

2. Create a table CLIENT to store CLIENT_NO, NAME, ADDRESS, STATE, BAL_DUE. Client no must start with 'C'. Apply the suitable structure for the columns. Specify Primary Key and NOT NULL constraints on the table. Insert 10 records. Write the following SQL queries:
- From the table CLIENT, create a new table CLIENT1 that contains only CLIENT_NO and NAME, BAL_DUE from specified STATE. Accept the state during run time.
 - Create a new table CLIENT2 that has the same structure as CLIENT but with no records. Display the structure and records.
 - Add a new column by name PENALTY number (10, 2) to the CLIENT.
 - Assign Penalty as 10% of BAL_DUE for the clients C1002, C1005, C1009 and for others 8%. Display Records.
 - Change the name of CLIENT1 as NEW_CLIENT.
 - Delete the table CLIENT2.

2.1 Creating the table and describing its structure

```
CREATE TABLE CLIENT
(
  CLIENT_NO VARCHAR(6) PRIMARY KEY,
  NAME VARCHAR(20) NOT NULL,
  ADDRESS VARCHAR(30) NOT NULL,
  STATE VARCHAR(20) NOT NULL,
  BAL_DUE INTEGER NOT NULL,
  CHECK (CLIENT_NO LIKE 'C%')
);
```

Output

Table created.

Description of CLIENT table.

DESCRIBE CLIENT;	or	DESC CLIENT;	
Name		Null?	Type
-----		-----	-----
CLIENT_NO		NOT NULL	VARCHAR2(6)
NAME		NOT NULL	VARCHAR2(20)
ADDRESS		NOT NULL	VARCHAR2(30)
STATE		NOT NULL	VARCHAR2(20)
BAL_DUE		NOT NULL	NUMBER(38)

2.2 Loading data into the table

```
INSERT INTO CLIENT VALUES ('C1001', 'TARUN', '#1, KD-ROAD, MYSORE', 'KARNATAKA', 45000);
INSERT INTO CLIENT VALUES ('C1002', 'NAYANA', '#18, MG-ROAD, BANGALORE', 'KARNATAKA', 95000);
INSERT INTO CLIENT VALUES ('C1003', 'ASHRAY', '#21, PVS CIRCLE, MANGALORE', 'KARNATAKA', 185000);
INSERT INTO CLIENT VALUES ('C1004', 'ISHA', '#44, ASHOK NAGAR', 'DELHI', 55000);
INSERT INTO CLIENT VALUES ('C1005', 'RISHAN', '#22, JLB ROAD', 'RAJASTHAN', 40000);
INSERT INTO CLIENT VALUES ('C1006', 'JENNY', '#7, BRINDAVAN', 'DELHI', 45000);
```

```
INSERT INTO CLIENT VALUES ('C1007', 'ADVAITH', '#81, GANGA NAGAR', 'UTTAR PRADESH', 25000);
INSERT INTO CLIENT VALUES ('C1008', 'SHARANYA', '#89, VV ROAD', 'UTTAR PRADESH', 10000);
INSERT INTO CLIENT VALUES ('C1009', 'ANANYA', '#63, INDUSTRIAL AREA', 'WEST BENGAL', 190000);
INSERT INTO CLIENT VALUES ('C1010', 'ADITHYA', '#10, AVENUE ROAD', 'KERALA', 125000);
```

Output

10 rows created.

Displaying the values inserted into the CLIENT table.

```
SELECT *
FROM CLIENT;
```

CLIENT NAME	ADDRESS	STATE	BAL_DUE	
C1001	TARUN	#1, KD-ROAD, MYSORE	KARNATAKA	45000
C1002	NAYANA	#18, MG-ROAD, BANGALORE	KARNATAKA	95000
C1003	ASHRAY	#21, PVS CIRCLE, MANGALORE	KARNATAKA	185000
C1004	ISHA	#44, ASHOK NAGAR	DELHI	55000
C1005	RISHAN	#22, JLB ROAD	RAJASTHAN	40000
C1006	JENNY	#7, BRINDAVAN	DELHI	45000
C1007	ADVAITH	#81, GANGA NAGAR	UTTAR PRADESH	25000
C1008	SHARANYA	#89, VV ROAD	UTTAR PRADESH	10000
C1009	ANANYA	#63, INDUSTRIAL AREA	WEST BENGAL	190000
C1010	ADITHYA	#10, AVENUE ROAD	KERALA	125000

10 rows selected.

