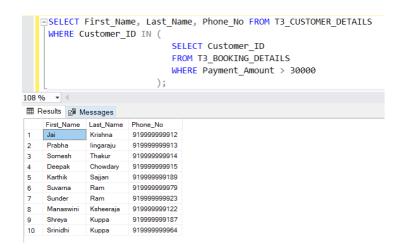# DBMS LAB ASSIGNMENT-4
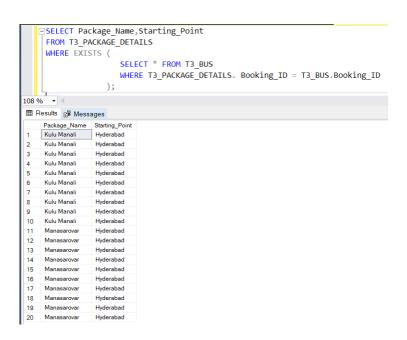
Name:Dhyan.MG

Reg No:19BCS038

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 1

   QUERY 2

   QUERY 3

```sql
SELECT  Customer_ID, First_Name ,Age, Gender FROM T3_CUSTOMER_DETAILS
WHERE Customer_ID IN (
                        SELECT Customer_ID
                        FROM T3_BOOKING_DETAILS
                        WHERE Booking_ID IN (
                                                SELECT Booking_ID
                                                FROM T3_DESTINATION_DETAILS
                                                WHERE Hotel_Name = 'Gurugrantha Choultry'
                                             )
                      );
```
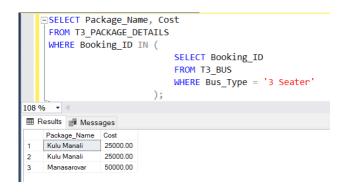
108 %

Results | Messages

	Customer_ID	First_Name	Age	Gender
1	0000000011	Jai	28	M
2	0000000012	Prabha	41	M
3	0000000013	Somesh	33	M
4	0000000014	Deepak	19	M
5	0000000015	Karthik	20	M
6	0000000016	Suvarna	54	F
7	0000000017	Sunder	54	M
8	0000000018	Manaswini	16	F
9	0000000019	Shreya	8	F
10	0000000020	Srinidhi	5	F

QUERY 4

```sql
SELECT Package_Name, Cost
FROM T3_PACKAGE_DETAILS
WHERE Booking_ID IN (
                        SELECT Booking_ID
                        FROM T3_BUS
                        WHERE Bus_Type = '3 Seater'
                     );
```

108 %

Results | Messages

	Package_Name	Cost
1	Kulu Manali	25000.00
2	Kulu Manali	25000.00
3	Manasarovar	50000.00

QUERY 5

```sql
FROM T3_CUSTOMER_DETAILS
WHERE customer_id NOT IN (
                            SELECT Customer_ID
                            FROM T3_BOOKING_DETAILS
                            WHERE Booking_ID IN (
                                                    SELECT booking_id
                                                    FROM T3_PACKAGE_DETAILS
                                                    WHERE Package_Name='KULU MANALI'
                                                 )
                          );
```

108 %

Results | Messages

	Customer_ID	First_Name	Last_Name
1	0000000011	Jai	Krishna
2	0000000012	Prabha	lingaraju
3	0000000013	Somesh	Thakur
4	0000000014	Deepak	Chowdary
5	0000000015	Karthik	Sajjan
6	0000000016	Suvarna	Ram
7	0000000017	Sunder	Ram
8	0000000018	Manaswini	Ksheeraja
9	0000000019	Shreya	Kuppa
10	0000000020	Srinidhi	Kuppa

2. **Illustrate how we can use CONCAT and AS operators in SQL (minimum 3 queries)**

QUERY 1

```sql
SELECT CONCAT(Bus_ID, ' ', Bus_Type) AS Bus_Details, Booking_ID, DateAndTime_Of_Arrival, DateAndTime_Of_Departure
FROM T3_BUS;
```

