTAL_TAX=B_TOTAL_TAX-R1.P_TAX
        WHERE BILL_ID=OLD.I_BILL_ID;

        UPDATE TRANSPORT SET
        T_TOTAL_AMOUNT=T_TOTAL_AMOUNT-R1.P_UNIT_PRICE
        WHERE T_BILL_ID=OLD.I_BILL_ID;

        UPDATE PRODUCT SET
        P_QUANTITY=P_QUANTITY+OLD.I_QUANTITY
        WHERE PRODUCT_ID=OLD.I_PRODUCT_ID;

        SELECT O_CODE, B_DATE INTO R2 FROM BILL WHERE
        BILL_ID=OLD.I_BILL_ID;

        UPDATE SELLING_REPORT SET
        SR_TOTAL_QUANTITY=SR_TOTAL_QUANTITY-OLD.I_QUANTITY,
```

```
SR_TOTAL_AMOUNT=SR_TOTAL_AMOUNT-R1.P_UNIT_PRICE,  
SR_TOTAL_PROFIT=SR_TOTAL_PROFIT-R1.P_PROFIT  
WHERE SR_DATE=R2.B_DATE AND  
SR_PRODUCT_CODE=OLD.I_PRODUCT_ID AND SR_OUTLET_CODE=R2.O_CODE;  
RAISE NOTICE 'DELETE';  
END IF;
```

```
IF TG_OP='INSERT' OR TG_OP='UPDATE' THEN  
SELECT P_UNIT_PRICE , P_TAX , P_PROFIT, P_QUANTITY INTO R1  
FROM PRODUCT WHERE PRODUCT_ID=NEW.I_PRODUCT_ID;
```

```
IF R1.P_QUANTITY<NEW.I_QUANTITY THEN  
RAISE EXCEPTION 'INVALIDE QUANTITY';  
END IF;
```

```
R1.P_UNIT_PRICE=R1.P_UNIT_PRICE*NEW.I_QUANTITY;  
R1.P_TAX=R1.P_TAX*NEW.I_QUANTITY;  
R1.P_PROFIT=R1.P_PROFIT*NEW.I_QUANTITY;
```

```
UPDATE BILL SET  
B_TOTAL_AMOUNT=B_TOTAL_AMOUNT+R1.P_UNIT_PRICE,  
B_TOTAL_TAX=B_TOTAL_TAX+R1.P_TAX  
WHERE BILL_ID=NEW.I_BILL_ID;
```

```
UPDATE TRANSPORT SET  
T_TOTAL_AMOUNT=T_TOTAL_AMOUNT+R1.P_UNIT_PRICE  
WHERE T_BILL_ID=NEW.I_BILL_ID;
```

```
UPDATE PRODUCT SET  
P_QUANTITY=P_QUANTITY-NEW.I_QUANTITY  
WHERE PRODUCT_ID=NEW.I_PRODUCT_ID;
```

```
SELECT O_CODE, B_DATE INTO R2 FROM BILL WHERE  
BILL_ID=NEW.I_BILL_ID;
```

```
SELECT COUNT(*) INTO NUM FROM SELLING_REPORT  
WHERE SR_DATE=R2.B_DATE AND  
SR_PRODUCT_CODE=NEW.I_PRODUCT_ID AND SR_OUTLET_CODE=R2.O_CODE;
```

```
IF NUM=0 THEN  
INSERT INTO SELLING_REPORT VALUES  
(NEW.I_QUANTITY,R1.P_UNIT_PRICE,R1.P_PROFIT,R2.B_DATE,NEW.I_PRODUCT_I  
D,R2.O_CODE);  
RAISE NOTICE 'INSERT';
```

```

ELSE
    UPDATE SELLING_REPORT SET

SR_TOTAL_QUANTITY=SR_TOTAL_QUANTITY+NEW.I_QUANTITY,

SR_TOTAL_AMOUNT=SR_TOTAL_AMOUNT+R1.P_UNIT_PRICE,
    SR_TOTAL_PROFIT=SR_TOTAL_PROFIT+R1.P_PROFIT
    WHERE SR_DATE=R2.B_DATE AND
SR_PRODUCT_CODE=NEW.I_PRODUCT_ID AND SR_OUTLET_CODE=R2.O_CODE;
    RAISE NOTICE 'UPDATE';
    END IF;
END IF;

RETURN NULL;

