**DBMS PRACTICAL 1**

1. **DDL commands: create, desc , alter, drop, rename**

SQL> create table student\_01 ( rollno number(10), s\_name varchar2(20), city varchar2(33));

Table created.

SQL> desc student\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

ROLLNO NUMBER(10)

S\_NAME VARCHAR2(20)

CITY VARCHAR2(33)

SQL> alter table student\_02 add constraint p\_02 primary key(rollno); //adding primary key

Table altered.

SQL> alter table student\_02 add constraint c2 check(rollno<20); //adding constraint

Table altered.

SQL> desc student\_02; //displaying contents of the table

Name Null? Type

----------------------------------------- -------- ----------------------------

ROLLNO NOT NULL NUMBER(10)

S\_NAME VARCHAR2(20)

CITY VARCHAR2(33)

SQL> alter table student\_02 add constraint u2 unique (city); //adding a unique key

Table altered.

SQL> create table student\_002 ( sub1 number(20), sub2 number(15));

Table created.

SQL> desc student\_002;

Name Null? Type

----------------------------------------- -------- ----------------------------

SUB1 NUMBER(20)

SUB2 NUMBER(15)

SQL> alter table student\_002

2 add rollno number(20);

Table altered.

SQL> desc student\_002;

Name Null? Type

----------------------------------------- -------- ----------------------------

SUB1 NUMBER(20)

SUB2 NUMBER(15)

ROLLNO NUMBER(20)

SQL> alter table student\_001 drop column rollno;

Table altered.

SQL> desc student\_001;

Name Null? Type

----------------------------------------- -------- ----------------------------

SUB1 NUMBER(20)

SUB2 NUMBER(15)

SQL> alter table student\_002 add constraint f2 foreign key (sub1) references student\_02;

//adding foreign key

Table altered.

SQL> alter table student\_02 rename column rollno to r\_no;

Table altered.

SQL> desc student\_1;

Name Null? Type

----------------------------------------- -------- ----------------------------

R\_NO NOT NULL NUMBER(10)

S\_NAME VARCHAR2(20)

CITY VARCHAR2(33)

SQL> rename student\_02 to student\_2; //renaming

Table renamed.

1. **DML Commands: insert, update, delete**

SQL> /

Enter value for r\_no: 1

Enter value for s\_name: 'nishita'

Enter value for city: 'patna'

old 1: insert into student\_01 values (&r\_no, &s\_name, &city)

new 1: insert into student\_01 values (1, 'nishita', 'patna')

1 row created.

SQL> insert into student\_2 values (&r\_no, &s\_name, &city);

Enter value for r\_no: 2

Enter value for s\_name: 'hammad'

Enter value for city: 'mumbai'

old 1: insert into student\_02 values (&r\_no, &s\_name, &city)

new 1: insert into student\_01 values (2, 'hammad', 'mumbai')

1 row created.

SQL> select \* from student\_2;

R\_NO S\_NAME CITY

---------- -------------------- ---------------------------------

1 nishita patna

2 hammad mumbai

1. **TCL Commands: commit, rollback**

SQL> commit;

Commit complete.

1. **DCL Commands: grant, revoke**

SQL> create user Hammad identified by hammad123; //creating new user

User created.

SQL> select \* from ALL\_USERS; //displaying all the users using MySQL

USERNAME USER\_ID CREATED

------------------------------ ---------- ---------

HAMMAD 54 25-JUL-19

MGMT\_VIEW 53 11-JUL-19

MDDATA 50 11-JUL-19

SYSMAN 51 11-JUL-19

MDSYS 46 11-JUL-19

SI\_INFORMTN\_SCHEMA 45 11-JUL-19

ORDPLUGINS 44 11-JUL-19

ORDSYS 43 11-JUL-19

OLAPSYS 47 11-JUL-19

ANONYMOUS 39 11-JUL-19

XDB 38 11-JUL-19

USERNAME USER\_ID CREATED

------------------------------ ---------- ---------

CTXSYS 36 11-JUL-19

EXFSYS 34 11-JUL-19

WMSYS 25 11-JUL-19

DBSNMP 24 11-JUL-19

TSMSYS 21 11-JUL-19

DMSYS 35 11-JUL-19

DIP 19 11-JUL-19

OUTLN 11 11-JUL-19

SYSTEM 5 11-JUL-19

SYS 0 11-JUL-19

21 rows selected.

