EASTERN INTERNATIONAL UNIVERSITY

SCHOOL OF COMPUTING

AND INFORMATION TECHNOLOGY

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Practice Assignment 6

Practice Assignment – Quarter 4, 2023-2024

Course Name: Database

Course Code: CSE 301

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***Instruction*:**

* Students are allowed to write their answers (like SQL queries, Screenshot of outputs, etc.) in a word file (Answer sheet) provided by the instructor. After finishing the assignment, students must convert the word file (Answer sheet) into a PDF file. Finally, students upload the file in Moodle.

I. Create the following tables in a new database 'Assignment3':

a) *Add, delete, update value for the columns in the table related to calculate new values and constraints.*

> ***Note: executing the UPDATE command: In MySQL Workbench if the announcement is 1175 error.***
> 1. Go to Edit --> Preferences
> 2. Click "SQL Editor" tab and uncheck "Safe Updates" check box
> 3. Query --> Reconnect to Server // logout and then login
> 4. Now execute your SQL query

1. How to check constraints in a table?

Example:

SELECT CONSTRAINT_NAME, CONSTRAINT_TYPE

FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS

WHERE TABLE_NAME = 'salesman';
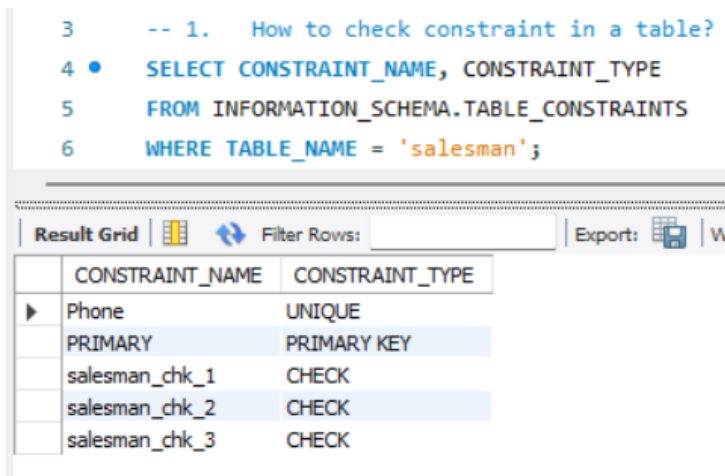
2. Create a separate table name as "ProductCost" from the "Product" table, which contains the information about product name and its buying price.

```
CREATE TABLE ProductCost AS
SELECT Product_Name, Cost_Price
FROM product;
```

```
1 •    SELECT * FROM salemanagement.productcost;
```

Product_Name	Cost_Price
TV	800.0000
Laptop	1100.0000
AC	300.0000
Modem	230.0000
Pen	8.0000
Mouse	105.0000
Keyboard	90.0000
Headset	40.0000

3. Compute the profit percentage for all products. Note: profit = (sell-cost)/cost*100

```
ALTER TABLE product
ADD COLUMN profit DECIMAL(15,2);

update product
SET profit = (Sell_Price - Cost_Price)*100/Cost_Price;
```

```
1 •    SELECT * FROM salemanagement.product;
```

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price	profit	Total_Quantity	Discount_Rate
P1001	TV	10	30	1000.0000	800.0000	25.00	40	5.00
P1002	Laptop	12	25	1500.0000	1100.0000	36.36	37	5.00
P1003	AC	23	10	400.0000	300.0000	33.33	33	10.00
P1004	Modem	22	16	250.0000	230.0000	8.70	38	10.00
P1005	Pen	19	13	12.0000	8.0000	50.00	32	5.00
P1006	Mouse	5	10	100.0000	105.0000	-4.76	15	0.00
P1007	Keyboard	45	60	120.0000	90.0000	33.33	105	10.00
P1008	Headset	63	75	50.0000	40.0000	25.00	138	10.00