	Bus_Details	Booking_ID	DateAndTime_Of_Arrival	DateAndTime_Of_Departure
1	8714 Sleeper	0100001	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
2	8714 Sleeper	0100002	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
3	8714 Sleeper	0100003	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
4	8714 Sleeper	0100004	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
5	8714 Sleeper	0100005	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
6	8714 Sleeper	0100006	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
7	8714 Sleeper	0100007	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
8	8714 Sleeper	0100008	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
9	8714 Sleeper	0100009	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
10	8714 Sleeper	0100010	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
11	6938 Sleeper	0200011	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
12	6938 Sleeper	0200012	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
13	6938 Sleeper	0200013	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
14	6938 Sleeper	0200014	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
15	6938 Sleeper	0200015	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
16	6938 Sleeper	0200016	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
17	6938 Sleeper	0200017	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
18	6938 Sleeper	0200018	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
19	6938 Sleeper	0200019	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
20	6938 Sleeper	0200020	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000

QUERY 2

```sql
SELECT CONCAT(Package_Name, ',', Package_Description ) AS Package
FROM T3_PACKAGE_DETAILS
WHERE Booking_ID = 0100009 OR Booking_ID = 0200013;
```

	Package
1	Kulu Manali,Chill Out!
2	Manasarovar,Have a nice glimpse of Nature!

QUERY 3

```sql
SELECT CONCAT(First_Name, ' ', Last_Name ) AS Full_Name, Customer_ID, Phone_No
FROM T3_CUSTOMER_DETAILS;
```

	Full_Name	Customer_ID	Phone_No
1	Karusala Deepak	0000000001	7702385485
2	Charan Rao	0000000002	919999999998
3	Farhan Abdul	0000000003	919999999997
4	Kissan Chary	0000000004	919999999996
5	Laban Seth	0000000005	919999999995
6	Cheman Kumar	0000000006	919999999994
7	Eeshwar Prasad	0000000007	919999999993
8	Raghavendra Swamy	0000000008	919999999992
9	Shivaji Chatrapati	0000000009	919999999991
10	Chakram Kumar	0000000010	919999999990
11	Jai Krishna	0000000011	919999999912
12	Prabha lingaraju	0000000012	919999999913
13	Somesh Thakur	0000000013	919999999914
14	Deepak Chowdary	0000000014	919999999915
15	Karthik Sajjan	0000000015	919999999189
16	Suvarna Ram	0000000016	919999999979
17	Sunder Ram	0000000017	919999999923
18	Manaswini Ksheeraja	0000000018	919999999122
19	Shreya Kuppa	0000000019	919999999187
20	Srinidhi Kuppa	0000000020	919999999964

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

Operator	Description
=	Equal to.
>	Greater than.
<	Less than.
>=	Greater than equal to.
<=	Less than equal to.
<>	Not equal to.

QUERY 1 FOR "="

```
SELECT * FROM T3_EMPLOYEE_DETAILS
WHERE Designation = 'Cleaner';
```

108 %

▦ Results ▥ Messages

	Employee_ID	Name	Designation	Phone_Number	Salary
1	01005	R. PARESH	Cleaner	911234567894	8000.00
2	02006	T. MALLESH	Cleaner	911234567895	8000.00

QUERY 2 FOR "="

```
SELECT * FROM T3_CUSTOMER_DETAILS
WHERE Gender = 'F';
```

108 %

▦ Results ▥ Messages

	Customer_ID	First_Name	Last_Name	Age	Gender	Phone_No	Address	Middle_Name
1	0000000016	Suvarna	Ram	54	F	919999999979	NULL	Middle
2	0000000018	Manaswini	Ksheeraja	16	F	919999999122	NULL	Middle
3	0000000019	Shreya	Kuppa	8	F	919999999187	NULL	Middle
4	0000000020	Srinidhi	Kuppa	5	F	919999999964	NULL	Middle

QUERY 1 FOR ">"

SQLQuery13.sql - I...3H0QF42\karus (66))*   ⊕ ✕   SQLQuery2.sql - Io...H0QF42\karus (52))*

```
SELECT * FROM T3_CUSTOMER_DETAILS
WHERE Customer_ID > '0000000005'
```

