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Institute of Computer Technology

B. Tech Computer Science and Engineering

Sub: Database Management System (2CSE301)

Practical 2: Performing Deletion, Modifying, Altering, Updating and Viewing records based on conditions on tables.

Scenario : Mohan is reviewing the work done till now and suggest IT Company to create one more table named Employee to have their records. They are applying CRUD Operation i.e. changes in table structure and data modified with different fields.

Exercise:

Solve the following queries using the database given in practical 1.

A) Retrieving records from table.

1) Find out the names of all clients.

```
select Name from client_master;
```



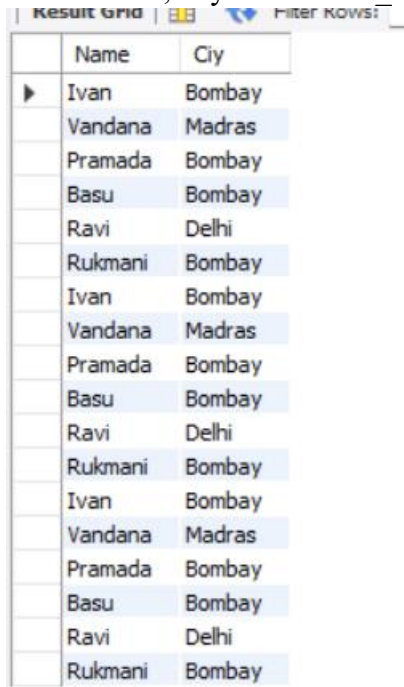
The screenshot shows a database query result grid. At the top, there is a toolbar with 'Result Grid', a grid icon, and a 'Filter Rows:' button. Below the toolbar is a table with one column labeled 'Name'. The table contains 16 rows of names, which are: Ivan, Vandana, Pramada, Basu, Ravi, Rukmani, Ivan, Vandana, Pramada, Basu, Ravi, Rukmani, Ivan, Vandana, Pramada, Basu, Ravi, and Rukmani. The first row is highlighted with a blue background.

Name
Ivan
Vandana
Pramada
Basu
Ravi
Rukmani
Ivan
Vandana
Pramada
Basu
Ravi
Rukmani
Ivan
Vandana
Pramada
Basu
Ravi
Rukmani

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2) Retrieve the list of names and the cities of all the clients

select Name,City from client_master;

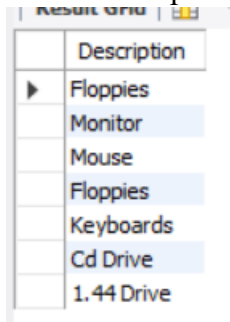


The screenshot shows a 'Result Grid' window with a table containing two columns: 'Name' and 'City'. The table lists 18 rows of client data, with names and cities alternating between Ivan, Vandana, Pramada, Basu, Ravi, and Rukmani, and cities between Bombay and Madras.

Name	City
Ivan	Bombay
Vandana	Madras
Pramada	Bombay
Basu	Bombay
Ravi	Delhi
Rukmani	Bombay
Ivan	Bombay
Vandana	Madras
Pramada	Bombay
Basu	Bombay
Ravi	Delhi
Rukmani	Bombay
Ivan	Bombay
Vandana	Madras
Pramada	Bombay
Basu	Bombay
Ravi	Delhi
Rukmani	Bombay

3) List the various products available from the product_master table.

select Description from product_master;

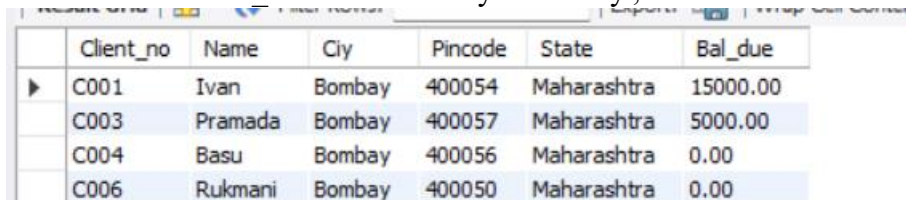


The screenshot shows a 'Result Grid' window with a table containing one column: 'Description'. The table lists 7 rows of product data: Floppies, Monitor, Mouse, Floppies, Keyboards, Cd Drive, and 1.44 Drive.