END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER TRIGGER_TEMP1 AFTER DELETE OR INSERT OR UPDATE ON
INCLUDE_PRODUCT
FOR EACH ROW EXECUTE PROCEDURE BILLING();

```

❖ **Output :**

postgres/postgres@MC212

Query EditorQuery History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

4

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

5

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

6

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

7

8

INSERT INTO INCLUDE\_PRODUCT VALUES (200005101,'AMBU10G',1);

9

10

DELETE FROM INCLUDE\_PRODUCT WHERE I\_BILL\_ID=200005101 AND I\_PRODUCT\_ID='AMBU10G';

11

12

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX FROM BILL WHERE BILL\_ID=200005101;

13

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

14

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

1

b\_total\_amount

double precision

b\_total\_tax

real

b\_date

date

60

0.5

2000-05-10

postgres/postgres@MC212

Query EditorQuery History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

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15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

1

p\_quantity

integer

85

Query EditorQuery History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

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SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

14

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data OutputExplainMessagesNotifications

sr\_total\_amountdouble precision

sr\_total\_quantityinteger

sr\_total\_profitreal

1

10

1

1

postgres/postgres@MC212

Query EditorQuery History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

4

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5

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SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data OutputExplainMessagesNotifications

t\_total\_amentdouble precision

1

40

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

4

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

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14

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

NOTICE: UPDATE

INSERT 0 1

Query returned successfully in 131 msec.

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

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4

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

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15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

	b_total_amount double precision	b_total_tax real	
1		70	1

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

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15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

	p_quantity integer	
1	84	

postgres/postgres@MC212

Query EditorQuery History

1SET SEARCH\_PATH TO DAIRY\_MANAGEMENT\_SYSTEM;  
2  
3SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;  
4SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';  
5SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10'  
6SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;  
7  
8INSERT INTO INCLUDE\_PRODUCT VALUES (200005101,'AMBU10G',1);  
9  
10DELETE FROM INCLUDE\_PRODUCT WHERE I\_BILL\_ID=200005101 AND I\_PRODUCT\_ID='AMBU10G';  
11  
12SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX FROM BILL WHERE BILL\_ID=200005101;  
13SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';  
14SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10'  
15SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data OutputExplainMessagesNotifications

	sr_totalAmount double precision	sr_totalQuantity integer	sr_totalProfit real	
1		20	2	2

postgres/postgres@MC212

Query EditorQuery History

1SET SEARCH\_PATH TO DAIRY\_MANAGEMENT\_SYSTEM;  
2  
3SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;  
4SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';  
5SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10'  
6SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;  
7  
8INSERT INTO INCLUDE\_PRODUCT VALUES (200005101,'AMBU10G',1);  
9  
10DELETE FROM INCLUDE\_PRODUCT WHERE I\_BILL\_ID=200005101 AND I\_PRODUCT\_ID='AMBU10G';  
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12SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX FROM BILL WHERE BILL\_ID=200005101;  
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15SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data OutputExplainMessagesNotifications

	t_totalAmount double precision	
1	50	

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

4

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

5

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

6

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

7

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INSERT INTO INCLUDE\_PRODUCT VALUES (200005101,'AMBU10G',1);

9

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DELETE FROM INCLUDE\_PRODUCT WHERE I\_BILL\_ID=200005101 AND I\_PRODUCT\_ID='AMBU10G';

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SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX FROM BILL WHERE BILL\_ID=200005101;

13

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

14

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

NOTICE: DELETE

DELETE 1

Query returned successfully in 125 msec.

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

4

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

5

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

6

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

7

8

INSERT INTO INCLUDE\_PRODUCT VALUES (200005101,'AMBU10G',1);

9

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DELETE FROM INCLUDE\_PRODUCT WHERE I\_BILL\_ID=200005101 AND I\_PRODUCT\_ID='AMBU10G';

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13

SELECT P\_QUANTITY FROM PRODUCT WHERE PRODUCT\_ID='AMBU10G';

14

SELECT SR\_TOTAL\_AMOUNT,SR\_TOTAL\_QUANTITY,SR\_TOTAL\_PROFIT FROM SELLING\_REPORT WHERE SR\_PRODUCT\_CODE='AMBU10G' AND SR\_DATE=DATE'2000-05-10

15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

	b_total_amount double precision	b_total_tax real
1	60	0.5

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

SELECT B\_TOTAL\_AMOUNT,B\_TOTAL\_TAX,B\_DATE FROM BILL WHERE BILL\_ID=200005101;

4

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15

SELECT T\_TOTAL\_AMOUNT FROM TRANSPORT WHERE T\_BILL\_ID=200005101;

Data Output

Explain

Messages

Notifications

	p_quantity integer
1	85



Query EditorQuery History

