

Institute of computer technology

B.Tech-CSE(BDA)

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Sem:-3

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Batch:-31

Sub:-DBMS

Date:-12/8/24

Practical 3

Q:- Queries on computation on table data:

- 1) Find the name of all clients having 'a' as the second letter in their names
- 2) Find out the clients whose name is four character long and second letter is 'a'.
- 3) Find out the name of city whose second last character is 'a'.
- 4) Print the list of clients whose bal_due is greater than or equal to 10000.
- 5) Print the information from sales_order table for orders placed in the month of January.
- 6) Display the order information for client_no 'C003' and 'C001'.
- 7) Find products whose selling price is greater than 2000 and less than or equal to 5000.
- 8) Find products whose selling price is more than 1500. Calculate a new selling price as, original selling price * .15. Rename the new column in the above query as new_price.
- 9) List the names, city and state of clients who are not in the state of 'Maharashtra'.
- 10) Count the total number of orders.
- 11) Calculate the average price of all products.

- 12) Determine the maximum and minimum product prices. Rename the output as max_price and min_price respectively.
- 13) Count the number of products having price greater than or equal to 1500.
- 14) Find all the products whose qty_on_hand is less than reorder level.
- 15) Create table cmaster from client_master table.
- 16) Insert data in cmaster from client_master where city='bombay'
- 17) Create table sales from sales_order with order_no and client_no columns.
- 18) Insert data in sales from sales_order table.

A=> Query:-

```
use BDA_23162121020;
```

```
create table Sales_order(Order_no varchar(6) ,Order_Date date ,Client_no varchar(6) ,S_no
varchar(6) ,Dely_type char(1) ,Billed_yn char(1) ,Dely_Date date ,Order_Status varchar(10));
```

```
insert into Sales_order values('O1901' ,str_to_date('02/06/2015', '%d/%m/%Y') , 'C001' , 'S001'
,'F' , 'N' , str_to_date('20/06/2015', '%d/%m/%Y') , 'InProgress');
```

```
insert into Sales_order values('O1902' ,str_to_date('25/01/2015', '%d/%m/%Y') , 'C002' , 'S002'
,'P' , 'N' , str_to_date('27/06/2015', '%d/%m/%Y') , 'Cancelled');
```

```
insert into Sales_order values('O4665' ,str_to_date('18/02/2015', '%d/%m/%Y') , 'C003' , 'S003'
,'F' , 'Y' , str_to_date('20/02/2015', '%d/%m/%Y') , 'Fullfilled');
```

```
insert into Sales_order values('O1903' ,str_to_date('03/04/2015', '%d/%m/%Y') , 'C001' , 'S001'
,'F' , 'Y' , str_to_date('07/04/2015', '%d/%m/%Y') , 'Fullfilled');
```

```
insert into Sales_order values('O4666' ,str_to_date('20/05/2015', '%d/%m/%Y') , 'C004' , 'S002'
,'P' , 'N' , str_to_date('22/05/2015', '%d/%m/%Y') , 'Cancelled');
```

```
insert into Sales_order values('O1908' ,str_to_date('24/05/2015', '%d/%m/%Y') , 'C005' , 'S003'
,'F' , 'N' , str_to_date('26/05/2015', '%d/%m/%Y') , 'InProgress');
```

- 1) select * from client_master where Name like '_a%';
- 2) select * from client_master where Name like '_a__';
- 3) select * from client_master where City like '%a_';

- 4) select * from client_master where Bal_due >= 10000;
- 5) select * from sales_order where month(order_date) = 1;
- 6) select * from client_master where Client_no = 'C003' or Client_no = 'C001';
- 7) select * from product_master where sell_price between 2000 and 5000;
- 8) select sell_price = 1500 and sell_price * 0.15 new_price from product_master;
- 9) select * from client_master where state not in('Maharashtra');
- 10) select count(order_no) from sales_order;
- 11) select avg(sell_price) "Average of Sell Price is:" from product_master;
- 12) select max(sell_price) "The Maximum Price is:" , min(sell_price) "The Minimum Price is:" from product_master;
- 13) select count(product_no) "The Total No. Of Product is:" from product_master where sell_price >=1050;
- 14) select count(product_no) "The Total No. Of Product is:" from product_master where Reorder_lvl > Qty_on_Hand;
- 15) create table cmaster like client_master;
- 16) insert into cmaster select * from client_master where city = 'Bombay';
- 17) create table sales as select order_no , client_no from sales_order;
- 18) insert into sales (order_no, client_no) select Order_no, Client_no from sales_order;