SQL> GRANT create session to Hammad; //granting session to new user nishita

Grant succeeded.

SQL> grant insert,select on student\_2 to Hammad; //giving nishita permission to insert and view table contents

Grant succeeded.

SQL> revoke all on student\_2 from Hammad; //revoking insertion and selection access

Revoke succeeded.

SQL> revoke create session from Hammad; //revoking session

Revoke succeeded.

SQL> create table stud\_1 as select \* from student\_2;

Table created.

SQL> desc stud\_1;

Name Null? Type

----------------------------------------- -------- ----------------------------

R\_NO NUMBER(10)

S\_NAME VARCHAR2(20)

CITY VARCHAR2(33)

SQL> create sequence sq\_1

2 start with 1

3 maxvalue 15

4 increment by 1

5 cache 20;

Sequence created.

SQL> insert into stud\_1 values(sq\_1.nextval, 'diksha','borivali');

1 row created.

SQL> select \* from stud\_1;

R\_NO S\_NAME CITY

---------- -------------------- ---------------------------------

1 nishita patna

2 hammad mumbai

4 Maulika Virar

1 diksha borivali

SQL> rollback;

Rollback complete.

SQL> select \* from stud\_2;

R\_NO S\_NAME CITY

---------- -------------------- ---------------------------------

1 nishita patna

2 hammad mumbai

4 Maulika Virar

SQL> drop sequence sq\_1;

Sequence dropped.

SQL> create sequence sq\_1

2 start with 5

3 maxvalue 15

4 increment by 1

5 cache 20;

Sequence created.

SQL> insert into stud\_2 values(sq\_1.nextval, 'riya', 'borivali');

1 row created.

SQL> desc stud\_2;

Name Null? Type

----------------------------------------- -------- ----------------------------

R\_NO NUMBER(10)

S\_NAME VARCHAR2(20)

CITY VARCHAR2(33)

SQL> select \* from stud\_2;

R\_NO S\_NAME CITY

---------- -------------------- ---------------------------------

1 nishita mumbai

2 hammad jaipur

4 Maulika Virar

5 riya borivali

SQL> commit;

Commit complete.

SQL> create view stud\_2\_view\_1 as select r\_no, s\_name from stud\_2; //creating view

View created.

SQL> insert into stud\_2\_view\_1 values(6,'diksha');

1 row created.

SQL> select \* from stud\_2\_view\_1;

R\_NO S\_NAME

---------- --------------------

1 nishita

2 hammad

4 Maulika

5 riya

6 diksha

SQL> commit;

Commit complete.

SQL> desc stud\_2;

Name Null? Type

----------------------------------------- -------- ----------------------------

R\_NO NUMBER(10)

S\_NAME VARCHAR2(20)

CITY VARCHAR2(33)

SQL> select \* from stud\_2;

R\_NO S\_NAME CITY

---------- -------------------- ---------------------------------

1 nishita mumbai

2 hammad jaipur

4 Maulika Virar

5 riya borivali

6 diksha

SQL> commit;

Commit complete.

SQL> alter table student\_02 drop constraint f2;

Table altered.

SQL> desc student\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

SUB1 NUMBER(20)

SUB2 NUMBER(15)

SQL> alter table student\_02

2 add r\_no number(15);

Table altered.

SQL> desc student\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

SUB1 NUMBER(20)

SUB2 NUMBER(15)

R\_NO NUMBER(15)

SQL> spool off;

1. **Using DML,TCL,DCL and DDL on tables borrow\_02,customer\_02, deposit\_02 and branch\_02**

SQL> create table deposit\_02( acno varchar2(5), cname varchar2(18), bname varchar2(18), amount number(8,2));

Table created.

SQL> desc deposit\_02

Name Null? Type

----------------------------------------- -------- ----------------------------

ACNO VARCHAR2(5)

CNAME VARCHAR2(18)

BNAME VARCHAR2(18)

AMOUNT NUMBER(8,2)

SQL> create table Branch\_02( bname varchar2(20),city varchar2(20));

Table created.

SQL> create table customer\_02( cname varchar2(20),city varchar2(20));

Table created.

