

DBMS LAB ASSIGNMENT 4 – 19BCS051- KASHA SINGH

1. Write 5 Nested Queries for your respective database- the queries should not be very similar like just changing the where clause or just building all the queries on only one or two tables etc. The queries should make sense, it should cover most part of your database tables.

QUERY:

```
SELECT first_name, last_name, phone FROM T3_CustomerDetails
WHERE customer_id IN (SELECT customer_id FROM T3_BookingDetails
                      WHERE payment_amount > 50000);
```

```
SELECT customer_id, first_name, last_name from T3_CustomerDetails
WHERE customer_id IN (SELECT customer_id FROM T3_BookingDetails
                      WHERE booking_id IN (SELECT booking_id FROM T3_PackageDetails
                                           WHERE package_name = 'KULLU MANALI'));
```

```
SELECT customer_id FROM T3_CustomerDetails
WHERE customer_id NOT IN (SELECT customer_id FROM T3_BookingDetails WHERE booking_id
IN (SELECT booking_id FROM T3_DestinationDetails WHERE hotel_name = 'Raj Palace'));
```

```
SELECT package_name, cost FROM T3_PackageDetails WHERE booking_id IN
(SELECT booking_id FROM T3_Bus WHERE bus_type = '2 Seater');
```

```
SELECT package_name FROM T3_PackageDetails WHERE EXISTS (SELECT * FROM
T3_Bus WHERE T3_PackageDetails.booking_id = T3_Bus.booking_id);
```

OUTPUT:

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the 'Databases' folder is expanded, showing the 'T3_Travel' database. The 'Tables' folder is also expanded, listing tables such as 'dbo.T3_BookingDetails', 'dbo.T3_Bus', 'dbo.T3_Car', 'dbo.T3_CustomerDetails', 'dbo.T3_DestinationDetails', 'dbo.T3_EmployeeDetails', 'dbo.T3_Flight', 'dbo.T3_PackageDetails', and 'dbo.T3_Train'. The main window shows the results of five nested queries. The first query returns customer details for those with booking payment amounts over 50,000. The second query returns customer details for those whose booking is for a 'KULLU MANALI' package. The third query returns customer IDs not in bookings for 'Raj Palace'. The fourth query returns package names and costs for 2-seater buses. The fifth query returns package names that have corresponding bus bookings.

first_name	last_name	phone
Jai	Krishna	919999999912
Prabha	Ingaraju	919999999913
Somesh	Thakur	919999999914
Deepak	Chowdary	919999999915
Karthik	Sajan	9199999999189

customer_id	first_name	last_name
0000000011	Jai	Krishna
0000000012	Prabha	Ingaraju
0000000013	Somesh	Thakur
0000000014	Deepak	Chowdary
0000000015	Karthik	Sajan

customer_id
0000000001
0000000002
0000000003
0000000004
0000000005
0000000006

package_name	cost
Manasarovar	50000.00
Manasarovar	50000.00
Manasarovar	50000.00
Manasarovar	50000.00
Manasarovar	50000.00
Manasarovar	50000.00