4. If a salesman exceeded his sales target by more than equal to 75%, his remarks should be 'Good'.

```
alter table salesman
add column Remark varchar(10);

update salesman
set Remark = 'Good'
where (Target_Achieved*100)/Sales_Target >= 75;
```

```
1 •    SELECT * FROM salemanagement.salesman;
```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Target_Achieved	Phone	Remark
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000.0000	50	35	0902361123	Average
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000.0000	100	110	0903216542	Good
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500.0000	40	30	0904589632	Good
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500.0000	70	72	0908654723	Good
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	60	48	0903213659	Good
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000.0000	80	55	0907853497	Average
S007	Quang	Chanh My	Da Lat	700032	Lam Dong	25000.0000	90	95	0900853487	Good
S008	Hoa	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	50	75	0998213659	Good

5. If a salesman does not reach more than 75% of his sales objective, he is labeled as 'Average'.

```
update salesman
set Remark='Average'
where (Target_Achieved*100)/Sales_Target >= 50 and (Target_Achieved*100)/Sales_Target < 75;
```

```
1 •    SELECT * FROM salemanagement.salesman;
```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Target_Achieved	Phone	Remark
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000.0000	50	35	0902361123	Average
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000.0000	100	110	0903216542	Good
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500.0000	40	30	0904589632	Good
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500.0000	70	72	0908654723	Good
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	60	48	0903213659	Good
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000.0000	80	55	0907853497	Average
S007	Quang	Chanh My	Da Lat	700032	Lam Dong	25000.0000	90	95	0900853487	Good
S008	Hoa	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	50	75	0998213659	Good

6. If a salesman does not meet more than half of his sales objective, he is considered 'Poor'.

```
update salesman
set Remark = 'Poor'
where (Target_Achieved*100)/Sales_Target < 50;
```

```
1 •   SELECT * FROM salemanagement.salesman;
```

esult Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: TA

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Target_Achieved	Phone	Remark
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000.0000	50	35	0902361123	Average
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000.0000	100	110	0903216542	Good
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500.0000	40	30	0904589632	Good
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500.0000	70	72	0908654723	Good
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	60	48	0903213659	Good
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000.0000	80	55	0907853497	Average
S007	Quang	Chanh My	Da Lat	700032	Lam Dong	25000.0000	90	95	0900853487	Good
S008	Hoa	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	50	75	0998213659	Good

7. Find the total quantity for each product. (Query)

```
39 •    select product_number, product_name, Quantity_On_Hand + Quantity_Sell
40      as Total_Quantity
41      from product;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: TA

product_number	product_name	Total_Quantity
P1001	TV	40
P1002	Laptop	37
P1003	AC	33
P1004	Modem	38
P1005	Pen	32
P1006	Mouse	15
P1007	Keyboard	105
P1008	Headset	138

8. Add a new column and find the total quantity for each product.

```
alter table product
add column Total_Quantity int;


update product
set Total_Quantity = Quantity_On_Hand + Quantity_Sell;
```

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price	profit	Total_Quantity	Discount_Rate
P1001	TV	10	30	1000.0000	800.0000	25.00	40	5.00
P1002	Laptop	12	25	1500.0000	1100.0000	36.36	37	5.00
P1003	AC	23	10	400.0000	300.0000	33.33	33	10.00
P1004	Modem	22	16	250.0000	230.0000	8.70	38	10.00
P1005	Pen	19	13	12.0000	8.0000	50.00	32	5.00
P1006	Mouse	5	10	100.0000	105.0000	-4.76	15	0.00
P1007	Keyboard	45	60	120.0000	90.0000	33.33	105	10.00
P1008	Headset	63	75	50.0000	40.0000	25.00	138	10.00

9. If the Quantity on hand for each product is more than 10, change the discount rate to 10 otherwise set to 5.

```
alter table product
add column Discount_Rate decimal (5,2);

update product
set Discount_Rate = case
        when Quantity_On_Hand > 10 then 10
        else 5
    end;
```

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price	profit	Total_Quantity	Discount_Rate
P1001	TV	10	30	1000.0000	800.0000	25.00	40	5.00
P1002	Laptop	12	25	1500.0000	1100.0000	36.36	37	5.00
P1003	AC	23	10	400.0000	300.0000	33.33	33	10.00
P1004	Modem	22	16	250.0000	230.0000	8.70	38	10.00
P1005	Pen	19	13	12.0000	8.0000	50.00	32	5.00
P1006	Mouse	5	10	100.0000	105.0000	-4.76	15	0.00
P1007	Keyboard	45	60	120.0000	90.0000	33.33	105	10.00
P1008	Headset	63	75	50.0000	40.0000	25.00	138	10.00

10. If the Quantity on hand for each product is more than equal to 20, change the discount rate to 10, if it is between 10 and 20 then change to 5, if it is more than 5 then change to 3 otherwise set to 0.