2.3 Queries

2.3.1 From the table CLIENT, create a new table CLIENT1 that contains only CLIENT_NO and NAME, BAL_DUE from specified STATE. Accept the state during run time.

```
CREATE TABLE CLIENT1 AS
SELECT CLIENT_NO, NAME, BAL_DUE
FROM CLIENT
WHERE STATE=&STATE;
```

Output

```
Enter value for state: 'KARNATAKA'
old 4: WHERE STATE=&STATE
new 4: WHERE STATE='KARNATAKA'
```

Table created.

Description of CLIENT1 table.

```
DESCRIBE CLIENT1;          or          DESC CLIENT1;
Name                       Null?          Type
-----
CLIENT_NO                  NOT NULL      VARCHAR2(6)
NAME                       NOT NULL      VARCHAR2(20)
BAL_DUE                    NOT NULL      NUMBER(38)
```

Displaying the values present in the CLIENT1 table.

```
SELECT *
FROM CLIENT1;
```

```

CLIENT NAME      BAL_DUE
-----
C1001 TARUN      45000
C1002 NAYANA     95000
C1003 ASHRAY     185000

```

- 2.3.2** Create a new table CLIENT2 that has the same structure as CLIENT but with no records. Display the structure and records.

```

CREATE TABLE CLIENT2 AS
SELECT *
FROM CLIENT WHERE 1=2;

```

Output

Description of CLIENT2 table.

```

DESCRIBE CLIENT2;          or      DESC CLIENT2;

```

Name	Null?	Type
CLIENT_NO		VARCHAR2(6)
NAME	NOT NULL	VARCHAR2(20)
ADDRESS	NOT NULL	VARCHAR2(30)
STATE	NOT NULL	VARCHAR2(20)
BAL_DUE	NOT NULL	NUMBER(38)

Displaying the values present in the CLIENT2 table.

```

SELECT *
FROM CLIENT2;

no rows selected

```

- 2.3.3** Add a new column by name PENALTY number (10, 2) to the CLIENT.

```

ALTER TABLE CLIENT
ADD PENALTY NUMBER(10, 2);

```

Output

Table altered.

Description of CLIENT table.

```

DESCRIBE CLIENT;          or      DESC CLIENT;

```

Name	Null?	Type
CLIENT_NO	NOT NULL	VARCHAR2(6)
NAME	NOT NULL	VARCHAR2(20)
ADDRESS	NOT NULL	VARCHAR2(30)
STATE	NOT NULL	VARCHAR2(20)
BAL_DUE	NOT NULL	NUMBER(38)
PENALTY		NUMBER(10,2)

- 2.3.4** Assign Penalty as 10% of BAL_DUE for the clients C1002, C1005, C1009 and for others 8%. Display Records.

```

UPDATE CLIENT SET PENALTY = CASE

```

```
WHEN CLIENT_NO IN ('C1002', 'C1005', 'C1009') THEN BAL_DUE*0.10
WHEN CLIENT_NO NOT IN ('C1002', 'C1005', 'C1009') THEN BAL_DUE*0.08
END;
```

Output

CLIENT NAME	ADDRESS	STATE	BAL_DUE	PENALTY
C1001 TARUN	#1, KD-ROAD, MYSORE	KARNATAKA	45000	3600
C1002 NAYANA	#18, MG-ROAD, BANGALORE	KARNATAKA	95000	9500
C1003 ASHRAY	#21, PVS CIRCLE, MANGALORE	KARNATAKA	185000	14800
C1004 ISHA	#44, ASHOK NAGAR	DELHI	55000	4400
C1005 RISHAN	#22, JLB ROAD	RAJASTHAN	40000	4000
C1006 JENNY	#7, BRINDAVAN	DELHI	45000	3600
C1007 ADVAITH	#81, GANGA NAGAR	UTTAR PRADESH	25000	2000
C1008 SHARANYA	#89, VV ROAD	UTTAR PRADESH	10000	800
C1009 ANANYA	#63, INDUSTRIAL AREA	WEST BENGAL	190000	19000
C1010 ADITHYA	#10, AVENUE ROAD	KERALA	125000	10000

10 rows selected.

2.3.5 Change the name of CLIENT1 as NEW_CLIENT.

```
RENAME CLIENT1 TO NEW_CLIENT;
```

Output

Table renamed.

Checking whether table CLIENT1 exists.

```
SELECT *
FROM CLIENT1;
```

ORA-00942: table or view does not exist

2.3.6 Delete the table CLIENT2.

```
DROP TABLE CLIENT2;
```

Output

Table dropped.

Checking whether table CLIENT2 exists.

```
SELECT *
FROM CLIENT2;
```

ORA-04043: object client2 does not exist

Date of Submission	Remarks
Signature of the Lecturer	