SQL> create table borrow\_02( loanno varchar2(5), cname varchar2(18), bname varchar2(18), amount number(8,2));

Table created.

SQL> desc Branch\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

BNAME VARCHAR2(20)

CITY VARCHAR2(20)

SQL> desc customer\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

CNAME VARCHAR2(20)

CITY VARCHAR2(20)

SQL> desc borrow\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

LOANNO VARCHAR2(5)

CNAME VARCHAR2(18)

BNAME VARCHAR2(18)

AMOUNT NUMBER(8,2)

SQL> alter table deposit\_02 add constraint pkk1 primary key (acno);

Table altered.

SQL> desc deposit\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

ACNO NOT NULL VARCHAR2(5)

CNAME VARCHAR2(18)

BNAME VARCHAR2(18)

AMOUNT NUMBER(8,2)

SQL> alter table deposit\_02 modify (cname not null, bname not null);

Table altered.

SQL> desc deposit\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

ACNO NOT NULL VARCHAR2(5)

CNAME NOT NULL VARCHAR2(18)

BNAME NOT NULL VARCHAR2(18)

AMOUNT NUMBER(8,2)

SQL> alter table deposit\_02 add constraint ch1 check(amount<1000);

Table altered.

SQL> alter table deposit\_02 add adate date;

Table altered.

SQL> desc deposit\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

ACNO NOT NULL VARCHAR2(5)

CNAME NOT NULL VARCHAR2(18)

BNAME NOT NULL VARCHAR2(18)

AMOUNT NUMBER(8,2)

ADATE DATE

SQL> alter table branch\_02 add constraint pk2 primary key (bname);

Table altered.

SQL> alter table customer\_02 add constraint pk3 primary key (cname);

Table altered.

SQL> alter table borrow\_02 add constraint pk4 primary key (loanno);

Table altered.

SQL> alter table borrow\_02 modify (cname not null, bname not null);

Table altered.

SQL> desc borrow\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

LOANNO NOT NULL VARCHAR2(5)

CNAME NOT NULL VARCHAR2(18)

BNAME NOT NULL VARCHAR2(18)

AMOUNT NUMBER(8,2)

SQL> alter table deposit\_02 add constraint fk1 foreign key (bname) references branch\_02;

Table altered.

SQL> alter table deposit\_02 add constraint fk2 foreign key (cname) references customer\_02;

Table altered.

SQL> alter table borrow\_02 add constraint fk3 foreign key (cname) references customer\_02;

Table altered.

SQL> alter table borrow\_02 add constraint fk4 foreign key (bname) references branch\_02;

Table altered.

SQL> insert into branch\_02 (bname, city) values ('VRCE','NAGPUR');

1 row created.

SQL> insert into branch\_02 values('AJNI','NAGPUR');

1 row created.

SQL> insert into branch\_02 values('KAROLBAGH; 'DELHI');

SQL> insert into branch\_02 values ('KAROLBAGH','DELHI');

1 row created.

SQL> insert into branch\_02 values ('CHANDNI','DELHI');

1 row created.

SQL> insert into branch\_02 values ('DHARAMPETH', 'NAGPUR');

1 row created.

SQL> insert into branch\_02 values ('M.G.ROAD', 'BANGALORE');

1 row created.

SQL> insert into branch\_02 values ('$bname','$city');

1 row created.

SQL> /

Enter value for bname: 'ANDHERI'

Enter value for city: 'MUMBAI'

old 1: insert into branch\_02 values (&bname,&city)

new 1: insert into branch\_02 values ('ANDHERI','MUMBAI')

1 row created.

SQL> /

Enter value for bname: 'VIRAR'

Enter value for city: 'MUMBAI'

old 1: insert into branch\_02 values (&bname,&city)

new 1: insert into branch\_02 values ('VIRAR','MUMBAI')

1 row created.

SQL> /

Enter value for bname: 'NEHRU PLACE'

Enter value for city: 'DELHI'

old 1: insert into branch\_02 values (&bname,&city)

new 1: insert into branch\_02 values ('NEHRU PLACE','DELHI')

1 row created.