```
update product
set Discount_Rate = case
        when Quantity_On_Hand >= 20 then 10
        when Quantity_On_Hand >=10 then 5
        when Quantity_On_Hand >5 then 3
        else 0
    end;
```

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price	profit	Total_Quantity	Discount_Rate
P1001	TV	10	30	1000.0000	800.0000	25.00	40	5.00
P1002	Laptop	12	25	1500.0000	1100.0000	36.36	37	5.00
P1003	AC	23	10	400.0000	300.0000	33.33	33	10.00
P1004	Modem	22	16	250.0000	230.0000	8.70	38	10.00
P1005	Pen	19	13	12.0000	8.0000	50.00	32	5.00
P1006	Mouse	5	10	100.0000	105.0000	-4.76	15	0.00
P1007	Keyboard	45	60	120.0000	90.0000	33.33	105	10.00
P1008	Headset	63	75	50.0000	40.0000	25.00	138	10.00

11. The first number of pin codes in the client table should start with 7.

```
alter table clients
add check (Pincode like '7%');
```

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
C104	Tran Tuan	Phu Tan	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000

b) Creating and using view:

Statements:

1. *Creating a view*

   ```
   CREATE [OR REPLACE] VIEW view_name AS select-statement;
   ```
   OR REPLACE - added to overwrite the old view with the same name if applicable.

2. *Changing a view*

   ```
   ALTER VIEW view_name AS select_statement;
   ```
3. *Renaming a view*

   ```
   RENAME TABLE view_name TO new_view_name;
   ```
4. *Deleting a view*

   ```
   DROP VIEW [IF EXISTS] view_name;
   ```

---

12. Creates a view name as clients_view that shows all customers information from Thu Dau Mot.

```
create view clients_view as
select *
from clients
where City = 'Thu Dau Mot';
```

```
79 •    select * from clients_view;
```

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
C104	Tran Tuan	Phu Tan	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000

13. Drop the "client_view".

```
drop view clients_view;
```

14. Creates a view name as clients_order that shows all clients and their order details from Thu Dau Mot.

```sql
create view clients_order as
select c.Client_Number,
       c.Client_Name,
       c.Address,
       c.City,
       c.Pincode,
       c.Province,
       so.Order_Number,
       so.Order_Date,
       so.Delivery_Status,
       so.Delivery_Date,
       so.Order_Status
from clients c
join SalesOrder so ON c.Client_Number = so.Client_Number
where c.City = 'Thu Dau Mot';
```

Client_Number	Client_Name	Address	City	Pincode	Province	Order_Number	Order_Date	Delivery_Status	Delivery_Date	Order_Status
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	O20002	2022-01-25	Delivered	2022-02-15	Cancelled
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	O20008	2022-04-16	Ready to Ship	NULL	In Process
C104	Tran Tuan	Phu Tan	Thu Dau Mot	700080	Binh Duong	O20004	2022-02-10	Delivered	2022-04-23	Successful

15. Creates a view that selects every product in the "Products" table with a sell price higher than the average sell price.

```sql
create view product_above_average as
select *
from product
where Sell_Price > (select AVG(Sell_Price)
                    from product);
```

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price	profit	Total_Quantity	Discount_Rate
P1001	TV	10	30	1000.0000	800.0000	25.00	40	5.00
P1002	Laptop	12	25	1500.0000	1100.0000	36.36	37	5.00

16. Creates a view name as salesman_view that shows all salesman information and products (product names, product price, quantity order) were sold by them.