Screenshot:-

prac_1_A prac_1_B* prac_1_C prac_2 **prac_3***

Limit to 1000 rows

```

6 * insert into sales_order values('01902', '01/25/2015', 'C002', 'S002', 'P', 'N', '06/27/2015', 'Cancelled');
7 * insert into sales_order values('04665', '02/18/2015', 'C003', 'S003', 'F', 'Y', '02/20/2015', 'Fulfilled');
8 * insert into sales_order values('01903', '04/03/2015', 'C001', 'S001', 'F', 'Y', '04/07/2015', 'Fullfilled');
9 * insert into sales_order values('04666', '05/20/2015', 'C004', 'S002', 'P', 'N', '05/22/2015', 'Cancelled');
10 * insert into sales_order values('01908', '05/24/2015', 'C005', 'S003', 'F', 'N', '05/26/2015', 'InProgress');
11 * select * from sales_order;
12
13 * select * from client_master where Name like '_a%';

```

Result Grid Filter Rows: Export: Wrap Cell Content:

Client_no	Name	City	Pincode	State	Bal_due
C002	Vandana	Bombay	780001	Tamil Nadu	0
C004	Basu	Bombay	400056	Maharashtra	0
C005	Ravi	Delhi	100001	Gujarat	0

client_master 1 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	10:05:10	use practical_1	Error Code: 1049. Unknown database 'practical_1'	0.000 sec
2	10:05:25	use bda_23162121021	0 row(s) affected	0.000 sec
3	10:05:25	select * from client_master where Name like '_a%': LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

2

prac_1_A prac_1_B* prac_1_C prac_4 **prac_5***

Limit to 1000 rows

```

7 * insert into sales_order values('04665', '02/18/2015', 'C003', 'S003', 'F', 'Y', '02/20/2015', 'Fulfilled');
8 * insert into sales_order values('01903', '04/03/2015', 'C001', 'S001', 'F', 'Y', '04/07/2015', 'Fullfilled');
9 * insert into sales_order values('04666', '05/20/2015', 'C004', 'S002', 'P', 'N', '05/22/2015', 'Cancelled');
10 * insert into sales_order values('01908', '05/24/2015', 'C005', 'S003', 'F', 'N', '05/26/2015', 'InProgress');
11 * select * from sales_order;
12
13 * select * from client_master where Name like '_a%';
14 * select * from client_master where Name like '_a_';

```

Result Grid Filter Rows: Export: Wrap Cell Content:

Client_no	Name	City	Pincode	State	Bal_due
C004	Basu	Bombay	400056	Maharashtra	0
C005	Ravi	Delhi	100001	Gujarat	0

client_master 9 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	10:12:10	select * from client_master where Name like '_a_': LIMIT 0, 1000	2 row(s) returned	0.016 sec / 0.000 sec

3

prac_1_A prac_1_B* prac_1_C prac_2 prac_3*

```

8 * insert into sales_order values('01903', '04/03/2015', 'C001', 'S001', 'F', 'Y', '04/07/2015', 'Fullfilled');
9 * insert into sales_order values('04666', '05/20/2015', 'C004', 'S002', 'P', 'N', '05/22/2015', 'Cancelled');
10 * insert into sales_order values('01908', '05/24/2015', 'C005', 'S003', 'F', 'N', '05/26/2015', 'InProgress');
11 * select * from sales_order;
12
13 * select * from client_master where Name like '_a%';
14 * select * from client_master where Name like '_a_';
15 * select * from client_master where City like '%a_';