SQL> /

Enter value for bname: 'POWAI'

Enter value for city: 'MUMBAI'

old 1: insert into branch\_02 values (&bname,&city)

new 1: insert into branch\_02 values ('POWAI','MUMBAI')

1 row created.

SQL> select \* from branch\_02;

BNAME CITY

-------------------- --------------------

VRCE NAGPUR

AJNI NAGPUR

KAROLBAGH DELHI

CHANDNI DELHI

DHARAMPETH NAGPUR

M.G.ROAD BANGALORE

$bname $city

ANDHERI MUMBAI

VIRAR MUMBAI

NEHRU PLACE DELHI

POWAI MUMBAI

11 rows selected.

SQL> delete from branch\_02 where bname = '$bname';

1 row deleted.

SQL> select \* from branch\_02;

BNAME CITY

-------------------- --------------------

VRCE NAGPUR

AJNI NAGPUR

KAROLBAGH DELHI

CHANDNI DELHI

DHARAMPETH NAGPUR

M.G.ROAD BANGALORE

ANDHERI MUMBAI

VIRAR MUMBAI

NEHRU PLACE DELHI

POWAI MUMBAI

10 rows selected.

SQL> desc customer\_02;

Name Null? Type

----------------------------------------- -------- ----------------------------

CNAME NOT NULL VARCHAR2(20)

CITY VARCHAR2(20)

SQL> insert into customer\_02 values (&cname, &city);

Enter value for cname: 'ANIL'

Enter value for city: 'KOLKATA'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ( 'ANIL', 'KOLKATA')

1 row created.

SQL> /

Enter value for cname: 'SUNIL'

Enter value for city: 'DELHI'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('SUNIL', 'DELHI')

1 row created.

SQL> /

Enter value for cname: 'MEHUL'

Enter value for city: 'BARODA'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('MEHUL', 'BARODA')

1 row created.

SQL> /

Enter value for cname: 'MANDAR'

Enter value for city: 'PATNA'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('MANDAR', 'PATNA')

1 row created.

SQL> /

Enter value for cname: 'MADHURI'

Enter value for city: 'NAGPUR'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('MADHURI', 'NAGPUR')

1 row created.

SQL> /

Enter value for cname: 'PRAMOD'

Enter value for city: 'NAGPUR'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('PRAMOD', 'NAGPUR')

1 row created.

SQL> /

Enter value for cname: 'SANDIP'

Enter value for city: 'SURAT'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('SANDIP', 'SURAT')

1 row created.

SQL> /

Enter value for cname: 'SHIVANI'

Enter value for city: 'MUMBAI'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('SHIVANI', 'MUMBAI')

1 row created.

SQL> /

Enter value for cname: 'KRANTI'

Enter value for city: 'MUMBAI'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('KRANTI', 'MUMBAI')

1 row created.

SQL> /

Enter value for cname: 'NAREN'

Enter value for city: 'MUMBAI'

old 1: insert into customer\_02 values (&cname, &city)

new 1: insert into customer\_02 values ('NAREN', 'MUMBAI')

1 row created.

SQL> select \* from customer\_02;

CNAME CITY

-------------------- --------------------

ANIL KOLKATA

SUNIL DELHI

MEHUL BARODA

MANDAR PATNA

MADHURI NAGPUR

PRAMOD NAGPUR

SANDIP SURAT

SHIVANI MUMBAI

KRANTI MUMBAI

NAREN MUMBAI

10 rows selected.

SQL> alter table deposit\_02 add constraint check1 check(amount>1000);

Table altered.

SQL> alter table deposit\_02 drop constraint check1;

Table altered.

SQL> alter table deposit\_02 drop constraint ch1;

Table altered.

SQL> commit;

Commit complete.

SQL> alter table deposit\_02 add constraint ch1 check(amount >= 1000);

Table altered.

SQL> insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate);

Enter value for acno: '100'

Enter value for bname: 'ANIL'

Enter value for cname: 'VRCE'

Enter value for amount: 1000.00

Enter value for adate: '1-MAR-95'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('100', 'ANIL', 'VRCE', 1000.00, '1-MAR-95')

1 row created.

SQL> /

Enter value for acno: '101'

Enter value for bname: 'SUNIL'

Enter value for cname: 'AJNI'

Enter value for amount: 5000.0

Enter value for adate: '4-JAN-96'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('101', 'SUNIL', 'AJNI', 5000.0, '4-JAN-96')

1 row created.