```

1 SET SEARCH_PATH TO DAIRY_MANAGEMENT_SYSTEM;
2
3 SELECT B_TOTAL_AMOUNT,B_TOTAL_TAX,B_DATE FROM BILL WHERE BILL_ID=200005101;
4 SELECT P_QUANTITY FROM PRODUCT WHERE PRODUCT_ID='AMBU10G';
5 SELECT SR_TOTAL_AMOUNT,SR_TOTAL_QUANTITY,SR_TOTAL_PROFIT FROM SELLING_REPORT WHERE SR_PRODUCT_CODE='AMBU10G' AND SR_DATE=DATE'2000-05-10
6 SELECT T_TOTAL_AMOUNT FROM TRANSPORT WHERE T_BILL_ID=200005101;
7
8 INSERT INTO INCLUDE_PRODUCT VALUES (200005101,'AMBU10G',1);
9
10 DELETE FROM INCLUDE_PRODUCT WHERE I_BILL_ID=200005101 AND I_PRODUCT_ID='AMBU10G';
11
12 SELECT B_TOTAL_AMOUNT,B_TOTAL_TAX FROM BILL WHERE BILL_ID=200005101;
13 SELECT P_QUANTITY FROM PRODUCT WHERE PRODUCT_ID='AMBU10G';
14 SELECT SR_TOTAL_AMOUNT,SR_TOTAL_QUANTITY,SR_TOTAL_PROFIT FROM SELLING_REPORT WHERE SR_PRODUCT_CODE='AMBU10G' AND SR_DATE=DATE'2000-05-10
15 SELECT T_TOTAL_AMOUNT FROM TRANSPORT WHERE T_BILL_ID=200005101;

```

Data OutputExplainMessagesNotifications

	sr_total_amount double precision	sr_total_quantity integer	sr_total_profit real	
1	10	1	1	

postgres/postgres@MC212

Query EditorQuery History

```

1 SET SEARCH_PATH TO DAIRY_MANAGEMENT_SYSTEM;
2
3 SELECT B_TOTAL_AMOUNT,B_TOTAL_TAX,B_DATE FROM BILL WHERE BILL_ID=200005101;
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14 SELECT SR_TOTAL_AMOUNT,SR_TOTAL_QUANTITY,SR_TOTAL_PROFIT FROM SELLING_REPORT WHERE SR_PRODUCT_CODE='AMBU10G' AND SR_DATE=DATE'2000-05-10
15 SELECT T_TOTAL_AMOUNT FROM TRANSPORT WHERE T_BILL_ID=200005101;

```

Data OutputExplainMessagesNotifications

	t_totalAmount double precision	
1	40	

## ❖ Trigger 2:

CREATE FUNCTION SET\_DATE() RETURNS TRIGGER AS \$\$  
BEGIN

```

IF TG_TABLE_NAME='worker' THEN
    NEW.W_JOINING_DATE=CURRENT_DATE;
ELSEIF TG_TABLE_NAME='bill' THEN
    NEW.B_DATE=CURRENT_DATE;
ELSEIF TG_TABLE_NAME='transport' THEN
    NEW.T_DATE=CURRENT_DATE;
ELSEIF TG_TABLE_NAME='selling_report' THEN
    NEW.SR_DATE=CURRENT_DATE;
ELSEIF TG_TABLE_NAME='purchase_report' THEN

```

```
        NEW.PR_DATE=CURRENT_DATE;
    END IF;
    RAISE NOTICE '%',TG_TABLE_NAME;
    RETURN NEW;
END;
$$ LANGUAGE plpgsql;
```