```sql
create view salesman_view as
select s.Salesman_Number,s.Salesman_Name,s.Address, s.city, p.Product_Name, p.Sell_Price, p.Cost_Price, sod.Order_Quantity
from salesman s
inner join salesorder so on s.Salesman_Number = so.Salesman_Number
inner join salesorderdetails sod on so.Order_Number = sod.Order_Number
inner join product p  on sod.Product_Number = p.Product_Number;
```

Salesman_Number	Salesman_Name	Address	city	Product_Name	Sell_Price	Cost_Price	Order_Quantity
S001	Huu	Phu Tan	Ho Chi Minh	Pen	12.0000	8.0000	6
S001	Huu	Phu Tan	Ho Chi Minh	Mouse	100.0000	105.0000	10
S001	Huu	Phu Tan	Ho Chi Minh	Laptop	1500.0000	1100.0000	20
S002	Phat	Tan An	Hanoi	AC	400.0000	300.0000	12
S003	Khoa	Phu Hoa	Thu Dau Mot	TV	1000.0000	800.0000	5
S003	Khoa	Phu Hoa	Thu Dau Mot	Laptop	1500.0000	1100.0000	4
S003	Khoa	Phu Hoa	Thu Dau Mot	Keyboard	120.0000	90.0000	10
S003	Khoa	Phu Hoa	Thu Dau Mot	Modem	250.0000	230.0000	3
S003	Khoa	Phu Hoa	Thu Dau Mot	TV	1000.0000	800.0000	8
S003	Khoa	Phu Hoa	Thu Dau Mot	Headset	50.0000	40.0000	15
S003	Khoa	Phu Hoa	Thu Dau Mot	Laptop	1500.0000	1100.0000	14
S004	Tien	Phu Hoa	Dai An	Headset	50.0000	40.0000	2
S004	Tien	Phu Hoa	Dai An	Pen	12.0000	8.0000	3
S004	Tien	Phu Hoa	Dai An	TV	1000.0000	800.0000	2
S005	Deb	Hoa Phu	Thu Dau Mot	Laptop	1500.0000	1100.0000	5
S005	Deb	Hoa Phu	Thu Dau Mot	Keyboard	120.0000	90.0000	6
S006	Tin	Chanh My	Da Lat	Modem	250.0000	230.0000	8
S006	Tin	Chanh My	Da Lat	Mouse	100.0000	105.0000	11
S006	Tin	Chanh My	Da Lat	TV	1000.0000	800.0000	9
S007	Quang	Chanh My	Da Lat	Headset	50.0000	40.0000	15
S007	Quang	Chanh My	Da Lat	Keyboard	120.0000	90.0000	10
S008	Hoa	Hoa Phu	Thu Dau Mot	Keyboard	120.0000	90.0000	20
S008	Hoa	Hoa Phu	Thu Dau Mot	AC	400.0000	300.0000	5

17. Creates a view name as sale_view that shows all salesman information and products (product names, product price, quantity order) were sold by them with order_status = 'Successful'.

```sql
create view sale_view as
select s.*, p.Product_Name, p.Sell_Price, sod.Order_Quantity, so.Order_Status
from salesman s
inner join salesorder so on s.Salesman_Number = so.Salesman_Number
inner join salesorderdetails sod on sod.Order_Number = so.Order_Number
inner join product p on p.Product_Number = sod.Product_Number
where so.Order_Status = 'Successful';
```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Target_Achieved	Phone	Remark	Product_Name	Sell_Price	Order_Quantity	Order_Status
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500.0000	40	30	0904589632	Good	TV	1000.0000	5	Successful
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500.0000	40	30	0904589632	Good	Laptop	1500.0000	4	Successful
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000.0000	100	110	0903216542	Good	AC	400.0000	12	Successful
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500.0000	40	30	0904589632	Good	Modem	250.0000	3	Successful
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000.0000	50	35	0902361123	Average	Pen	12.0000	6	Successful
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500.0000	70	72	0908654723	Good	Headset	50.0000	2	Successful
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000.0000	80	55	0907853497	Average	Mouse	100.0000	11	Successful
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000.0000	80	55	0907853497	Average	TV	1000.0000	9	Successful
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500.0000	70	72	0908654723	Good	Pen	12.0000	2	Successful
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500.0000	70	72	0908654723	Good	TV	1000.0000	2	Successful
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000.0000	50	35	0902361123	Average	Laptop	1500.0000	20	Successful
S007	Quang	Chanh My	Da Lat	700032	Lam Dong	25000.0000	90	95	0900853487	Good	Headset	50.0000	15	Successful
S007	Quang	Chanh My	Da Lat	700032	Lam Dong	25000.0000	90	95	0900853487	Good	Keyboard	120.0000	10	Successful

18. Creates a view name as sale_amount_view that shows all salesman information and sum order quantity of product greater than and equal 20 pieces were sold by them with order_status = 'Successful'.

