Database Management System Lab

(BTCCSPCC403)

An Assignment Work Submitted for the 4th Semester
of Bachelor of Technology

in

Computer Science and Engineering (Data Science)

by

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Contents

Chapter 1

Assignment 1

Client No	Name	City	Pin Code	State
C00001	Ivan Bayros	Mumbai	400054	Maharashtra
C00002	Mamta Mazumder	Madras	780001	Tamil Nadu
C00003	Chhaya Bankar	Mumbai	400057	Maharashtra
C00004	Ashwini Joshi	Bangalore	560001	Karnataka
C00005	Hanel Colaco	Mumbai	400060	Maharashtra
C00006	Deepak Sharma	Mangalore	560050	Karnataka

1.1 Find out the names of all clients

Source Code :

```
SELECT name FROM client_master;
```

Program Output :

#	name
1	Ivan Bayros
2	Mamta Mazumder
3	Chhaya Bankar
4	Ashwini Joshi
5	Hanel Colaco
6	Deepak Sharma

1.2 List all clients who are located in Mumbai

Source Code :

```
SELECT name FROM client_master WHERE city = "Mumbai";
```

Program Output :

#	name
1	Ivan Bayros
2	Chhaya Bankar
3	Hanel Colaco

1.3 Change the city of client no 'C00005'to 'Bangalore'

Source Code :

```
UPDATE client_master SET city = "Bangalore" WHERE client_no =
↪  "C00005";
SELECT * FROM client_master;
```

Program Output :

#	client_no	name	city	pin_code	state
1	C00001	Ivan Bayros	Mumbai	400054	Maharashtra
2	C00002	Mamta Mazumder	Madras	780001	Tamil Nadu
3	C00003	Chhaya Bankar	Mumbai	400057	Maharashtra
4	C00004	Ashwini Joshi	Bangalore	560001	Karnataka
5	C00005	Hanel Colaco	Bangalore	400060	Maharashtra
6	C00006	Deepak Sharma	Mangalore	560050	Karnataka

1.4 Delete the rows where state holds the value 'Tamil Nadu'

Source Code :

```
DELETE FROM client_master WHERE state = "Tamil Nadu";
SELECT * FROM client_master;
```

Program Output :

#	client_no	name	city	pin_code	state
1	C00001	Ivan Bayros	Mumbai	400054	Maharashtra
2	C00003	Chhaya Bankar	Mumbai	400057	Maharashtra
3	C00004	Ashwini Joshi	Bangalore	560001	Karnataka
4	C00005	Hanel Colaco	Bangalore	400060	Maharashtra
5	C00006	Deepak Sharma	Mangalore	560050	Karnataka

1.5 Add a column balance of data type number and size = 10

Source Code :

```
ALTER TABLE client_master ADD balance INTEGER(10);
SELECT * FROM client_master;
```

Program Output :

#	client_no	name	city	pin_code	state	balance
1	C00001	Ivan Bayros	Mumbai	400054	Maharashtra	NULL
2	C00003	Chhaya Bankar	Mumbai	400057	Maharashtra	NULL
3	C00004	Ashwini Joshi	Bangalore	560001	Karnataka	NULL
4	C00005	Hanel Colaco	Bangalore	400060	Maharashtra	NULL
5	C00006	Deepak Sharma	Mangalore	560050	Karnataka	NULL

1.6 Display the record of all clients whose name starting with 'A'

Source Code :

```
SELECT * FROM client_data WHERE name LIKE 'A%';
```

Program Output :

#	client_no	name	city	pin_code	state	balance
1	C00004	Ashwini Joshi	Bangalore	560001	Karnataka	NULL

1.7 Display the record of all clients whose name third character is 'a'

Source Code :

```
SELECT * FROM client_data WHERE name LIKE '__A%';
```

Program Output :

#	client_no	name	city	pin_code	state	balance
1	C00001	Ivan Bayros	Mumbai	400054	Mahara…	NULL

1.8 Display the record of all clients whose name end with 'a'

Source Code :

```
SELECT * FROM client_data WHERE name LIKE '%a';
```

Program Output :

#	client_no	name	city	pin_code	state	balance
1	C00006	Deepak Sh…	Mangal…	560050	Karnataka	NULL

Chapter 2

Assignment 2

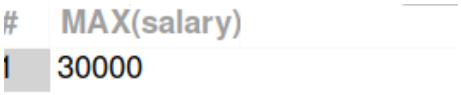
emp id	emp name	dept	salary
E001	RAM SINGH	HR	20000
E002	AMRIT KUMAR	MRKT	15000
E003	RAVI KUMAR	IT	30000
E004	NITIN PATHAK	HR	20000
E005	PIYUSH SINGH	HR	15000
E006	ANJAN KONAR	MRKT	10000

2.1 Write a SQL query to display the maximum salary

Source Code :

```
SELECT MAX(salary) FROM myEmployee;
```

Program Output :

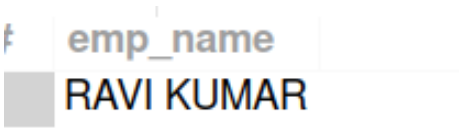


2.2 Write a SQL query to display the employee name who is taking maximum salary

Source Code :

```
SELECT emp_name FROM myEmployee WHERE salary = (SELECT
↪  MAX(salary) FROM myEmployee);
```

Program Output :



2.3 Write a SQL query to display the 2nd highest salary

Source Code :

```
SELECT MAX(salary) FROM myEmployee WHERE salary < (SELECT
↪ MAX(salary) FROM myEmployee);
```

Program Output :

#	MAX(salary)
1	20000

2.4 Write a SQL query to display the employee name, id who is taking 2nd highest salary

Source Code :

```
SELECT emp_name, emp_id FROM myEmployee WHERE salary = (SELECT
↪ MAX(salary) FROM myEmployee WHERE salary < (SELECT
↪ MAX(salary) FROM myEmployee));
```

Program Output :

#	emp_name	emp_id
1	RAM SINGH	E001
2	NITIN PATHAK	E004

2.5 Write a SQL query to display all the department name along with number of employee working in that

Source Code :

```
SELECT dept, COUNT(dept) FROM myEmployee GROUP BY dept;
```

Program Output :

#	dept	COUNT(dept)
1	HR	2
2	MRKT	3
3	IT	1

2.6 Write a SQL query to display all the department name where number of employees are less than 2

Source Code :

```
SELECT dept FROM myEmployee GROUP BY dept HAVING COUNT(dept) <
↪ 2;
```

Program Output :

#	dept
1	IT

2.7 Write a SQL query to display the employee name who is working where number of employees are less than 2

Source Code :

```
SELECT emp_name FROM  myEmployee WHERE dept IN (SELECT dept FROM
↪ myEmployee GROUP BY dept HAVING COUNT(dept) < 2);
```

Program Output :

#	emp_name
1	RAVI KUMAR