SQL> /

Enter value for acno: '102'

Enter value for bname: 'MEHUL'

Enter value for cname: 'KAROLBAGH'

Enter value for amount: 3500.00

Enter value for adate: '17-NOV-95'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('102', 'MEHUL', 'KAROLBAGH', 3500.00, '17-NOV-95')

1 row created.

SQL> /

Enter value for acno: '104'

Enter value for bname: 'MADHURI'

Enter value for cname: 'CHANDNI'

Enter value for amount: 1200.00

Enter value for adate: '17-DEC-95'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('104', 'MADHURI', 'CHANDNI', 1200.00, '17-DEC-95')

1 row created.

SQL> /

Enter value for acno: '105'

Enter value for bname: 'PRAMOD'

Enter value for cname: 'M.G.ROAD'

Enter value for amount: 3000.0

Enter value for adate: '27-MAR-96'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('105', 'PRAMOD', 'M.G.ROAD', 3000.0, '27-MAR-96')

1 row created.

SQL> /

Enter value for acno: '106'

Enter value for bname: 'SANDIP'

Enter value for cname: 'ANDHERI'

Enter value for amount: 2000.00

Enter value for adate: '31-MAR-96'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('106', 'SANDIP', 'ANDHERI', 2000.00, '31-MAR-96')

1 row created.

SQL> /

Enter value for acno: '107'

Enter value for bname: 'SHIVANI'

Enter value for cname: 'VIRAR'

Enter value for amount: 1000.00

Enter value for adate: '5-SEP-95'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('107', 'SHIVANI', 'VIRAR', 1000.00, '5-SEP-95')

1 row created.

SQL> /

Enter value for acno: '108'

Enter value for bname: 'KRANTI'

Enter value for cname: 'NEHRU PLACE'

Enter value for amount: 5000.00

Enter value for adate: '2-JUL-95'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('108', 'KRANTI', 'NEHRU PLACE', 5000.00, '2-JUL-95')

1 row created.

SQL> /

Enter value for acno: '109'

Enter value for bname: 'NAREN'

Enter value for cname: 'POWAI'

Enter value for amount: 7000.00

Enter value for adate: '10-AUG-95'

old 1: insert into deposit\_02 values(&acno, &bname, &cname, &amount, &adate)

new 1: insert into deposit\_02 values('109', 'NAREN', 'POWAI', 7000.00, '10-AUG-95')

1 row created.

SQL> COMMIT;

Commit complete.

1. **INBUILT FUNCTIONS**

* **Arithmetic Operator**

1. Multiplication Operator

SQL> select 1234 \* 123 from dual;

1234\*123

----------------

151782

1. Addition Operator

SQL> select 1234 + 123 from dual;

1234+123

----------

1357

SQL> select (amount)+100 from borrow\_02;

(AMOUNT)+100

------------

1101

5100

3100

2100

8100

3100

6 rows selected.

1. Subtraction Operator

SQL> select 1234 - 123 from dual;

1234-123

----------

1111

1. Division Operator

SQL> select 1234 / 123 from dual;

1234/2

----------

617

1. Unary Negation Operator

SQL> select -(amount) from borrow\_02;

-(AMOUNT)

----------

-1001

-5000

-3000

-2000

-8000

-3000

6 rows selected.

* Display System Date

SQL> select sysdate from dual;

SYSDATE

---------

22-JUL-19

* Relational Operators

1. Greater Than Operator

SQL> select \* from borrow\_02 where amount>=1000;

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

201 ANIL VRCE 1001

206 MEHUL AJNI 5000

311 SUNIL DHARAMPETH 3000

321 MADHURI ANDHERI 2000

375 PRAMOD VIRAR 8000

481 KRANTI NEHRU PLACE 3000

6 rows selected.