Description
Floppies
Monitor
Mouse
Floppies
Keyboards
Cd Drive
1.44 Drive

4) List all the clients who are located in Bombay.

select * from client_master where Ciy='Bombay';

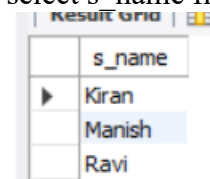


The screenshot shows a 'Result Grid' window with a table containing 7 columns: 'Client_no', 'Name', 'Ciy', 'Pincode', 'State', and 'Bal_due'. The table lists 4 rows of client data for clients located in Bombay.

Client_no	Name	Ciy	Pincode	State	Bal_due
C001	Ivan	Bombay	400054	Maharashtra	15000.00
C003	Pramada	Bombay	400057	Maharashtra	5000.00
C004	Basu	Bombay	400056	Maharashtra	0.00
C006	Rukmani	Bombay	400050	Maharashtra	0.00

5) Find the names of the salesman who have a salary equal to Rs. 3000

select s_name from salesman_master where Sal_amt=3000;



The screenshot shows a 'Result Grid' window with a table containing one column: 's_name'. The table lists 3 rows of salesman data: Kiran, Manish, and Ravi.

s_name
Kiran
Manish
Ravi

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6) List out only unique values for the city of client_master table

select distinct ciy from client_master;

Result Grid
ciy
Bombay
Madras
Delhi

7) Display product_master table according to the sell_price of product.

select * from product_master order by Sell_price;

	Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_lvl	Sell_price	Cost_price
▶	P001	Floppies	5.00	Piece	100	20	525.00	500.00
	P004	Floppies	5.00	Piece	100	20	525.00	500.00
	P003	Mouse	5.00	Piece	20	5	1050.00	1000.00
	P005	Keyboards	2.00	Piece	10	3	3150.00	3050.00
	P006	Cd Drive	2.50	Piece	10	3	5250.00	5100.00
	P007	1.44 Drive	4.00	Piece	10	3	8400.00	8000.00
	P002	Monitor	6.00	Piece	10	3	12000.00	11280.00

8) Display product_master table according to the sell_price and cost_price.

select * from product_master order by Sell_price, Cost_price;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_lvl	Sell_price	Cost_price
▶	P001	Floppies	5.00	Piece	100	20	525.00	500.00
	P004	Floppies	5.00	Piece	100	20	525.00	500.00
	P003	Mouse	5.00	Piece	20	5	1050.00	1000.00
	P005	Keyboards	2.00	Piece	10	3	3150.00	3050.00
	P006	Cd Drive	2.50	Piece	10	3	5250.00	5100.00
	P007	1.44 Drive	4.00	Piece	10	3	8400.00	8000.00
	P002	Monitor	6.00	Piece	10	3	12000.00	11280.00

9) Display product_no, description in descending order of sell_price for product_master table.

select * from product_master order by Sell_price DESC;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_lvl	Sell_price	Cost_price
▶	P002	Monitor	6.00	Piece	10	3	12000.00	11280.00
	P007	1.44 Drive	4.00	Piece	10	3	8400.00	8000.00
	P006	Cd Drive	2.50	Piece	10	3	5250.00	5100.00
	P005	Keyboards	2.00	Piece	10	3	3150.00	3050.00
	P003	Mouse	5.00	Piece	20	5	1050.00	1000.00
	P001	Floppies	5.00	Piece	100	20	525.00	500.00
	P004	Floppies	5.00	Piece	100	20	525.00	500.00

B) Updating records in a table.

1) Change the city of client_no'C002' to 'Bombay'.

update client_master set Ciy='Bombay' where client_no='C002';

Client_no	Name	Ciy	Pincod	State	Bal_due
C001	Ivan	Bombay	400054	Maharashtra	15000.00
C002	Vandana	Bombay	780001	Tamil Nadu	0.00
C003	Pramada	Bombay	400057	Maharashtra	5000.00
C004	Basu	Bombay	400056	Maharashtra	0.00
C005	Ravi	Delhi	100001	Gujarat	2000.00
C006	Rukmani	Bombay	400050	Maharashtra	0.00

2) Change the bal_due of client_no'C001' to Rs.1000

update client_master set Bal_due=1000 where client_no='C001';

Result Grid						
Filter Rows:						
Export:						
Wrap Cell Content:						
	Client_no	Name	Ciy	Pincod	State	Bal_due
▶	C001	Ivan	Bombay	400054	Maharashtra	1000.00
	C002	Vandana	Bombay	780001	Tamil Nadu	0.00
	C003	Pramada	Bombay	400057	Maharashtra	5000.00
	C004	Basu	Bombay	400056	Maharashtra	0.00
	C005	Ravi	Delhi	100001	Gujarat	2000.00
	C006	Rukmani	Bombay	400050	Maharashtra	0.00
	C001	Ivan	Bombay	400054	Maharashtra	1000.00

