VIT®

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

SWE1004 - (L 9 + L10)

Lab Sheet 4

Aggregate functions, Grouping and Sorting

NAME: Dishant Naik
Reg no.: 21MIA1127

Perform various data manipulation commands, aggregate functions and sorting concept on all created tables.

1. List total deposit from deposit.

Answer:

```
SQL> select sum(amount)
  2  from deposit21mia1127
  3  ;

SUM(AMOUNT)
-----------
      46500
```

2. List total loan from karolbagh branch

Answer:

```
SQL> select sum(amount)
  2  from borrow21mia1127
  3  where NAME = 'KAROLBAGH';

SUM(AMOUNT)
-----------
      18000
```

3. Give maximum loan from branch 'vice'.

Answer:

```
SQL> select max(amount)
  2  from borrow21mia1127
  3  where NAME = 'VICE';

MAX(AMOUNT)
-----------
       8000
```

4. Count total number of customers

Answer:

```
SQL> select count(CNAME)
  2  from customers21mia1127;

COUNT(CNAME)
------------
          10
```

5. Count total number of customer's cities.

Answer:

```
SQL> select count(CITY)
  2  from customers21mia1127;

COUNT(CITY)
-----------
         10
```

6. Display the highest deposit amount of Andheri branch

Answer:

```
SQL> select max(amount)
  2  from deposit21mia1127
  3  where BNAME = 'andheri';

MAX(AMOUNT)
-----------
       8000
```

7. Count the number of customers with more than one loan at different branches

Answer:

```
SQL> select count(CNAME),CNAME
  2  from borrow21mia1127
  3  GROUP BY CNAME HAVING COUNT(DISTINCT NAME) >1;

COUNT(CNAME) CNAME
------------ ----------------
           4 JOHN
```

8. Display the customer detail with highest deposit amount.

Answer:

```
SQL> select *
  2  from deposit21mia1127
  3  where amount=(select max(amount) from deposit21mia1127);

A_NO  CNAME            BNAME           AMOUNT A_DATE
----- ---------------- ---------- ---------- ---------
104   vijay            andheri          8000 17-SEP-06
```

9. Update the city of MADHURI from NAGPUR to CHENNAI

Answer:

```
SQL> update customers21mia1127
  2  SET CITY = 'CHENNAI'
  3  where CNAME = 'MADHURI';

1 row updated.

SQL> select *
  2  from customers21mia1127;

CNAME                 CITY
------------------    ------------------
ANIL                  CALCUTTA
SUNIL                 DELHI
MEHUL                 BARODA
MANDAR                PATNA
MADHURI               CHENNAI
PRAMOD                NAGPUR
SANDIP                SURAT
SHIVANI               BOMBAY
KRANTI                BOMBAY
NAREN                 BOMBAY

10 rows selected.
```

10. Display the total deposit amount for each branch

Answer:

```
SQL> select BNAME, sum(amount)
  2  from deposit21mia1127
  3  GROUP BY BNAME;

BNAME       SUM(AMOUNT)
----------  -----------
andheri           22000
villeparle         6500
Borivali           5500
virar              5000
dadar              7500
```

11. Display Branch wise deposit amount in descending order

Answer:

```
SQL> select BNAME, AMOUNT
  2  from deposit21mia1127
  3  ORDER BY AMOUNT DESC;

BNAME           AMOUNT
----------  ----------
andheri           8000
dadar             7500
andheri           7000
andheri           7000
villeparle        6500
Borivali          5500
virar             5000

7 rows selected.
```

12. Display the total sum of deposits of the customers if they have deposit at more than one branch.

Answer:

```
SQL> select CNAME, SUM(AMOUNT)
  2  FROM BORROW21MIA1127
  3  GROUP BY CNAME HAVING COUNT(*)>1;

CNAME           SUM(AMOUNT)
--------------- -----------
PETER                  8000
HARISH                18000
VIJAY                 10000
JOHN                  34000
```

<mark>Schema Structure:</mark>

DEPOSIT (A_NO, CNAME, BNAME, AMOUNT, ADATE)

BORROW (LOANNO, CNAME, BNAME, AMOUNT)

CUSTOMERS (CNAME, CITY)

<mark>Tables & Table instances</mark>

CREATE TABLE **DEPOSIT21MIA1127** (A_NO VARCHAR2(5), CNAME VARCHAR2(15), BNAME VARCHAR2(10), AMOUNT NUMBER(7,2),A_DATE DATE);

CREATE TABLE **BORROW21MIA1127** (LOANNO VARCHAR2(5), CNAME VARCHAR2(15), NAME VARCHAR2(10), AMOUNT NUMBER (7, 2));

CREATE TABLE **CUSTOMERS21MIA1127** (CNAME VARCHAR2(19), CITY VARCHAR2(18));

DEPOSIT:

INSERT INTO **DEPOSIT21MIA1127** VALUES ('101','Anil','andheri',7000,'01-jan-06');

INSERT INTO **DEPOSIT21MIA1127** VALUES ('102','sunil','virar',5000,'15-jul-06');

INSERT INTO **DEPOSIT21MIA1127** VALUES ('103', 'jay','villeparle',6500,'12-mar-06');

INSERT INTO **DEPOSIT21MIA1127** VALUES ('104','vijay','andheri', 8000,'17-sep-06');

INSERT INTO **DEPOSIT21MIA1127** VALUES ('105','keyur','dadar', 7500,'19-nov-06');

INSERT INTO **DEPOSIT21MIA1127** VALUES ('106','Mayor','Borivali', 5500,'21-dec-06');

INSERT INTO **DEPOSIT21MIA1127** VALUES ('101','Anil','andheri',7000,'01-jan-06');

BORROW:

INSERT INTO **BORROW21MIA1127** VALUES ('1001','VIJAY','ANDHERI',5000);

INSERT INTO **BORROW21MIA1127** VALUES ('1002','HARISH',' KAROLBAGH',9000);

INSERT INTO **BORROW21MIA1127** VALUES ('1003','PETER','VICE',4000);

INSERT INTO **BORROW21MIA1127** VALUES ('1004','JOHN','VICE',8000);

INSERT INTO **BORROW21MIA1127** VALUES ('1004','JOHN','KAROLBAGH',9000);

INSERT INTO **BORROW21MIA1127** VALUES ('1001','VIJAY','ANDHERI',5000);

INSERT INTO **BORROW21MIA1127** VALUES ('1002','HARISH',' KAROLBAGH',9000);

INSERT INTO **BORROW21MIA1127** VALUES ('1003','PETER','VICE',4000);

INSERT INTO **BORROW21MIA1127** VALUES ('1004','JOHN','VICE',8000);

INSERT INTO **BORROW21MIA1127** VALUES ('1004','JOHN','KAROLBAGH',9000)

CUSTOMERS:

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('ANIL','CALCUTTA');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('SUNIL','DELHI');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('MEHUL','BARODA');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('MANDAR','PATNA') ;

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('MADHURI','NAGPUR');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('PRAMOD','NAGPUR');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('SANDIP','SURAT');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('SHIVANI','BOMBAY');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('KRANTI','BOMBAY');

INSERT INTO **CUSTOMERS21MIA1127** VALUES ('NAREN','BOMBAY');

Important guidelines to be followed

- Every table created should have the last four digits of your registration number **together with the table name(eg:emp_1021)**
- Insert **records** for each table as per the requirements of the query.
- No query must return an answer **"No rows found"**
- *Upload a **PDF** document with*
  - *the screenshots of tables created, Records of the tables,*
  - *SQL queries with answers*