108 %

▦ Results ▥ Messages

	Customer_ID	First_Name	Last_Name	Age	Gender	Phone_No	Address	Middle_Name
1	0000000006	Cheman	Kumar	35	M	919999999994	NULL	Middle
2	0000000007	Eeshwar	Prasad	53	M	919999999993	NULL	Middle
3	0000000008	Raghavendra	Swamy	42	M	919999999992	NULL	Middle
4	0000000009	Shivaji	Chatrapati	61	M	919999999991	NULL	Middle
5	0000000010	Chakram	Kumar	14	M	919999999990	NULL	Middle
6	0000000011	Jai	Krishna	28	M	919999999912	NULL	Middle
7	0000000012	Prabha	lingaraju	41	M	919999999913	NULL	Middle
8	0000000013	Somesh	Thakur	33	M	919999999914	NULL	Middle
9	0000000014	Deepak	Chowdary	19	M	919999999915	NULL	Middle
10	0000000015	Karthik	Sajjan	20	M	919999999189	NULL	Middle
11	0000000016	Suvarna	Ram	54	F	919999999979	NULL	Middle
12	0000000017	Sunder	Ram	54	M	919999999923	NULL	Middle
13	0000000018	Manaswini	Ksheeraja	16	F	919999999122	NULL	Middle
14	0000000019	Shreya	Kuppa	8	F	919999999187	NULL	Middle
15	0000000020	Srinidhi	Kuppa	5	F	919999999964	NULL	Middle

QUERY 2 FOR ">"

```sql
SELECT * FROM T3_BUS
WHERE Booking_ID > '0100010';
```

108 %

Results | Messages

	Booking_ID	Bus_ID	Bus_Type	DateAndTime_Of_Arrival	DateAndTime_Of_Departure
1	0200011	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
2	0200012	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
3	0200013	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
4	0200014	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
5	0200015	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
6	0200016	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
7	0200017	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
8	0200018	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
9	0200019	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
10	0200020	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000

QUERY 1 FOR "<"

```sql
SELECT * FROM T3_EMPLOYEE_DETAILS
WHERE Salary < 12000;
```

108 %

Results | Messages

	Employee_ID	Name	Designation	Phone_Number	Salary
1	01005	R. PARESH	Cleaner	911234567894	8000.00
2	01007	O. JAYESH	Luggage Manager	911234567897	5000.00
3	02006	T. MALLESH	Cleaner	911234567895	8000.00

QUERY 2 FOR "<"

```sql
SELECT * FROM T3_BUS
WHERE Booking_ID < '0100012';
```

108 %

Results | Messages

	Booking_ID	Bus_ID	Bus_Type	DateAndTime_Of_Arrival	DateAndTime_Of_Departure
1	0100001	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
2	0100002	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
3	0100003	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
4	0100004	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
5	0100005	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
6	0100006	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
7	0100007	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
8	0100008	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
9	0100009	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000
10	0100010	8714	Sleeper	2021-03-04 15:15:00.000	2021-03-06 15:15:00.000

QUERY 1 FOR ">="

```sql
SELECT * FROM T3_CUSTOMER_DETAILS
WHERE Phone_No >= '91999999998';
```

108 %

Results | Messages

	Customer_ID	First_Name	Last_Name	Age	Gender	Phone_No	Address	Middle_Name
1	0000000002	Charan	Rao	28	M	919999999998	NULL	Middle
2	0000000003	Farhan	Abdul	37	M	919999999997	NULL	Middle
3	0000000004	Kissan	Chary	21	M	919999999996	NULL	Middle
4	0000000005	Laban	Seth	18	M	919999999995	NULL	Middle
5	0000000006	Cheman	Kumar	35	M	919999999994	NULL	Middle
6	0000000007	Eeshwar	Prasad	53	M	919999999993	NULL	Middle
7	0000000008	Raghavendra	Swamy	42	M	919999999992	NULL	Middle
8	0000000009	Shivaji	Chatrapati	61	M	919999999991	NULL	Middle
9	0000000010	Chakram	Kumar	14	M	919999999990	NULL	Middle

QUERY 2 FOR ">="

```sql
SELECT * FROM T3_EMPLOYEE_DETAILS
WHERE Salary >= 12000;
```

108 %

Results | Messages

	Employee_ID	Name	Designation	Phone_Number	Salary
1	01001	P. RAJESH	Driver	911234567890	12500.00
2	01002	A. RAMESH	Driver	911234567891	12500.00
3	02003	B. SURESH	Driver	911234567892	12500.00
4	02004	N. NARESH	Driver	911234567893	12500.00

QUERY 1 FOR "<="

```sql
SELECT * FROM T3_CUSTOMER_DETAILS
WHERE Age <= 20 AND Customer_ID <= 0000000015 ;
```