package_name
Kullu Manali
Kullu Manali
Kullu Manali
Kullu Manali

2. Illustrate how we can use Concat and As operators in SQL (minimum 3 queries)

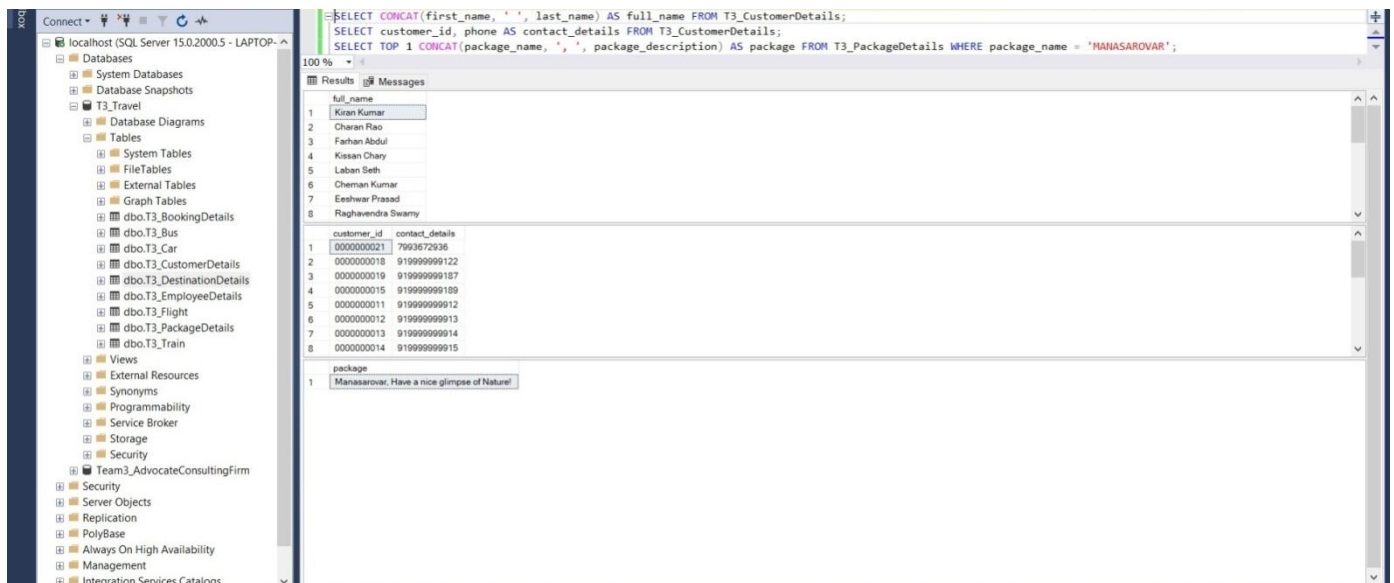
QUERY:

```
SELECT CONCAT(first_name, ' ', last_name) AS full_name FROM T3_CustomerDetails;
```

```
SELECT customer_id, phone AS contact_details FROM T3_CustomerDetails;
```

```
SELECT TOP 1 CONCAT(package_name, ', ', package_description) AS package FROM  
T3_PackageDetails WHERE package_name = 'MANASAROVAR';
```

OUTPUT:



The screenshot displays the SQL Server Enterprise Manager interface with three queries executed in the query window. The results are shown in the Results pane.

Query 1: SELECT CONCAT(first_name, ' ', last_name) AS full_name FROM T3_CustomerDetails;

full_name
Kiran Kumar
Charan Rao
Fahsan Abdul
Kissan Chary
Laban Seth
Chaman Kumar
Eeshwar Prasad
Raghavendra Swamy

Query 2: SELECT customer_id, phone AS contact_details FROM T3_CustomerDetails;

customer_id	contact_details
0000000021	7993672936
0000000018	919999999122
0000000019	919999999187
0000000015	919999999189
0000000011	919999999912
0000000012	919999999913
0000000013	919999999914
0000000014	919999999915

Query 3: SELECT TOP 1 CONCAT(package_name, ', ', package_description) AS package FROM T3_PackageDetails WHERE package_name = 'MANASAROVAR';

package
Manasarovar: Have a nice glimpse of Nature!

3. Illustrate all the Comparison operator (2 queries for each operator)

QUERY:

```
SELECT customer_id, first_name, last_name FROM T3_CustomerDetails WHERE age =  
21;
```

```
SELECT TOP 1 package_name FROM T3_PackageDetails WHERE cost = 25000;
```

```
SELECT customer_id FROM T3_CustomerDetails WHERE gender <> 'M';
```

```
SELECT TOP 1 bus_id, bus_type FROM T3_Bus WHERE bus_id <> 8714;
```

```
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary > 10000;
```

```
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM  
T3_CustomerDetails WHERE age > 40;
```

```
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary < 8000;
```

```
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM  
T3_CustomerDetails WHERE age < 30;
```

```
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary >= 10000;
```

```
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM  
T3_CustomerDetails WHERE age >= 40;
```

```
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary <= 5000;
```

```
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM  
T3_CustomerDetails WHERE age <= 20;
```

OUTPUT:

The screenshot shows the SQL Server Enterprise Manager interface on the left, displaying the database structure for 'Team3_AdvocateConsultingFirm'. The right pane shows a SQL query window with the following query:

```
SELECT customer_id, first_name, last_name FROM T3_CustomerDetails WHERE age = 21;
SELECT TOP 1 package_name FROM T3_PackageDetails WHERE cost = 25000;
SELECT customer_id FROM T3_CustomerDetails WHERE gender <> 'M';
SELECT TOP 1 bus_id, bus_type FROM T3_Bus WHERE bus_id <> 8714;
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary > 10000;
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM T3_CustomerDetails WHERE age > 40;
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary < 8000;
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM T3_CustomerDetails WHERE age < 30;
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary >= 10000;
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM T3_CustomerDetails WHERE age >= 40;
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary <= 5000;
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM T3_CustomerDetails WHERE age <= 20;
```

The results pane shows the following data:

customer_id	first_name	last_name
000000004	Kissan	Chary

package_name
Kulu Manali

customer_id
000000016
000000018
000000019
000000020

bus_id	bus_type
6938	2 Seater

employee_id	name
01001	P. RAJESH
01002	A. RAMESH
02003	B. SURESH
02004	N. NARESH

customer_id	full_name
000000007	EeshwarPrasad
000000008	RaghavendraSwamy
000000009	ShivajChatrapati
000000012	Prabhalingaraju
000000016	SuvarnaRam
000000017	SunderRam

The screenshot shows the SQL Server Enterprise Manager interface on the left, displaying the database structure for 'Team3_AdvocateConsultingFirm'. The right pane shows the same SQL query window as above. The results pane shows the following data:

employee_id	name
01007	O. JAYESH
02008	P. PARAMESH

customer_id	full_name
000000002	CharanRao
000000004	KissanChary
000000005	LakshmiSethi
000000010	ChakramK.
000000011	JaiKrishna
000000014	DeepakCh.
000000015	KarthikSajj...
000000018	Manaswini...

employee_id	name
01001	P. RAJESH
01002	A. RAMESH
02003	B. SURESH
02004	N. NARESH

customer_id	full_name
000000007	EeshwarPrasad
000000008	RaghavendraSwamy
000000009	ShivajChatrapati
000000012	Prabhalingaraju

The screenshot shows the SQL Server Enterprise Manager interface on the left, displaying the database structure for 'Team3_AdvocateConsultingFirm'. The right pane shows the same SQL query window as above. The results pane shows the following data:

000000016	SuvarnaRam
000000017	SunderRam

employee_id	name
01007	O. JAYESH
02008	P. PARAMESH

customer_id	full_name
000000005	LakshmiSethi
000000010	ChakramKumar
000000014	DeepakChow...
000000015	KarthikSajan
000000018	ManaswiniKa...
000000019	ShreyaKuppa
000000020	SrinidhiKuppa

4. Illustrate Logical operators except ANY, ALL and Like (2 queries for each operator)

QUERY:

```
SELECT customer_id, first_name, last_name FROM T3_CustomerDetails WHERE age >= 21 AND gender = 'M';  
SELECT name FROM T3_EmployeeDetails WHERE salary >= 10000 AND designation = 'Driver';
```