3) Change the cost price of Floppies to Rs. 950.00

update product_master set Cost_price=950 where description='Floppies';

Result Grid								
Filter Rows:								
Export:								
Wrap Cell Content:								
	Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_lvl	Sell_price	Cost_price
▶	P001	Floppies	5.00	Piece	100	20	525.00	950.00
	P002	Monitor	6.00	Piece	10	3	12000.00	11280.00
	P003	Mouse	5.00	Piece	20	5	1050.00	1000.00
	P004	Floppies	5.00	Piece	100	20	525.00	950.00
	P005	Keyboards	2.00	Piece	10	3	3150.00	3050.00
	P006	Cd Drive	2.50	Piece	10	3	5250.00	5100.00
	P007	1.44 Drive	4.00	Piece	10	3	8400.00	8000.00

4) Change the city of the salesman to Mumbai.



update salesman_master set City='Bombay';

Result Grid									
Filter Rows:									
Export:									
Wrap Cell Content:									
	S_no	S_name	City	Pincod	State	Sal_amt	Tgt_to_get	Ytd_sales	remarks
▶	S001	Kiran	Bombay	400002	Maharashtra	3000.00	100.00	50.00	Excellent
	S002	Manish	Bombay	400001	Maharashtra	3000.00	200.00	100.00	Good
	S003	Ravi	Bombay	400032	Maharashtra	3000.00	200.00	100.00	Average
	S004	Ashish	Bombay	400044	Maharashtra	3500.00	200.00	150.00	Good

Deleting records in a table:


1) Delete all salesman from the salesman_master whose salaries are equal to Rs. 3500.
delete from salesman_master where Sal_amt=3500;

Result Grid





Filter Rows:

Export:



Wrap Cell Content:



	S_no	S_name	City	Pincode	State	Sal_amt	Tgt_to_get	Ytd_sales	remarks
▶	S001	Kiran	Bombay	400002	Maharashtar	3000.00	100.00	50.00	Excellent
	S002	Manish	Bombay	400001	Maharashta	3000.00	200.00	100.00	Good
	S003	Ravi	Bombay	400032	Maharashta	3000.00	200.00	100.00	Average

2) Delete all products from product_master where the quantity on hand is equal to 100.
delete from product_master where Qty_on_hand=100;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_lvl	Sell_price	Cost_price
	P002	Monitor	6.00	Piece	10	3	12000.00	11280.00
	P003	Mouse	5.00	Piece	20	5	1050.00	1000.00
	P005	Keyboards	2.00	Piece	10	3	3150.00	3050.00
	P006	Cd Drive	2.50	Piece	10	3	5250.00	5100.00
	P007	1.44 Drive	4.00	Piece	10	3	8400.00	8000.00

3) Delete from client_master where the column state holds the value 'Tamil Nadu'.
delete from client_master where State='Tamil nadu';


Result Grid		Filter Rows:		Export:		Wrap Cell Content:			
	S_no	S_name	City	Pincode	State	Sal_amt	Tgt_to_get	Ytd_sales	remarks
▶	S001	Kiran	Bombay	400002	Maharashtar	3000.00	100.00	50.00	Excellent
	S002	Manish	Bombay	400001	Maharashta	3000.00	200.00	100.00	Good
	S003	Ravi	Bombay	400032	Maharashta	3000.00	200.00	100.00	Average


E) Altering the table structure:

1) Add a column called 'telephone' of datatype 'number' and size=10 to the client_master table.

alter table client_master add telephone numeric(10);

Result Grid

 Filter Rows:

Export: 

Wrap Cell Content: ☐

	Client_no	Name	Ciy	Pincode	State	Bal_due	telephone
▶	C001	Ivan	Bombay	400054	Maharashtra	1000.00	NULL
	C003	Pramada	Bombay	400057	Maharashtra	5000.00	NULL
	C004	Basu	Bombay	400056	Maharashtra	0.00	NULL
	C005	Ravi	Delhi	100001	Gujarat	2000.00	NULL
	C006	Rukmani	Bombay	400050	Maharashtra	0.00	NULL
	C001	Ivan	Bombay	400054	Maharashtra	1000.00	NULL
	C003	Pramada	Bombay	400057	Maharashtra	5000.00	NULL
	C004	Basu	Bombay	400056	Maharashtra	0.00	NULL
	C005	Ravi	Delhi	100001	Gujarat	2000.00	NULL
	C006	Rukmani	Bombay	400050	Maharashtra	0.00	NULL
	C001	Ivan	Bombay	400054	Maharashtra	1000.00	NULL
	C003	Pramada	Bombay	400057	Maharashtra	5000.00	NULL
	C004	Basu	Bombay	400056	Maharashtra	0.00	NULL
	C005	Ravi	Delhi	100001	Gujarat	2000.00	NULL
	C006	Rukmani	Bombay	400050	Maharashtra	0.00	NULL