```
CREATE TRIGGER TRIGGER_TEMP2 BEFORE INSERT ON WORKER
FOR EACH ROW EXECUTE PROCEDURE SET_DATE();
```

```
CREATE TRIGGER TRIGGER_TEMP2 BEFORE INSERT ON BILL
FOR EACH ROW EXECUTE PROCEDURE SET_DATE();
```

```
CREATE TRIGGER TRIGGER_TEMP2 BEFORE INSERT ON TRANSPORT
FOR EACH ROW EXECUTE PROCEDURE SET_DATE();
```

```
CREATE TRIGGER TRIGGER_TEMP2 BEFORE INSERT ON SELLING_REPORT
FOR EACH ROW EXECUTE PROCEDURE SET_DATE();
```

```
CREATE TRIGGER TRIGGER_TEMP2 BEFORE INSERT ON PURCHASE_REPORT
FOR EACH ROW EXECUTE PROCEDURE SET_DATE();
```

❖ **Output:**

Query EditorQuery History

1SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3INSERT INTO BILL VALUES (200711100,'CASH',30,1.6,DATE'2007-11-15',9764563421,'GD3');

4INSERT INTO SELLING\_REPORT VALUES (53,1855,148.4,DATE'2008-02-01','SEB6.9','GD1');

5INSERT INTO PURCHASE\_REPORT VALUES (DATE'2008-09-12','CASH',5500,10001010,'GD1');

6INSERT INTO TRANSPORT VALUES (19001,'HARSH','PATEL',DATE'2000-05-10','SHAPAR, RAJKOT',50,'HARSH','RAMAVAT',9030104011,200711100,22);

7INSERT INTO WORKER VALUES (33,'SURESH','JANJANIYA','AAMBEDKAR-HALL 150FT RING ROAD RAJKOT',DATE'1979-10-10',DATE'2004-05-01',12000);

8

9

10SELECT \*FROM BILL WHERE B\_DATE=CURRENT\_DATE;

11SELECT \*FROM TRANSPORT WHERE T\_DATE=CURRENT\_DATE;

12SELECT \*FROM SELLING\_REPORT WHERE SR\_DATE=CURRENT\_DATE;

13SELECT \*FROM PURCHASE\_REPORT WHERE PR\_DATE=CURRENT\_DATE;

14SELECT \*FROM WORKER WHERE W\_JOINING\_DATE=CURRENT\_DATE;

Data OutputExplainMessagesNotifications

NOTICE: bill  
NOTICE: selling\_report  
NOTICE: purchase\_report  
NOTICE: transport  
NOTICE: worker  
INSERT 0 1  
  
Query returned successfully in 125 msec.

Query EditorQuery History

1SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3INSERT INTO BILL VALUES (200711100,'CASH',30,1.6,DATE'2007-11-15',9764563421,'GD3');

4INSERT INTO SELLING\_REPORT VALUES (53,1855,148.4,DATE'2008-02-01','SEB6.9','GD1');

5INSERT INTO PURCHASE\_REPORT VALUES (DATE'2008-09-12','CASH',5500,10001010,'GD1');

6INSERT INTO TRANSPORT VALUES (19001,'HARSH','PATEL',DATE'2000-05-10','SHAPAR, RAJKOT',50,'HARSH','RAMAVAT',9030104011,200711100,22);

7INSERT INTO WORKER VALUES (33,'SURESH','JANJANIYA','AAMBEDKAR-HALL 150FT RING ROAD RAJKOT',DATE'1979-10-10',DATE'2004-05-01',12000);

8

9

10SELECT \*FROM BILL WHERE B\_DATE=CURRENT\_DATE;

11SELECT \*FROM TRANSPORT WHERE T\_DATE=CURRENT\_DATE;

12SELECT \*FROM SELLING\_REPORT WHERE SR\_DATE=CURRENT\_DATE;

13SELECT \*FROM PURCHASE\_REPORT WHERE PR\_DATE=CURRENT\_DATE;

14SELECT \*FROM WORKER WHERE W\_JOINING\_DATE=CURRENT\_DATE;

Data OutputExplainMessagesNotifications

bill_id	b_payment_type	b_totalLamount	b_total_tax	b_date	c_mo_no	a_code	
[PK] numeric (11)	character varying (8)	double precision	real	date	numeric (10)	character varying (5)	
1	200711100	CASH	30	1.6	2021-11-15	9764563421	GD3

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

INSERT INTO BILL VALUES (200711100,'CASH',30,1.6,DATE'2007-11-15',9764563421,'GD3');

4

INSERT INTO SELLING\_REPORT VALUES (53,1855,148.4,DATE'2008-02-01','SEB6.9','GD1');

5

INSERT INTO PURCHASE\_REPORT VALUES (DATE'2008-09-12','CASH',5500,10001010,'GD1');

6

INSERT INTO TRANSPORT VALUES (19001,'HARSH','PATEL',DATE'2000-05-10','SHAPAR, RAJKOT',50,'HARSH','RAMAVAT',9030104011,200711100,22);

7

INSERT INTO WORKER VALUES (33,'SURESH','JANJANIYA','AAMBEDKAR-HALL 150FT RING ROAD RAJKOT',DATE'1979-10-10',DATE'2004-05-01',12000);

8

9

10

SELECT \*FROM BILL WHERE B\_DATE=CURRENT\_DATE;

11

SELECT \*FROM TRANSPORT WHERE T\_DATE=CURRENT\_DATE;

12

SELECT \*FROM SELLING\_REPORT WHERE SR\_DATE=CURRENT\_DATE;

13

SELECT \*FROM PURCHASE\_REPORT WHERE PR\_DATE=CURRENT\_DATE;

14

SELECT \*FROM WORKER WHERE W\_JOINING\_DATE=CURRENT\_DATE;

Data Output

Explain

Messages

Notifications

	transport_id [PK] numeric (10)	driver_first_name character varying (10)	driver_last_name character varying (10)	t_date date	address text	t_total_amount double precision	merchant_first_name character varying (10)	merchant_last_name character varying (10)	merc num
1	19001	HARSH	PATEL	2021-11-15	SHAPAR, RA...	50	HARSH	RAMAVAT	

Query Editor

Query History

1

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

2

3

INSERT INTO BILL VALUES (200711100,'CASH',30,1.6,DATE'2007-11-15',9764563421,'GD3');

4

INSERT INTO SELLING\_REPORT VALUES (53,1855,148.4,DATE'2008-02-01','SEB6.9','GD1');

5

INSERT INTO PURCHASE\_REPORT VALUES (DATE'2008-09-12','CASH',5500,10001010,'GD1');

6

INSERT INTO TRANSPORT VALUES (19001,'HARSH','PATEL',DATE'2000-05-10','SHAPAR, RAJKOT',50,'HARSH','RAMAVAT',9030104011,200711100,22);

7

INSERT INTO WORKER VALUES (33,'SURESH','JANJANIYA','AAMBEDKAR-HALL 150FT RING ROAD RAJKOT',DATE'1979-10-10',DATE'2004-05-01',12000);

8

9

10

SELECT \*FROM BILL WHERE B\_DATE=CURRENT\_DATE;

11

SELECT \*FROM TRANSPORT WHERE T\_DATE=CURRENT\_DATE;

12

SELECT \*FROM SELLING\_REPORT WHERE SR\_DATE=CURRENT\_DATE;

13

SELECT \*FROM PURCHASE\_REPORT WHERE PR\_DATE=CURRENT\_DATE;

14

SELECT \*FROM WORKER WHERE W\_JOINING\_DATE=CURRENT\_DATE;

Data Output

Explain

Messages

Notifications

	sr_total_quantity Integer	sr_total_amount double precision	sr_total_profit real	sr_date [PK] date	sr_product_code [PK] character varying (8)	sr_outlet_code [PK] character varying (5)
1	53	1855	148.4	2021-11-15	SEB6.9	GD1

Query Editor

Query History