```

Result Grid

Client_no	Name	City	Pincode	State	Bal_due
C001	Ivan	Bombay	400054	Maharashtra	1000
C002	Vandana	Bombay	780001	Tamil Nadu	0
C003	Pramada	Bombay	400057	Maharashtra	5000
C004	Basu	Bombay	400056	Maharashtra	0
C006	Rukmani	Bombay	400050	Maharashtra	2000

client_master 10

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	10:12:10	select * from client_master where Name like '_a_' LIMIT 0, 1000	2 row(s) returned	0.016 sec / 0.000 sec
2	10:17:13	select * from client_master where City like '%a_' LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

4

prac_1_A prac_1_B* prac_1_C prac_2 prac_3*

```

10 * insert into sales_order values('01908', '05/24/2015', 'C005', 'S003', 'F', 'N', '05/26/2015', 'InProgress');
11 * select * from sales_order;
12
13 * select * from client_master where Name like '_a%';
14 * select * from client_master where Name like '_a_';
15 * select * from client_master where City like '%a_';
16 * select * from client_master where Bal_due not between 0 and 1000;
17

```

Result Grid

Client_no	Name	City	Pincode	State	Bal_due
C003	Pramada	Bombay	400057	Maharashtra	5000
C006	Rukmani	Bombay	400050	Maharashtra	2000

client_master 13

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	10:20:04	select * from client_master where Bal_due not between 0 and 1000 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

5

	Order_no	Order_Date	Client_no	S_no	Dely_type	Billed_yn	Dely_Date	Order_Status
	O1902	2015-01-25	C002	S002	P	N	2015-06-27	Cancelled

6

prac_1_A prac_1_B* prac_1_C prac_2 prac_3*

```

13
14 select * from client_master where Name like '_a%';
15 select * from client_master where Name like '_a_';
16 select * from client_master where City like '%a_';
17 select * from client_master where Bal_due not between 0 and 1000;
18 select * from sales_order where Order_date like '%-01-%';
19 select * from client_master where Client_no='C003' or Client_no='C001';
20 select * from product_master where sell_price between 2000 and 5000;

```

Result Grid | Filter Rows: | Exports: | Wrap Cell Contents: |

Client_no	Name	City	Pincode	State	Bal_due
C001	Ivan	Bombay	400054	Maharashtra	1000
C003	Pramada	Bombay	400057	Maharashtra	5000

client_master 27 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	10:46:29	select * from client_master where Client_no='C003' or Client_no='C001' LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

7

prac_1_A prac_1_B* prac_1_C prac_2 prac_3*

```

13
14 select * from client_master where Name like '_a%';
15 select * from client_master where Name like '_a_';
16 select * from client_master where City like '%a_';
17 select * from client_master where Bal_due not between 0 and 1000;
18 select * from sales_order where Order_date like '%-01-%';
19 select * from client_master where Client_no='C003' or Client_no='C001';
20 select * from product_master where sell_price between 2000 and 5000;

```

Result Grid | Filter Rows: | Exports: | Wrap Cell Contents: |

Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_M	sell_price	Cost_price
P005	Keyboards	2	Piece	10	3	3150.00	500

product_master 28 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	10:46:50	select * from product_master where sell_price between 2000 and 5000 LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

8

prac_1_A prac_1_B prac_1_C prac_2 **prac_3**

```

15 * select * from client_master where Name like '_a_';
16 * select * from client_master where City like '%a_';
17 * select * from client_master where Bal_due not between 0 and 1000;
18 * select * from sales_order where Order_date like '%-01-%';
19 * select * from client_master where Client_no='C003' or Client_no='C001';
20 * select * from product_master where sell_price between 2000 and 5000;
21 * select sell_price > 1500 and sell_price*0.15 new_price from product_master;
22 * select * from product_master;

```

Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_lvl	sell_price	Cost_price
P002	Monitor	6	Piece	10	3	12000.00	11280
P003	Mouse	5	Piece	20	5	1050.00	1000
P005	Keyboards	2	Piece	10	3	3150.00	500
P006	Cd Drive	2.5	Piece	10	3	5250.00	3050
P007	1.44 Drive	4	Piece	10	3	8400.00	8000
P008	This	4	Piece	0	3	8400.00	8000