1. Not Equal to Operator

SQL> select \* from borrow\_02 where amount<>1001;

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

206 MEHUL AJNI 5000

311 SUNIL DHARAMPETH 3000

321 MADHURI ANDHERI 2000

375 PRAMOD VIRAR 8000

481 KRANTI NEHRU PLACE 3000

SQL> select \* from borrow\_02 where cname<>'MEHUL';

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

201 ANIL VRCE 1001

311 SUNIL DHARAMPETH 3000

321 MADHURI ANDHERI 2000

375 PRAMOD VIRAR 8000

481 KRANTI NEHRU PLACE 3000

* Logical Operators

1. OR Operator

SQL> select \* from borrow\_02 where cname='MEHUL' OR cname='SUNIL';

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

206 MEHUL AJNI 5000

311 SUNIL DHARAMPETH 3000

1. IN Operator

SQL> select \* from borrow\_02 where cname in ('MEHUL', 'SUNIL');

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

206 MEHUL AJNI 5000

311 SUNIL DHARAMPETH 3000

1. AND Operator

SQL> select \* from borrow\_02 where CNAME='MEHUL' AND BNAME='AJNI';

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

206 MEHUL AJNI 5000

1. NOT Operator

SQL> select \* from borrow\_02 where CNAME NOT IN 'MEHUL';

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

201 ANIL VRCE 1001

311 SUNIL DHARAMPETH 3000

321 MADHURI ANDHERI 2000

375 PRAMOD VIRAR 8000

481 KRANTI NEHRU PLACE 3000

* Math Operators

1. Absolute function

SQL> SELECT ABS(AMOUNT) FROM borrow\_02;

ABS(AMOUNT)

-----------

1001

5000

3000

2000

8000

3000

6 rows selected.

SQL> SELECT ABS(AMOUNT) AS AMT FROM borrow\_02;

AMT

----------

1001

5000

3000

2000

8000

3000

6 rows selected.

1. Ceil Function

SQL> SELECT CEIL(15.235) FROM DUAL;

CEIL(15.235)

------------

16

1. Floor Function

SQL> SELECT FLOOR(15.235) FROM DUAL;

FLOOR(15.235)

-------------

15

1. Truncate Function

SQL> SELECT TRUNC(23.456,2) FROM DUAL;

TRUNC(23.456,2)

---------------

23.45

1. Square Root Function

SQL> SELECT SQRT(25) FROM DUAL;

SQRT(25)

----------

5

* Character Functions

1. ASCII function

SQL> SELECT ASCII('A') FROM DUAL;

ASCII('A')

----------

65

SQL> SELECT ASCII('ABC') FROM DUAL;

ASCII('ABC')

------------

65

1. Character Function

SQL> SELECT CHR(65) FROM DUAL;

C

-

A

1. Initial Caps Function

SQL> SELECT INITCAP('heelloo') FROM DUAL;

INITCAP

-------

Heelloo

* String Functions

1. Lower Function

SQL> SELECT LOWER('HEELLOO') FROM DUAL;

LOWER('

-------

heelloo

1. LPAD function

SQL> SELECT LPAD('ABC',10,'\*') FROM DUAL;

LPAD('ABC'

----------

\*\*\*\*\*\*\*ABC

1. LTRIM Function

SQL> SELECT LTRIM('nishita',2) FROM DUAL;

LTRIM

-----

shita

Hello World

1. RTRIM Function

SQL> SELECT RTRIM(‘nishita',2) FROM DUAL;

RTRIM

-----

nishi

1. Sub string Function

SQL> SELECT SUBSTR('NISHITA',2,3) FROM DUAL;

SUB

---

ISH

1. INSTR Function

SQL> select INSTR('Corporate Floor','or', -3, 2) from dual;

INSTR('CORPORATEFLOOR','OR',-3,2)

---------------------------------

2

1. Concatenation Function

SQL> SELECT CONCAT(CNAME,CITY) FROM customer\_02;

CONCAT(CNAME,CITY)

------------------------------------

ANILKOLKATA

SUNILDELHI

MEHULBARODA

MANDARPATNA

MADHURINAGPUR

PRAMODNAGPUR

SANDIPSURAT

SHIVANIMUMBAI

KRANTIMUMBAI

NARENMUMBAI

10 rows selected.

SQL> SELECT CONCAT(CNAME,CONCAT(' ',CITY)) FROM customer\_02;

CONCAT(CNAME,CONCAT('',CITY))

-------------------------------------

ANIL KOLKATA

SUNIL DELHI

MEHUL BARODA

MANDAR PATNA

MADHURI NAGPUR

PRAMOD NAGPUR

SANDIP SURAT

SHIVANI MUMBAI

KRANTI MUMBAI

NAREN MUMBAI

10 rows selected.