```
1 SET SEARCH_PATH TO DAIRY_MANAGEMENT_SYSTEM;
2
3 INSERT INTO BILL VALUES (200711100,'CASH',30,1.6,DATE'2007-11-15',9764563421,'GD3');
4 INSERT INTO SELLING_REPORT VALUES (53,1855,148.4,DATE'2008-02-01','SEB6.9','GD1');
5 INSERT INTO PURCHASE_REPORT VALUES (DATE'2008-09-12','CASH',5500,10001010,'GD1');
6 INSERT INTO TRANSPORT VALUES (19001,'HARSH','PATEL',DATE'2000-05-10','SHAPAR, RAJKOT',50,'HARSH','RAMAVAT',9030104011,200711100,22);
7 INSERT INTO WORKER VALUES (33,'SURESH','JANJANIYA','AAMBEDKAR-HALL 150FT RING ROAD RAJKOT',DATE'1979-10-10',DATE'2004-05-01',12000);
8
9
10 SELECT *FROM BILL WHERE B_DATE=CURRENT_DATE;
11 SELECT *FROM TRANSPORT WHERE T_DATE=CURRENT_DATE;
12 SELECT *FROM SELLING_REPORT WHERE SR_DATE=CURRENT_DATE;
13 SELECT *FROM PURCHASE_REPORT WHERE PR_DATE=CURRENT_DATE;
14 SELECT *FROM WORKER WHERE W_JOINING_DATE=CURRENT_DATE;
```

Data Output

Explain

Messages

Notifications

	pr_date [PK] date	payment_type character varying (8)	pr_total_amount double precision	seller_id [PK] numeric (8)	outlet_code [PK] character varying (5)
1	2021-11-15	CASH	5500	10001010	GD1

Query Editor

Query History

```

1  SET SEARCH_PATH TO DAIRY_MANAGEMANT_SYSTEM;
2
3  INSERT INTO BILL VALUES (200711100,'CASH',30,1.6,DATE'2007-11-15',9764563421,'GD3');
4  INSERT INTO SELLING_REPORT VALUES (53,1855,148.4,DATE'2008-02-01','SEB6.9','GD1');
5  INSERT INTO PURCHASE_REPORT VALUES (DATE'2008-09-12','CASH',5500,10001010,'GD1');
6  INSERT INTO TRANSPORT VALUES (19001,'HARSH','PATEL',DATE'2000-05-10','SHAPAR, RAJKOT',50,'HARSH','RAMAVAT',9030104011,200711100,22);
7  INSERT INTO WORKER VALUES (33,'SURESH','JANJANIYA','AAMBEDKAR-HALL 150FT RING ROAD RAJKOT',DATE'1979-10-10',DATE'2004-05-01',12000);
8
9
10 SELECT *FROM BILL WHERE B_DATE=CURRENT_DATE;
11 SELECT *FROM TRANSPORT WHERE T_DATE=CURRENT_DATE;
12 SELECT *FROM SELLING_REPORT WHERE SR_DATE=CURRENT_DATE;
13 SELECT *FROM PURCHASE_REPORT WHERE PR_DATE=CURRENT_DATE;
14 SELECT *FROM WORKER WHERE W_JOINING_DATE=CURRENT_DATE;

```

Data Output

Explain

Messages

Notifications

worker_id	w_first_name	w_last_name	w_address	w_birth_date	w_joining_date	w_salary	
[PK] integer	character varying (10)	character varying (10)	text	date	date	numeric (6)	
1	33	SURESH	JANJANIYA	AAMBEDKAR-H...	1979-10-10	2021-11-15	12000

Views :

### ❖ View 1:

SET SEARCH\_PATH TO DAIRY\_MANAGEMANT\_SYSTEM;

### ❖ View 2:

CREATE VIEW WORKER\_VIEW AS

SELECT WORKER\_ID,W\_FIRST\_NAME || ' ' || W\_LAST\_NAME AS

NAME,W\_ADDRESS AS ADDRESS,W\_BIRTH\_DATE AS

BIRTH\_DATE,W\_JOINING\_DATE AS JOINING\_DATE FROM WORKER;

### ❖ View 3:

CREATE VIEW MANAGER\_VIEW AS