108 %

Results | Messages

	Customer_ID	First_Name	Last_Name	Age	Gender	Phone_No	Address	Middle_Name
1	0000000001	Karusala	Deepak	18	M	7702385485	NULL	NULL
2	0000000005	Laban	Seth	18	M	919999999995	NULL	Middle
3	0000000010	Chakram	Kumar	14	M	919999999990	NULL	Middle
4	0000000014	Deepak	Chowdary	19	M	919999999915	NULL	Middle
5	0000000015	Karthik	Sajjan	20	M	919999999189	NULL	Middle

QUERY 2 FOR "<="

```sql
SELECT * FROM T3_EMPLOYEE_DETAILS
WHERE Salary <= 10000;
```

108 %

Results | Messages

	Employee_ID	Name	Designation	Phone_Number	Salary
1	01005	R. PARESH	Cleaner	911234567894	8000.00
2	01007	O. JAYESH	Luggage Manager	911234567897	5000.00
3	02006	T. MALLESH	Cleaner	911234567895	8000.00

QUERY 1 FOR "< >"

```sql
SELECT * FROM T3_CUSTOMER_DETAILS
WHERE First_Name <> 'Shreya' AND Gender <> 'M' ;
```

108 %

Results | Messages

	Customer_ID	First_Name	Last_Name	Age	Gender	Phone_No	Address	Middle_Name
1	0000000016	Suvarna	Ram	54	F	919999999979	NULL	Middle
2	0000000018	Manaswini	Ksheeraja	16	F	919999999122	NULL	Middle
3	0000000020	Srinidhi	Kuppa	5	F	919999999964	NULL	Middle

QUERY 2 FOR "< >"

```sql
SELECT * FROM T3_BUS
WHERE Bus_ID <> 8714 ;
```

108 %

Results | Messages

	Booking_ID	Bus_ID	Bus_Type	DateAndTime_Of_Arrival	DateAndTime_Of_Departure
1	0200011	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
2	0200012	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
3	0200013	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
4	0200014	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
5	0200015	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
6	0200016	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
7	0200017	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
8	0200018	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
9	0200019	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000
10	0200020	6938	Sleeper	2021-03-04 05:30:00.000	2021-03-08 15:15:00.000

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

Logical Operator	Description
AND	Both the conditions mentioned in the WHERE clause should be TRUE.
OR	At least one of the conditions mentioned in the WHERE clause should be TRUE.
NOT	The mentioned condition should be false in the WHERE clause.
IN	Is used to search for specified value matches any value in set of multiple values.
BETWEEN	Is used to get values within a range.

QUERY 1 FOR AND

QUERY 2 FOR AND

QUERY 1 FOR OR

QUERY 2 FOR OR

```sql
SELECT Bus_ID, Booking_ID  FROM T3_BUS
WHERE Bus_Type='Sleeper' OR DateAndTime_Of_Arrival = '2021-03-04T05:30:00';
```

108 %

Results | Messages

	Bus_ID	Booking_ID
1	8714	0100001
2	8714	0100002
3	8714	0100003
4	8714	0100004
5	8714	0100005
6	8714	0100006
7	8714	0100007
8	8714	0100008
9	8714	0100009
10	8714	0100010
11	6938	0200011
12	6938	0200012
13	6938	0200013
14	6938	0200014
15	6938	0200015
16	6938	0200016
17	6938	0200017
18	6938	0200018
19	6938	0200019
20	6938	0200020

QUERY 1 FOR NOT

```sql
SELECT Employee_ID, Name, Salary, Phone_Number  FROM T3_EMPLOYEE_DETAILS
WHERE NOT Employee_ID='01001';
```

108 %

Results | Messages

	Employee_ID	Name	Salary	Phone_Number
1	01002	A. RAMESH	12500.00	911234567891
2	01005	R. PARESH	8000.00	911234567894
3	01007	O. JAYESH	5000.00	911234567897
4	02003	B. SURESH	12500.00	911234567892
5	02004	N. NARESH	12500.00	911234567893
6	02006	T. MALLESH	8000.00	911234567895

QUERY 2 FOR NOT

```sql
SELECT Customer_ID, First_Name, Last_Name,Age FROM T3_CUSTOMER_DETAILS
WHERE NOT Age>29;
```