```
1 •    SELECT * FROM salemanagement.sale_amount_view;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Target_Achieved	Phone	Remark	Total_Order_Quantity
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000.0000	50	35	0902361123	Average	26
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000.0000	80	55	0907853497	Average	20
S007	Quang	Chanh My	Da Lat	700032	Lam Dong	25000.0000	90	95	0900853487	Good	25

II. Additional assignments about Constraint

19. Amount paid and amount due should not be negative when you are inserting the data.

```
ALTER TABLE clients
ADD CONSTRAINT check_amount_paid_non_negative CHECK (
        Amount_Paid >= 0 and Amount_Due >=0
);
```

20. Remove the constraint from pincode;

```
alter table clients drop constraint check_pincode;
```

21. The sell price and cost price should be unique.

```
ALTER TABLE product
ADD CONSTRAINT unique_sell_price UNIQUE (Sell_Price);


ALTER TABLE product
ADD CONSTRAINT unique_cost_price UNIQUE (Cost_Price);
```

22. The sell price and cost price should not be unique.

```
ALTER TABLE product
DROP CONSTRAINT unique_sell_price;


ALTER TABLE product
DROP CONSTRAINT unique_cost_price;
```

23. Remove unique constraints from the product name.

```
ALTER TABLE product
ADD CONSTRAINT unique_product_name unique (product_name);


ALTER TABLE product
DROP CONSTRAINT unique_product_name;
```

9

24. Update the delivery status to "Delivered" for the product number P1007.

```
update SalesOrder so
inner join SalesOrderDetails sod on so.Order_Number = sod.Order_Number
inner join Product p on p.Product_Number = sod.Product_Number
set so.Delivery_Status = 'Delivered'
where p.Product_Number = 'P1007';
```

25. Change address and city to 'Phu Hoa' and 'Thu Dau Mot' where client number is C104.

```
update clients
set Address = 'Phu Hoa', city = 'Thu Dau Mot'
where Client_Number = 'C104';
```

C104	Tran Tuan	Phu Hoa	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000

26. Add a new column to the "Product" table named "Exp_Date", data type is Date.

```
alter table product
add column Exp_Date date;
```

27. Add a new column to the "Clients" table named "Phone", data type is varchar and size is 15.

```
alter table clients
add column Phone varchar(15);
```

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due	Phone
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000	NULL
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000	NULL
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000	NULL
C104	Tran Tuan	Phu Hoa	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000	NULL
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000	NULL
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000	NULL
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000	NULL
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000	NULL
C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000	NULL
C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000	NULL
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

28. Update remarks as "Good" for all salesmen.

```
SET SQL_SAFE_UPDATES = 0;
UPDATE Salesman
SET remark = 'Good';
```

Salesman_Number	Salesman_Name	Address	City	Pincode	Province	Salary	Sales_Target	Target_Achieved	Phone	Remark
S001	Huu	Phu Tan	Ho Chi Minh	700002	Ho Chi Minh	15000.0000	50	35	0902361123	Good
S002	Phat	Tan An	Hanoi	700005	Hanoi	25000.0000	100	110	0903216542	Good
S003	Khoa	Phu Hoa	Thu Dau Mot	700051	Binh Duong	17500.0000	40	30	0904589632	Good
S004	Tien	Phu Hoa	Dai An	700023	Binh Duong	16500.0000	70	72	0908654723	Good
S005	Deb	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	60	48	0903213659	Good
S006	Tin	Chanh My	Da Lat	700032	Lam Dong	20000.0000	80	55	0907853497	Good
S007	Quang	Chanh My	Da Lat	700032	Lam Dong	25000.0000	90	95	0900853487	Good
S008	Hoa	Hoa Phu	Thu Dau Mot	700051	Binh Duong	13500.0000	50	75	0998213659	Good