```
SELECT M_WORKER_ID AS MANAGER_ID,M_USER_NAME AS USER_NAME  
FROM MANAGER;
```

❖ **View 4:**

```
CREATE VIEW PRODUCT_VIEW AS  
SELECT P_NAME AS PRODUCT_NAME,P_COMPANY_NAME AS  
PRODUCT_COMPANY,P_TAX AS GST_TAX,P_UNIT_PRICE AS PRICE,P_QUANTITY  
AS TOTAL_PRESENT_QUANTITY,P_SELLER_ID AS SELLER_ID FROM PRODUCT;
```

❖ **View 5:**

```
CREATE VIEW CUSTOMER_BILLED_PRODUCTS AS  
SELECT C_FIRST_NAME || ' ' || C_LAST_NAME AS NAME,C_LOCALITY || ' ' ||  
C_CITY || ' PINCODE - ' || C_PINCODE AS ADDRESS, C_MOBILE_NO AS  
MOBILE_NO,  
R1.P_NAME AS PRODUCT_NAME,R1.P_COMPANY_NAME AS  
PRODUCT_COMPANY,  
R1.BILL_ID,R1.B_TOTAL_AMOUNT AS TOTAL_PAYMENT,R1.B_PAYMENT_TYPE  
AS PAYMENT_TYPE FROM  
CUSTOMER JOIN (SELECT *FROM BILL JOIN  
(SELECT *FROM INCLUDE_PRODUCT JOIN PRODUCT ON  
I_PRODUCT_ID=PRODUCT_ID) AS R2 ON BILL_ID=R2.I_BILL_ID)  
AS R1 ON C_MOBILE_NO=C_MO_NO;
```

❖ **View 6:**

```
CREATE VIEW CUSTOMER_FEEDBACK AS  
SELECT C_FIRST_NAME || ' ' || C_LAST_NAME AS NAME,C_LOCALITY || ' ' ||  
C_CITY || ' PINCODE - ' || C_PINCODE AS ADDRESS,C_MOBILE_NO AS  
MOBILE_NO,  
P_NAME AS PRODUCT_NAME,P_COMPANY_NAME AS PRODUCT_COMPANY,  
F_TITLE AS FEEDBACK_TITLE,F_RATING AS RATING,F_COMMENT AS  
COMMENT FROM CUSTOMER JOIN (SELECT *FROM FEEDBACK JOIN PRODUCT  
ON F_TITLE=PRODUCT_ID) AS R1 ON C_MOBILE_NO=CUSTOMER_MO_NO;
```

❖ **View 7:**

```
CREATE VIEW WORKER_OUTLET AS  
SELECT WORKER_ID,W_FIRST_NAME || ' ' || W_LAST_NAME AS NAME,  
OUTLET_CODE,O_ADDRESS AS OUTLET_ADDRESS FROM WORKER JOIN  
(SELECT *FROM WORKING JOIN OUTLET ON W_OUTLET_ID=OUTLET_CODE) AS  
R ON WORKER_ID=W_WORKER_ID;
```

❖ **View 8:**

```
CREATE VIEW TRANSPORT_PRODUCT AS  
SELECT TRANSPORT_ID, DRIVER_FIRST_NAME || ' ' || DRIVER_LAST_NAME AS  
DRIVER_NAME, T_DATE AS TRANSPORT_DATE, ADDRESS,
```