108 %

Results | Messages

	Customer_ID	First_Name	Last_Name	Age
1	0000000001	Karusala	Deepak	18
2	0000000002	Charan	Rao	28
3	0000000004	Kissan	Chary	21
4	0000000005	Laban	Seth	18
5	0000000010	Chakram	Kumar	14
6	0000000011	Jai	Krishna	28
7	0000000014	Deepak	Chowdary	19
8	0000000015	Karthik	Sajjan	20
9	0000000018	Manaswini	Ksheeraja	16
10	0000000019	Shreya	Kuppa	8
11	0000000020	Srinidhi	Kuppa	5

QUERY 1 FOR IN

```
SELECT * FROM T3_CUSTOMER_DETAILS
WHERE Gender IN('M');
```

108 %

Results | Messages

	Customer_ID	First_Name	Last_Name	Age	Gender	Phone_No	Address	Middle_Name
1	0000000001	Karusala	Deepak	18	M	7702385485	NULL	NULL
2	0000000002	Charan	Rao	28	M	919999999998	NULL	Middle
3	0000000003	Farhan	Abdul	37	M	919999999997	NULL	Middle
4	0000000004	Kissan	Chary	21	M	919999999996	NULL	Middle
5	0000000005	Laban	Seth	18	M	919999999995	NULL	Middle
6	0000000006	Cheman	Kumar	35	M	919999999994	NULL	Middle
7	0000000007	Eeshwar	Prasad	53	M	919999999993	NULL	Middle
8	0000000008	Raghavendra	Swamy	42	M	919999999992	NULL	Middle
9	0000000009	Shivaji	Chatrapati	61	M	919999999991	NULL	Middle
10	0000000010	Chakram	Kumar	14	M	919999999990	NULL	Middle
11	0000000011	Jai	Krishna	28	M	919999999912	NULL	Middle
12	0000000012	Prabha	lingaraju	41	M	919999999913	NULL	Middle
13	0000000013	Somesh	Thakur	33	M	919999999914	NULL	Middle
14	0000000014	Deepak	Chowdary	19	M	919999999915	NULL	Middle
15	0000000015	Karthik	Sajjan	20	M	919999999189	NULL	Middle
16	0000000017	Sunder	Ram	54	M	919999999923	NULL	Middle

QUERY 2 FOR IN

```
SELECT * FROM T3_EMPLOYEE_DETAILS
WHERE Salary IN(5000, 12500);
```

108 %

Results | Messages

	Employee_ID	Name	Designation	Phone_Number	Salary
1	01001	P. RAJESH	Driver	911234567890	12500.00
2	01002	A. RAMESH	Driver	911234567891	12500.00
3	01007	O. JAYESH	Luggage Manager	911234567897	5000.00
4	02003	B. SURESH	Driver	911234567892	12500.00
5	02004	N. NARESH	Driver	911234567893	12500.00

QUERY 1 FOR BETWEEN

```
SELECT * FROM T3_CUSTOMER_DETAILS
WHERE Age BETWEEN 15 AND 30;
```

108 %

Results | Messages

	Customer_ID	First_Name	Last_Name	Age	Gender	Phone_No	Address	Middle_Name
1	0000000001	Karusala	Deepak	18	M	7702385485	NULL	NULL
2	0000000002	Charan	Rao	28	M	919999999998	NULL	Middle
3	0000000004	Kissan	Chary	21	M	919999999996	NULL	Middle
4	0000000005	Laban	Seth	18	M	919999999995	NULL	Middle
5	0000000011	Jai	Krishna	28	M	919999999912	NULL	Middle
6	0000000014	Deepak	Chowdary	19	M	919999999915	NULL	Middle
7	0000000015	Karthik	Sajjan	20	M	919999999189	NULL	Middle
8	0000000018	Manaswini	Ksheeraja	16	F	919999999122	NULL	Middle

QUERY 2 FOR BETWEEN

```
SELECT * FROM T3_EMPLOYEE_DETAILS
WHERE Salary BETWEEN 1000 AND 15000;
```

108 %

Results | Messages

	Employee_ID	Name	Designation	Phone_Number	Salary
1	01001	P. RAJESH	Driver	911234567890	12500.00
2	01002	A. RAMESH	Driver	911234567891	12500.00
3	01005	R. PARESH	Cleaner	911234567894	8000.00
4	01007	O. JAYESH	Luggage Manager	911234567897	5000.00
5	02003	B. SURESH	Driver	911234567892	12500.00
6	02004	N. NARESH	Driver	911234567893	12500.00
7	02006	T. MALLESH	Cleaner	911234567895	8000.00