* Date Functions

1. ADD\_MONTHS Function

SQL> SELECT ADD\_MONTHS('22-JUL-2019',2) FROM DUAL;

ADD\_MONTH

---------

22-SEP-19

1. LAST\_DAY Function

SQL> SELECT LAST\_DAY(SYSDATE) FROM DUAL;

LAST\_DAY(

---------

31-JUL-19

1. MONTHS\_BETWEEN Function

SQL> SELECT MONTHS\_BETWEEN(SYSDATE,'22-SEP-2019') FROM DUAL;

MONTHS\_BETWEEN(SYSDATE,'22-SEP-2019')

-------------------------------------

-2

1. NEXT\_DAY Function

SQL> SELECT NEXT\_DAY(SYSDATE,'SUNDAY') FROM DUAL;

NEXT\_DAY(

---------

28-JUL-19

6 rows selected.

* Extra Functions

1. ROWID function

SQL> SELECT ROWID,CNAME FROM borrow\_02;

ROWID CNAME

------------------ ------------------

AAAMiNAABAAAOs6AAA ANIL

AAAMiNAABAAAOs6AAB MEHUL

AAAMiNAABAAAOs6AAC SUNIL

AAAMiNAABAAAOs6AAD MADHURI

AAAMiNAABAAAOs6AAE PRAMOD

AAAMiNAABAAAOs6AAF KRANTI

6 rows selected.

1. ROWNUM Function

SQL> SELECT ROWNUM, CNAME FROM borrow\_02;

ROWNUM CNAME

---------- ------------------

1 ANIL

2 MEHUL

3 SUNIL

4 MADHURI

5 PRAMOD

6 KRANTI

6 rows selected.

* Aggregate Functions

1. Max Function

SQL> SELECT MAX(AMOUNT) FROM borrow\_02;

MAX(AMOUNT)

-----------

8000

SQL> SELECT \* FROM borrow\_02 WHERE AMOUNT=(SELECT MAX(AMOUNT) FROM borrow\_02);

LOANN CNAME BNAME AMOUNT

----- ------------------ ------------------ ----------

375 PRAMOD VIRAR 8000

1. Min Function

SQL> SELECT MIN(AMOUNT) FROM borrow\_02;

MIN(AMOUNT)

-----------

1000

1. Average Function

SQL> SELECT AVG(AMOUNT) FROM borrow\_02;

AVG(AMOUNT)

-----------

3666.83333

1. Count Function

SQL> SELECT COUNT(AMOUNT) FROM borrow\_02;

COUNT(AMOUNT)

-------------

6

1. Sum Function

SQL> SELECT SUM(AMOUNT) FROM borrow\_02;

SUM(AMOUNT)

-----------

22001

* Concatenation Operator

SQL> SELECT CNAME || ' ' || CITY FROM customer\_02;

CNAME||''||CITY

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ANIL KOLKATA

SUNIL DELHI

MEHUL BARODA

MANDAR PATNA

MADHURI NAGPUR

PRAMOD NAGPUR

SANDIP SURAT

SHIVANI MUMBAI

KRANTI MUMBAI

NAREN MUMBAI

10 rows selected.

* NVL and NVL2 commands:

SQL> select nvl(100,NULL) from dual;

NVL(100,NULL)

-------------

100

SQL> select nvl(200,100) from dual;

NVL(200,100)

------------

200

SQL> select nvl(100,200) from dual;

NVL(100,200)

------------

100

SQL> select nvl(NULL,200) from dual;

NVL(NULL,200)

-------------

200

SQL> select nvl2(100,200,NULL) from dual;

NVL2(100,200,NULL)

------------------

200

SQL> select nvl2(100,200,300) from dual;

NVL2(100,200,300)

-----------------

200

SQL> select nvl2(100,NULL,300) from dual;

NVL2(100,NULL,300)

* Coalesce commands:

SQL> select coalesce(NULL,NULL,NULL,2,NULL,3) from dual;

COALESCE(NULL,NULL,NULL,2,NULL,3)

---------------------------------

2