```

MERCHANT_FIRST_NAME || ' ' || MERCHANT_LAST_NAME AS
MERCHANT_NAME, MERCHANT_MO_NO AS MERCHANT_MOBILE_NUMBER,
R1.P_NAME AS PRODUCT_NAME, R1.P_COMPANY_NAME AS
PRODUCT_COMPANY,
R1.BILL_ID, R1.B_TOTAL_AMOUNT AS TOTAL_PAYMENT, R1.B_PAYMENT_TYPE
AS PAYMENT_TYPE FROM TRANSPORT JOIN
(SELECT *FROM BILL JOIN (SELECT *FROM INCLUDE_PRODUCT JOIN PRODUCT
ON I_PRODUCT_ID=PRODUCT_ID) AS R2 ON BILL_ID=R2.I_BILL_ID)
AS R1 ON T_BILL_ID=BILL_ID;

```

### **Functions :**

#### **❖ Function 1:**

```

SET SEARCH_PATH TO dairy_managemant_system;
CREATE FUNCTION PROMOTION() RETURNS BOOL AS $$
DECLARE
    R1 RECORD;
BEGIN
    FOR R1 IN SELECT *FROM WORKER WHERE
(CURRENT_DATE-W_JOINING_DATE)/365>2
    LOOP
        UPDATE WORKER SET
        W_SALARY=W_SALARY+200*(CURRENT_DATE-W_JOINING_DATE)/365
        WHERE WORKER_ID=R1.WORKER_ID;
    END LOOP;
    RETURN TRUE;
END;
$$ LANGUAGE plpgsql;

```

#### **❖ Output :**

postgres/postgres@MC212 ▾

Query Editor   Query History

8 ▾

LOOP

9     UPDATE WORKER SET

10       W\_SALARY=W\_SALARY+200\*(CURRENT\_DATE-W\_JOINING\_DATE)/365

11       WHERE WORKER\_ID=R1.WORKER\_ID;

12     END LOOP;

13     RETURN TRUE;

14 END;

15 \$\$ LANGUAGE plpgsql;

16

17

18 DROP FUNCTION PROMOTION

19 SELECT \*FROM WORKER WHERE (CURRENT\_DATE-W\_JOINING\_DATE)/365>2;

20 SELECT PROMOTION();

Data Output   Explain   Messages   Notifications

DROP FUNCTION

Query returned successfully in 168 msec.

postgres/postgres@MC212 ▾

Query Editor   Query History

8 ▾

LOOP

9     UPDATE WORKER SET

10       W\_SALARY=W\_SALARY+200\*(CURRENT\_DATE-W\_JOINING\_DATE)/365

11       WHERE WORKER\_ID=R1.WORKER\_ID;

12     END LOOP;

13     RETURN TRUE;

14 END;

15 \$\$ LANGUAGE plpgsql;

16

17

18 DROP FUNCTION PROMOTION

19 SELECT \*FROM WORKER WHERE (CURRENT\_DATE-W\_JOINING\_DATE)/365>2;

20 SELECT PROMOTION();

Data Output   Explain   Messages   Notifications

	worker_id [PK] integer	w_first_name character varying (10)	w_last_name character varying (10)	w_address text	w_birth_date date	w_joining_date date	w_salary numeric (6)	
1	21	JAY	PATEL	UMIYA-CHOWK...	1973-02-06	1999-05-01	95074	
2	22	KARAN	KUNJERA	BALAJI-HALL-C...	1978-01-05	1999-05-01	58848	
3	23	SURESH	JANJANIYA	AAMBEDKAR-H...	1979-01-10	1999-05-01	54320	
4	24	ARJUN	SINGN	BALAJI-HALL-C...	1982-01-05	1999-05-01	54320	
5	25	YASHIK	AGARWAL	NANA-MOVA M...	1983-01-02	2001-05-01	82238	
6	26	RAJ	SHARMA	INDIRA CIRCLE ...	1983-01-05	2001-05-01	8223	
7	27	UTAM	PATEL	DHEBAR ROAD ...	1983-04-17	2001-05-01	49343	
8	29	LALIT	PATEL	MAVADI CHOW...	1983-05-19	2004-05-01	74022	
9	30	JAY	THUMMAR	KOTHARIYA RO...	1983-04-17	2004-05-01	42291	
10	31	ARJUN	SINGN	BALAJI-HALL-C...	1982-01-05	2004-05-01	42291	
11	1	YAGNIK	DETHARIYA	UMIYA-CHOWK...	1970-01-01	1999-05-01	[null]	
12	32	SURESH	JANJANIYA	AAMBEDKAR-H...	1979-10-10	2004-05-01	45818	

✓ Successfully run. Total query runtime: 157 msec. 12 rows affected.



Query Editor   Query History

```
1 SET SEARCH_PATH TO dairy_managemant_system;
2
3 CREATE FUNCTION PROMOTION() RETURNS BOOL AS $$
4 DECLARE
5     R1 RECORD;
6 BEGIN
7     FOR R1 IN SELECT *FROM WORKER WHERE (CURRENT_DATE-W_JOINING_DATE)/365>2
8 LOOP
9     UPDATE WORKER SET
10        W_SALARY=W_SALARY+200*(CURRENT_DATE-W_JOINING_DATE)/365
11        WHERE WORKER_ID=R1.WORKER_ID;
12 END LOOP;
13 RETURN TRUE;
```

Data Output   Explain   Messages   Notifications

CREATE FUNCTION

Query returned successfully in 70 msec.

Query Editor Query History