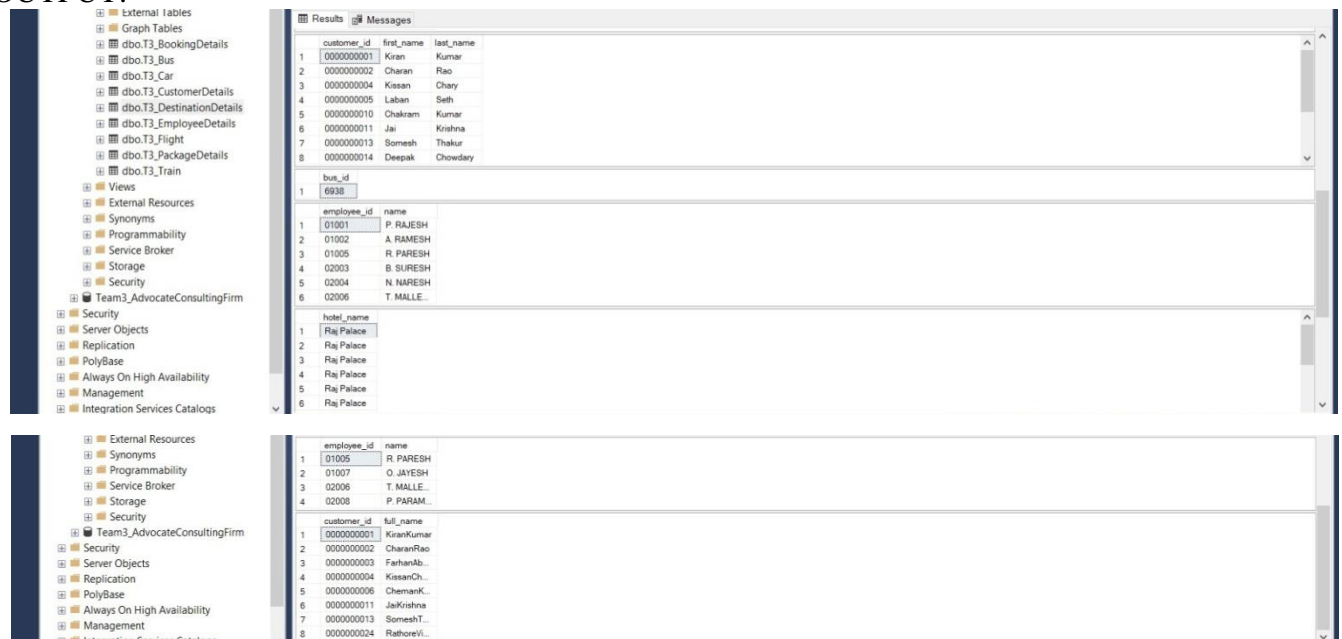
```
SELECT customer_id, first_name, last_name FROM T3_CustomerDetails WHERE age >= 40 OR gender = 'M';  
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary >= 10000 OR designation = 'Luggage Manager';
```

```
SELECT customer_id, first_name, last_name FROM T3_CustomerDetails WHERE NOT age >= 35;  
SELECT bus_id FROM T3_bus WHERE NOT bus_type = 'Sleeper';
```

```
SELECT employee_id, name FROM T3_EmployeeDetails WHERE designation IN ('Driver', 'Cleaner');  
SELECT hotel_name FROM T3_DestinationDetails WHERE city IN ('Kulu Manali', 'Burang');
```

```
SELECT employee_id, name FROM T3_EmployeeDetails WHERE salary BETWEEN 5000 AND 10000;  
SELECT customer_id, CONCAT(first_name, last_name) AS full_name FROM T3_CustomerDetails WHERE age BETWEEN 21 AND 40;
```

OUTPUT:



The screenshot displays the SQL Server Enterprise Manager interface. On the left, the 'Server Objects' tree is expanded, showing the 'Team3_AdvocateConsultingFirm' database. The 'Tables' folder is selected, listing various tables including T3_CustomerDetails, T3_EmployeeDetails, T3_bus, and T3_DestinationDetails. The main pane shows the 'Results' tab with the output of the queries. The first query returns a list of customers with IDs, first names, and last names. The second query returns a list of employees with IDs and names. The third query returns a list of hotels with names. The fourth query returns a list of employees with IDs and names. The fifth query returns a list of customers with IDs and full names.

customer_id	first_name	last_name
0000000001	Kiran	Kumar
0000000002	Charan	Rao
0000000004	Kissan	Chary
0000000005	Laban	Seth
0000000010	Chakram	Kumar
0000000011	Jai	Krishna
0000000013	Somesh	Thakur
0000000014	Deepak	Chowdary

bus_id
6938

employee_id	name
01001	P. RAJESH
01002	A. RAMESH
01005	R. PARESH
02003	B. SURESH
02004	N. NARESH
02006	T. MALLE...

hotel_name
Raj Palace
Raj Palace
Raj Palace
Raj Palace
Raj Palace
Raj Palace

employee_id	name
01005	R. PARESH
01007	O. JAYESH
02006	T. MALLE...
02008	P. PARAM...

customer_id	full_name
0000000001	KiranKumar
0000000002	CharanRao
0000000003	Fahranb...
0000000004	KissanCh...
0000000006	ChemanK...
0000000011	JaiKrishna
0000000013	SomeshT...
0000000024	RathoreV...