29. Change remarks to "bad" whose salesman number is "S004".

| S004 | Tien | Phu Hoa | Dai An | 700023 | Binh Duong | 16500.0000 | 70 | 72 | 0908654723 | Bad |

30. Modify the data type of "Phone" in the "Clients" table with varchar from size 15 to size is 10.

```
alter table clients
modify phone varchar(10);
```

Table: clients

Columns:

Client_Number	varchar(10) PK
Client_Name	varchar(25)
Address	varchar(30)
City	varchar(30)
Pincode	int
Province	char(25)
Amount_Paid	decimal(15,
Amount_Due	decimal(15,
phone	varchar(10)

31. Delete the "Phone" column from the "Clients" table.

```
alter table clients
drop column phone;
```

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
C104	Tran Tuan	Phu Hoa	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000

32. alter table Clients drop column Phone;

```
alter table clients
drop column phone;
```

Client_Number	Client_Name	Address	City	Pincode	Province	Amount_Paid	Amount_Due
C101	Mai Xuan	Phu Hoa	Dai An	700001	Binh Duong	10000.0000	5000.0000
C102	Le Xuan	Phu Hoa	Thu Dau Mot	700051	Binh Duong	18000.0000	3000.0000
C103	Trinh Huu	Phu Loi	Da Lat	700051	Lam Dong	7000.0000	3200.0000
C104	Tran Tuan	Phu Hoa	Thu Dau Mot	700080	Binh Duong	8000.0000	0.0000
C105	Ho Nhu	Chanh My	Hanoi	700005	Hanoi	7000.0000	150.0000
C106	Tran Hai	Phu Hoa	Ho Chi Minh	700002	Ho Chi Minh	7000.0000	1300.0000
C107	Nguyen Thanh	Hoa Phu	Dai An	700023	Binh Duong	8500.0000	7500.0000
C108	Nguyen Sy	Tan An	Da Lat	700032	Lam Dong	15000.0000	1000.0000
C109	Duong Thanh	Phu Hoa	Ho Chi Minh	700011	Ho Chi Minh	12000.0000	8000.0000
C110	Tran Minh	Phu My	Hanoi	700005	Hanoi	9000.0000	1000.0000

33. Change the sell price of Mouse to 120.

```
update product
set sell_price = 120
where product_name = 'Mouse';
```

P1006	Mouse	5	10	120.0000	105.0000	-4.76	15	0.00	NULL

34. Change the city of client number C104 to "Ben Cat".

```
update clients
set city = 'Ben Cat'
where Client_Number = 'C104';
```

C104	Tran Tuan	Phu Hoa	Ben Cat	700080	Binh Duong	8000.0000	0.0000

35. If On_Hand_Quantity greater than 5, then 10% discount. If On_Hand_Quantity is greater than 10, then 15% discount. Otherwise, no discount.

```
update product
set Discount_Rate = case
    when Quantity_On_Hand > 10 then 0.15
    when Quantity_On_Hand > 5 then 0.1
    else 0
end;
```

Product_Number	Product_Name	Quantity_On_Hand	Quantity_Sell	Sell_Price	Cost_Price	profit	Total_Quantity	Discount_Rate	Exp_Date
P1001	TV	10	30	1000.0000	800.0000	25.00	40	0.10	NULL
P1002	Laptop	12	25	1500.0000	1100.0000	36.36	37	0.15	NULL
P1003	AC	23	10	400.0000	300.0000	33.33	33	0.15	NULL
P1004	Modem	22	16	250.0000	230.0000	8.70	38	0.15	NULL
P1005	Pen	19	13	12.0000	8.0000	50.00	32	0.15	NULL
P1006	Mouse	5	10	120.0000	105.0000	-4.76	15	0.00	NULL
P1007	Keyboard	45	60	120.0000	90.0000	33.33	105	0.15	NULL
P1008	Headset	63	75	50.0000	40.0000	25.00	138	0.15	NULL