```

8 LOOP
9     UPDATE WORKER SET
10        W_SALARY=W_SALARY+200*(CURRENT_DATE-W_JOINING_DATE)/365
11        WHERE WORKER_ID=R1.WORKER_ID;
12 END LOOP;
13 RETURN TRUE;
14 END;
15 $$ LANGUAGE plpgsql;
16
17
18 DROP FUNCTION PROMOTION
19 SELECT *FROM WORKER WHERE (CURRENT_DATE-W_JOINING_DATE)/365>2;
20 SELECT PROMOTION();

```

Data Output Explain Messages Notifications

	promotion boolean
1	true

Query Editor Query History

```

8 LOOP
9     UPDATE WORKER SET
10        W_SALARY=W_SALARY+200*(CURRENT_DATE-W_JOINING_DATE)/365
11        WHERE WORKER_ID=R1.WORKER_ID;
12 END LOOP;
13 RETURN TRUE;
14 END;
15 $$ LANGUAGE plpgsql;
16
17
18 DROP FUNCTION PROMOTION
19 SELECT *FROM WORKER WHERE (CURRENT_DATE-W_JOINING_DATE)/365>2;
20 SELECT PROMOTION();

```

Data Output Explain Messages Notifications

	worker_id [PK] integer	w_first_name character varying (10)	w_last_name character varying (10)	w_address text	w_birth_date date	w_joining_date date	w_salary numeric (6)
1	1	YAGNIK	DETHARIYA	UMIYA-CHOWK...	1970-01-01	1999-05-01	[null]
2	32	SURESH	JANJANIYA	AAMBEDKAR-H...	1979-10-10	2004-05-01	49328
3	21	JAY	PATEL	UMIYA-CHOWK...	1973-02-06	1999-05-01	99585
4	22	KARAN	KUNJERA	BALAJI-HALL-C...	1978-01-05	1999-05-01	63359
5	23	SURESH	JANJANIYA	AAMBEDKAR-H...	1979-01-10	1999-05-01	58831
6	24	ARJUN	SINGN	BALAJI-HALL-C...	1982-01-05	1999-05-01	58831
7	25	YASHIK	AGARWAL	NANA-MOVA M...	1983-01-02	2001-05-01	86349
8	26	RAJ	SHARMA	INDIRA CIRCLE ...	1983-01-05	2001-05-01	12334
9	27	UTAM	PATEL	DHEBAR ROAD ...	1983-04-17	2001-05-01	53454
10	29	LALIT	PATEL	MAVADI CHOW...	1983-05-19	2004-05-01	77532
11	30	JAY	THUMMAR	KOTHARIYA RO...	1983-04-17	2004-05-01	45801
12	31	ARJUN	SINGN	BALAJI-HALL-C...	1982-01-05	2004-05-01	45801

**Store Procedure:-**

```

CREATE PROCEDURE PRO1(IN O1 VARCHAR(5),IN Y INTEGER,INOUT C1
INTEGER) LANGUAGE plpgsql AS $$
DECLARE
    R1 RECORD;
BEGIN
    FOR R1 IN SELECT *FROM WORKER
    LOOP
        IF(R1.WORKER_ID IN (SELECT W_WORKER_ID FROM WORKING
WHERE W_OUTLET_ID=O1) AND (CURRENT_DATE-R1.W_JOINING_DATE)/365>Y)
THEN
            C1=C1+1;
        END IF;
    END LOOP;
END; $$;

```

Query Editor		Query History
27	END IF;	
28	END LOOP;	
29	RETURN C1;	
30	END;	
31	\$\$ LANGUAGE plpgsql;	
32		
33	CREATE PROCEDURE PRO1(IN O1 VARCHAR(5),IN Y INTEGER,INOUT C1 INTEGER) LANGUAGE plpgsql AS \$\$	
34	DECLARE	
35	R1 RECORD;	
36	BEGIN	
37	FOR R1 IN SELECT *FROM WORKER	
38	LOOP	
39	IF(R1.WORKER_ID IN (SELECT W_WORKER_ID FROM WORKING WHERE W_OUTLET_ID=O1) AND (CURRENT_DATE-R1.W_JOINING_DATE)/365>Y) THEN	
40	C1=C1+1;	
41	END IF;	
42	END LOOP;	
43	END; \$\$;	
44		
45	CALL PRO1('MAIN',20,0)	
46		

  

Data Output		Explain	Messages	Notifications
c1	integer			
1	4			