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2) Change the size of sell_price column in product_master to 10,2.

alter table product_master modify Sell_price numeric(10,2);

Field	Type	Null	Key	Default	Extra
Product_no	varchar(6)	YES		NULL	
Description	varchar(15)	YES		NULL	
P_percent	decimal(4,2)	YES		NULL	
U_measure	varchar(10)	YES		NULL	
Qty_on_hand	decimal(8,0)	YES		NULL	
Reorder_lvl	decimal(8,0)	YES		NULL	
Sell_price	decimal(10,2)	YES		NULL	
Cost_price	decimal(8,2)	YES		NULL	

3) Rename column telephone to new name as contact for client_master table.

alter table client_master rename column telephone to Contact;

Result Grid							
		Filter Rows:		Export:		Wrap Cell Content:	
	Client_no	Name	Ciy	Pincode	State	Bal_due	Contact
►	C001	Ivan	Bombay	400054	Maharashtra	1000.00	NULL
	C003	Pramada	Bombay	400057	Maharashtra	5000.00	NULL
	C004	Basu	Bombay	400056	Maharashtra	0.00	NULL
	C005	Ravi	Delhi	100001	Gujarat	2000.00	NULL
	C006	Rukmani	Bombay	400050	Maharashtra	0.00	NULL
	C001	Ivan	Bombay	400054	Maharashtra	1000.00	NULL
	C003	Pramada	Bombay	400057	Maharashtra	5000.00	NULL
	C004	Basu	Bombay	400056	Maharashtra	0.00	NULL
	C005	Ravi	Delhi	100001	Gujarat	2000.00	NULL
	C006	Rukmani	Bombay	400050	Maharashtra	0.00	NULL
	C001	Ivan	Bombay	400054	Maharashtra	1000.00	NULL
	C003	Pramada	Bombay	400057	Maharashtra	5000.00	NULL
	C004	Basu	Bombay	400056	Maharashtra	0.00	NULL
	C005	Ravi	Delhi	100001	Gujarat	2000.00	NULL
	C006	Rukmani	Bombav	400050	Maharashtra	0.00	NULL

4) Delete column contact from client_master table.

alter table client_master drop column Contact;

Result Grid

  Filter Rows:

Export:  Wrap Cell Content


	Client_no	Name	City	Pincode	State	Bal_due
▶	C001	Ivan	Bombay	400054	Maharashtra	1000.00
	C003	Pramada	Bombay	400057	Maharashtra	5000.00
	C004	Basu	Bombay	400056	Maharashtra	0.00
	C005	Ravi	Delhi	100001	Gujarat	2000.00
	C006	Rukmani	Bombay	400050	Maharashtra	0.00
	C001	Ivan	Bombay	400054	Maharashtra	1000.00
	C003	Pramada	Bombay	400057	Maharashtra	5000.00
	C004	Basu	Bombay	400056	Maharashtra	0.00
	C005	Ravi	Delhi	100001	Gujarat	2000.00
	C006	Rukmani	Bombay	400050	Maharashtra	0.00
	C001	Ivan	Bombay	400054	Maharashtra	1000.00
	C003	Pramada	Bombay	400057	Maharashtra	5000.00


F) Deleting the table structure along with data:

Create table employee with 4 columns and 5 rows.

create table employee(name varchar(20), city varchar(20), phone_no numeric(10), salary numeric(10));

Result Grid


Filter Rows:

Export:


Wrap

	Field	Type	Null	Key	Default	Extra
▶	name	varchar(20)	YES		NULL	
	city	varchar(20)	YES		NULL	
	phone_no	decimal(10,0)	YES		NULL	
	salary	decimal(10,0)	YES		NULL	

1) Destroy the table employee along with its data.
drop table employee;

Result Grid	Filter Rows:
Tables_in_cs_22162171038	
client_master	
product_master	
sales_order	
salesman_master	

G) Renaming the table:

1) Change the name of the salesman_master table to sman_mast.
rename table salesman_master to sman_mast;

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Result Grid		Filter Rows:	
	Tables_in_cs_22162171038		
▶	client_master		
	product_master		
	sales_order		
	sman_mast		