Result 9 product_master 10 x

Output

#	Time	Action	Message	Duration / Fetch
1	14:49:12	select sell_price > 1500 and sell_price*0.15 new_price from product_master LIMIT 0, 1000	Error Code: 1054. Unknown column 'sellprice' in field list	0.000 sec
2	14:50:27	select sellprice*0.15 new_price from product_master LIMIT 0, 1000	Error Code: 1054. Unknown column 'sellprice' in field list	0.000 sec
3	14:53:21	select sell_price > 1500 and sell_price*0.15 new_price from product_master LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
4	14:53:21	select * from product_master LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

9

prac_1_A prac_1_B prac_1_C prac_2 **prac_3**

```

17 * select * from client_master where Bal_due not between 0 and 1000;
18 * select * from sales_order where Order_date like '%-01-%';
19 * select * from client_master where Client_no='C003' or Client_no='C001';
20 * select * from product_master where sell_price between 2000 and 5000;
21 * select sell_price > 1500 and sell_price*0.15 new_price from product_master;
22 * select * from product_master;
23 * select * from client_master where state not in ('maharashtra');
24

```

Client_no	Name	City	Pincode	State	Bal_due
C002	Vandana	Bombay	780001	Tamil Nadu	0
C005	Ravi	Delhi	100001	Gujarat	0

client_master 12 x

Output

#	Time	Action	Message	Duration / Fetch
1	14:58:12	select * from client_master where state not in ('maharashtra') LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

10

The screenshot shows a database IDE with a query editor and a results pane. The query editor contains the following SQL statements:

```

18 * select * from sales_order where Order_date like '%-01-%';
19 * select * from client_master where Client_no='C003' or Client_no='C001';
20 * select * from product_master where sell_price between 2000 and 5000;
21 * select sell_price > 1500 and sell_price*0.15 new_price from product_master;
22 * select * from product_master;
23 * select * from client_master where state not in ('maharashtra');
24 * select count(order_no) from sales_order;
25

```

The results pane shows the output of the query `count(order_no)` from `sales_order`, which is 6.

Below the results pane, the "Output" section shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	07:53:43	select count order_no from sales_order LIMIT 0, 1000	Error Code: 1054. Unknown column 'count' in field list	0.000 sec
2	07:54:00	select order_no count from sales_order LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
3	08:02:32	select count(order_no) from sales_order LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

11

The screenshot shows a database IDE with a query editor and a results pane. The query editor contains the following SQL statements:

```

20 * select * from product_master where sell_price between 2000 and 5000;
21 * select sell_price > 1500 and sell_price*0.15 new_price from product_master;
22 * select * from product_master;
23 * select * from client_master where state not in ('maharashtra');
24 * select count(order_no) from sales_order;
25 * select avg(sell_price) "Average of sell price is: " from product_master;
26
27

```

The results pane shows the output of the query `avg(sell_price)` from `product_master`, which is 6375.000000.

Below the results pane, the "Output" section shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	08:08:38	select avg(sell_price) "Average of sell price is: " from product_master LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec

12

The screenshot shows a database IDE with a SQL editor and a results pane. The SQL editor contains the following queries:

```

20 * select * from product_master where sell_price between 2000 and 5000;
21 * select sell_price > 1500 and sell_price*0.15 new_price from product_master;
22 * select * from product_master;
23 * select * from client_master where state not in ('maharashtra');
24 * select count(order_no) from sales_order;
25 * select avg(sell_price) "Average of sell price is: " from product_master;
26 * select max(sell_price) "max_price", min(sell_price) "min_price " from product_master;
27 * select count(sell_price>1500) "the number of price greater or equal to 1500 is: " from product_master where sell_price>1500;

```

The results pane shows the output of the 26th query:

max_price	min_price
12000.00	1050.00

The output pane shows the execution details for the 26th query:

#	Time	Action	Message	Duration / Fetch
1	08:38:44	select max(sell_price) "max_price", min(sell_price) "min_price " from product_master LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

13

The screenshot shows a database IDE with a SQL editor and a results pane. The SQL editor contains the following queries:

```

21 * select sell_price > 1500 and sell_price*0.15 new_price from product_master;
22 * select * from product_master;
23 * select * from client_master where state not in ('maharashtra');
24 * select count(order_no) from sales_order;
25 * select avg(sell_price) "Average of sell price is: " from product_master;
26 * select max(sell_price) "max_price", min(sell_price) "min_price " from product_master;
27 * select count(sell_price>1500) "the number of price greater or equal to 1500 is: " from product_master where sell_price>1500;
28 * select * from product_master where Qty_on_hand < Reorder_lvl;

```

The results pane shows the output of the 28th query:

Product_no	Description	P_percent	U_measure	Qty_on_hand	Reorder_lvl	sell_price	Cost_price
P008	This	4	Piece	0	3	8400.00	8000

The output pane shows the execution details for the 28th query:

#	Time	Action	Message	Duration / Fetch
1	08:38:44	select max(sell_price) "max_price", min(sell_price) "min_price " from product_master LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
2	08:42:40	select * from product_master where Qty_on_hand < Reorder_lvl LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

14

	The Total No. Of Product is:
▶	0

15

	Field	Type	Null	Key	Default	Extra
▶	Client_no	varchar(6)	YES		NULL	
	Name	varchar(20)	YES		NULL	
	City	varchar(15)	YES		NULL	
	Pincode	decimal(8,0)	YES		NULL	
	State	varchar(15)	YES		NULL	
	Bal_due	decimal(10,2)	YES		NULL	

16

	Client_no	Name	City	Pincode	State	Bal_due
▶	C001	Ivan	Bombay	400054	Maharastra	1000.00
	C003	Pramada	Bombay	400057	Maharastra	5000.00
	C004	Basu	Bombay	400056	Maharastra	0.00
	C006	Rukmani	Bombay	400050	Maharastra	0.00

17

	Field	Type	Null	Key	Default	Extra
▶	order_no	varchar(6)	YES		NULL	
	client_no	varchar(6)	YES		NULL	

	order_no	client_no
▶	O1901	C001
	O1902	C002
	O4665	C003
	O1903	C001
	O4666	C004
	O1908	C005

Q:- Queries on Date manipulation:

- 1) Display the order number and day on which clients placed their order.
- 2) Display the month (in alphabets) and date when the order must be delivered.
- 3) Find the number of days elapsed between delivery date and order date from sales_order table.
- 4) Find the date, 15 days after today's date.
- 5) Display current date and time.
- 6) Display system time..

A=> Query:-

- 1) select order_no, dayname(order_date) as order_day from sales_order;
- 2) select date_format(dely_date, '%M %d') as dely_month_date from sales_order;
- 3) select datediff(dely_date, order_date) as days_elapsed from sales_order;
- 4) select date_add(current_date(), interval 15 day) as date_after_15_days;
- 5) select now() as current_date_time;
- 6) select curtime() as system_time;

Screenshot:-

	order_no	order_day
▶	O1901	Tuesday
	O1902	Sunday
	O4665	Wednesday
	O1903	Friday
	O4666	Wednesday
	O1908	Sunday

2

	dely_month_date
▶	June 20
	June 27
	February 20
	April 07
	May 22
	May 26

3

	days_elapsed
▶	18
	153
	2
	4
	2
	2

4

	date_after_15_days
▶	2024-08-20

5

	current_date_time
▶	2024-08-05 22:39:44

6

	system_time
▶	22:39:44

Action logs:-

56	22:39:44	select order_no, dayname(order_date) as order_day from sales_order LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
57	22:39:44	select date_format(dely_date, '%M %d') as dely_month_date from sales_order LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
58	22:39:44	select datediff(dely_date, order_date) as days_elapsed from sales_order LIMIT 0, 1000	6 row(s) returned	0.016 sec / 0.000 sec
59	22:39:44	select date_add(current_date(), interval 15 day) as date_after_15_days LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
60	22:39:44	select now() as current_date_time LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
61	22:39:44	select curtime() as system_time LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec