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| **PL/SQL Programs** | | | | |
| **1** | Write a PL/SQL block to accept the marks of 3 papers and display the result if student score more then 35 marks in each paper out of maximum marks 100 than declare pass otherwise fail. And specify the class depending upon following conditions:  Percentage Class  >=75 Distinction |  |  |  |
|  | >=60 First  >=45 Second  Otherwise Third |  |  |  |
| **2** | Write a PL/SQL block to find factorial of a number and store the number and its factorial in a table called FACT which contains two column namely number and result |  |  |  |
| **3** | Write a PL/SQL block to check number is palindrome or not |  |  |  |
| **4** | Write a program to divide a number by character number. If any error occurs it should be handled properly and store the error number and its description in a table called ERRORH |  |  |  |
| **5** | Write a PL/SQL block to accept and insert a valid data into the table PATIENT, having following structure. Write an appropriate user defined exception.    PNAME VARCHAR(20)  AGE NUMBER(2)  PRESCRIPTION VARCHAR2(20) |  |  |  |
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# Practical- 1) Create table DONAR with following arttributes

Name Null? Type

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

DNO NOT NULL NUMBER(4)

DNAME VARCHAR2(20)

CITY VARCHAR2(20)

AGE NUMBER(3)

SEX VARCHAR2(5)

BG VARCHAR2(5)

QUANTITY NUMBER(4)

DOD DATE

SQL> create table DONAR(Dno number(4) primary key,Dname varchar(20),City varchar(20),Age number(3),SEX VARCHAR(5),BG varchar(5),Quantity number(4),DOD DATE);

Table created.

SQL> DESC DONAR

Name Null? Type

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

DNO NOT NULL NUMBER(4)

DNAME VARCHAR2(20)

CITY VARCHAR2(20)

AGE NUMBER(3)

SEX VARCHAR2(5)

BG VARCHAR2(5)

QUANTITY NUMBER(4)

DOD DATE

**B) Insert the following values in DONAR Table with following values**

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11
2. ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11
3. VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11
4. SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11
5. ANUSHREE DHAKATE CHANDRAPUR 22 F A-VE 200 26-AUG-11
6. VIJETA DHAKATE BALLARPUR 22 F O+VE 100 25-AUG-11
7. AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11
8. AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

SQL> **insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD');** Enter value for dno: 101

Enter value for dname: RAJESH RAO

Enter value for city: CHANDRAPUR

Enter value for age: 28

Enter value for sex: M

Enter value for bg: O+ve

Enter value for quantity: 100 Enter value for dod: 25-AUG-11 old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(101,'RAJESH RAO','CHANDRAPUR',28,'M','O+ve',100,'25-AUG-11')

1 row created.

SQL> /

Enter value for dno: 102

Enter value for dname: ANAND SHARMA

Enter value for city: NAGPUR

Enter value for age: 20

Enter value for sex: M

Enter value for bg: O+VE

Enter value for quantity: 200 Enter value for dod: 26-AUG-11 old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(102,'ANAND SHARMA','NAGPUR',20,'M','O+VE',200,'26-AUG-11')

1 row created.

SQL> /

Enter value for dno: 103

Enter value for dname: VISHAL DESHPANDE

Enter value for city: HYDERABAD

Enter value for age: 23

Enter value for sex: M

Enter value for bg: O+VE

Enter value for quantity: 250 Enter value for dod: 26-AUG-11 old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(103,'VISHAL DESHPANDE','HYDERABAD',23,'M','O+VE',250,'26-AUG-11')

1 row created.

SQL> /

Enter value for dno: 104

Enter value for dname: SHRUTI RAKHUNDE

Enter value for city: CHANDRAPUR

Enter value for age: 22

Enter value for sex: F

Enter value for bg: A+VE

Enter value for quantity: 100 Enter value for dod: 27-AUG-11 old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(104,'SHRUTI RAKHUNDE','CHANDRAPUR',22,'F','A+VE',100,'27-AUG-11')

1 row created.

SQL> /

Enter value for dno: 105

Enter value for dname: ANUSHREE DHAKATE

Enter value for city: CHANDRAPUR

Enter value for age: 22

Enter value for sex: F

Enter value for bg: A-VE

Enter value for quantity: 200 Enter value for dod: 26-AUG-11 old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(105,'ANUSHREE DHAKATE','CHANDRAPUR',22,'F','A-VE',200,'26-AUG11')

1 row created.

SQL> /

Enter value for dno: 106

Enter value for dname: VIJETA DHAKATE

Enter value for city: BALLARPUR

Enter value for age: 22

Enter value for sex: F

Enter value for bg: O+VE

Enter value for quantity: 100

Enter value for dod: 25-AUG-11

old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(106,'VIJETA DHAKATE','BALLARPUR',22,'F','O+VE',100,'25-AUG-11')

1 row created.

SQL> /

Enter value for dno: 107

Enter value for dname: AAMIR TAJA

Enter value for city: CHANDRAPUR

Enter value for age: 21

Enter value for sex: M

Enter value for bg: O+VE

Enter value for quantity: 250

Enter value for dod: 27-AUG-11 old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(107,'AAMIR TAJA','CHANDRAPUR',21,'M','O+VE',250,'27-AUG-11')

1 row created.

SQL> /

Enter value for dno: 108

Enter value for dname: AMIR KHAN

Enter value for city: DURGAPUR

Enter value for age: 25

Enter value for sex: M

Enter value for bg: O+VE

Enter value for quantity: 100 Enter value for dod: 25-AUG-11 old 1: insert into donar values(&dno,'&dname','&city',&age,'&sex','&BG',&QUANTITY,'&DOD') new 1: insert into donar values(108,'AMIR KHAN','DURGAPUR',25,'M','O+VE',100,'25-AUG-11')

1 row created.

SQL> SELECT \* FROM DONAR;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11
2. ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11
3. VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11
4. SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11
5. ANUSHREE DHAKATE CHANDRAPUR 22 F A-VE 200 26-AUG-11
6. VIJETA DHAKATE BALLARPUR 22 F O+VE 100 25-AUG-11
7. AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11
8. AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

8 rows selected.

**C) Perform following queries on above table**

# 1) Find all donars whose name starts between alphabets “A” to “S”

SQL> select \* from donar where dname between 'A' AND 'S';

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11
2. ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11

105 ANUSHREE DHAKATE CHANDRAPUR 22 F A-VE 200 26-AUG-11

1. AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11
2. AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

# 2) Find all donar who belongs to city CHANDRAPUR

SQL> select \* from donar where city='CHANDRAPUR';

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

101 RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11

1. SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11
2. ANUSHREE DHAKATE CHANDRAPUR 22 F A-VE 200 26-AUG-11

107 AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11

# 3) Find all donars who does not belongs to CHANDRAPUR City

SQL> select \* from donar where city not in ('CHANDRAPUR');

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11
2. VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11

106 VIJETA DHAKATE BALLARPUR 22 F O+VE 100 25-AUG-11

108 AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

# 4) Find all donars who belongs to either CHANDRAPUR or NAGPUR City

SQL> SELECT \* FROM DONAR WHERE CITY IN('CHANDRAPUR','NAGPUR');

DNO DNAME CITY AGE SEX BG QUANTITY DOD

---------- -------------------- -------------------- ---------- ----- ----- ---------- ----------------------------- 101 RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11 102 ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11

1. SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11
2. ANUSHREE DHAKATE CHANDRAPUR 22 F A-VE 200 26-AUG-11

107 AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11

# 5) Find all donars whose city value contains NULL

SQL> SELECT \* FROM DONAR WHERE CITY IS NULL;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

105 ANUSHREE DHAKATE 22 F A-VE 200 26-AUG-11

# 6) Arrange all donars in the sorted order whose age is between 18 and 22

SQL> SELECT \* FROM DONAR WHERE AGE<=22;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

102 ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11

1. SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11
2. ANUSHREE DHAKATE 22 F A-VE 200 26-AUG-11
3. VIJETA DHAKATE BALLARPUR 22 F O+VE 100 25-AUG-11
4. AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11

**7) Find all male donars**

SQL> SELECT \* FROM DONAR WHERE SEX='M';

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

101 RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11 102 ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11

103 VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11

1. AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11
2. AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

# 8) Find all male donars have o+Ve blood group

SQL> SELECT \* FROM DONAR WHERE SEX='M' AND BG='O+VE';

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11
2. VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11
3. AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11
4. AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

# 9) Find all donars who donated the blood between 25-AUG-11 and 26-AUG-11

SQL> select \* from donar where dod between '25-AUG-11' AND '26-AUG-11';

DNO DNAME CITY AGE SEX BG QUANTITY DOD

---------- -------------------- -------------------- ---------- ----- ----- ---------- ---------------------------------- 101 RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11

102 ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11 103 VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11

1. ANUSHREE DHAKATE 22 F A-VE 200 26-AUG-11
2. VIJETA DHAKATE BALLARPUR 22 F O+VE 100 25-AUG-11

108 AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

6 rows selected.

# 10) Find all donars who donated more than 100 ml of blood

SQL> select \* from donar where quantity > 100;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11
2. VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11

105 ANUSHREE DHAKATE 22 F A-VE 200 26-AUG-11

107 AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11

# 11) Find all female donars who belong to city CHANDRAPUR having blood group “A+VE”

SQL> SELECT \* FROM DONAR WHERE SEX='F' AND CITY='CHANDRAPUR';

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

104 SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11

# 12) Display all donars according their age

SQL> SELECT \* FROM DONAR ORDER BY AGE;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

102 ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11 107 AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11

1. SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11 106 VIJETA DHAKATE BALLARPUR 22 F O+VE 100 25-AUG-11
2. ANUSHREE DHAKATE 22 F A-VE 200 26-AUG-11

103 VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11

108 AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

101 RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11

8 rows selected.

# 13) Display the donar list in recent order of donation date

SQL> SELECT \* FROM DONAR ORDER BY DOD DESC;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

---------- -------------------- -------------------- ---------- ----- ----- ---------- -------------------------------- 104 SHRUTI RAKHUNDE CHANDRAPUR 22 F A+VE 100 27-AUG-11

107 AAMIR TAJA CHANDRAPUR 21 M O+VE 250 27-AUG-11

103 VISHAL DESHPANDE HYDERABAD 23 M O+VE 250 26-AUG-11

105 ANUSHREE DHAKATE 22 F A-VE 200 26-AUG-11

102 ANAND SHARMA NAGPUR 20 M O+VE 200 26-AUG-11

108 AMIR KHAN DURGAPUR 25 M O+VE 100 25-AUG-11

106 VIJETA DHAKATE BALLARPUR 22 F O+VE 100 25-AUG-11

101 RAJESH RAO CHANDRAPUR 28 M O+ve 100 25-AUG-11

8 rows selected.

# 14) Display all distinct blood group type

SQL> SELECT DISTINCT BG FROM DONAR;

BG

-----

O+ve

A-VE

A+VE

O+VE

# 15) Update the age of all donars by 1

SQL> UPDATE DONAR SET AGE=AGE+1;

8 rows updated.

SQL> SELECT \* FROM DONAR;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. RAJESH RAO CHANDRAPUR 29 M O+ve 100 25-AUG-11
2. ANAND SHARMA NAGPUR 21 M O+VE 200 26-AUG-11
3. VISHAL DESHPANDE HYDERABAD 24 M O+VE 250 26-AUG-11
4. SHRUTI RAKHUNDE CHANDRAPUR 23 F A+VE 100 27-AUG-11
5. ANUSHREE DHAKATE 23 F A-VE 200 26-AUG-11
6. VIJETA DHAKATE BALLARPUR 23 F O+VE 100 25-AUG-11
7. AAMIR TAJA CHANDRAPUR 22 M O+VE 250 27-AUG-11
8. AMIR KHAN DURGAPUR 26 M O+VE 100 25-AUG-11

8 rows selected.

# 16) Mr. RAJESH RAO changed his name as RAMESH RAO and he is shifted to DURGAPUR. Note the above changes in the table

SQL> UPDATE DONAR SET DNAME='RAMESH RAO',CITY='DURGAPUR' WHERE DNO=101;

1 row updated.

SQL> SELECT \* FROM DONAR;

DNO DNAME CITY AGE SEX BG QUANTITY DOD

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

1. RAMESH RAO DURGAPUR 29 M O+ve 100 25-AUG-11
2. ANAND SHARMA NAGPUR 21 M O+VE 200 26-AUG-11
3. VISHAL DESHPANDE HYDERABAD 24 M O+VE 250 26-AUG-11
4. SHRUTI RAKHUNDE CHANDRAPUR 23 F A+VE 100 27-AUG-11
5. ANUSHREE DHAKATE 23 F A-VE 200 26-AUG-11
6. VIJETA DHAKATE BALLARPUR 23 F O+VE 100 25-AUG-11
7. AAMIR TAJA CHANDRAPUR 22 M O+VE 250 27-AUG-11 108 AMIR KHAN DURGAPUR 26 M O+VE 100 25-AUG-11

8 rows selected.

**17) Display certain name whose first name starts with letter “A” and ends with “D” irrespective of caseletter.**

SQL> select \* from donar where dname like'A%D';

no rows selected

# PL/SQL Programs

**1)Que: Write a PL/SQL block to accept the marks of 3 papers and display the result if student score more then 35 marks in each paper out of maximum marks 100 than declare pass otherwise fail. And specify the class depending upon following conditions:**

**Percentage Class**

**>=75 Distinction**

**>=60 First**

**>=45 Second**

**Otherwise Third.**

SQL>ED PL1

SET SERVEROUTPUT ON

SET VERIFY OFF

CLEAR SCREEN

DECLARE

PAPER1 INTEGER:=&PAPER1;

PAPER2 INTEGER:=&PAPER2;

PAPER3 INTEGER:=&PAPER3;

TOTALM INTEGER;

PER NUMBER(5,2);

CLASS CHAR(15);

BEGIN

IF(PAPER1>=35 AND PAPER2>=35 AND PAPER3>=35) THEN

DBMS\_OUTPUT.PUT\_LINE('PASS');

TOTALM:=PAPER1+PAPER2+PAPER3;

PER:=TOTALM/3;

IF(PER>=75) THEN

CLASS:='DISTINCTION';

ELSIF(PER>=60)THEN

CLASS:='FIRSTCLASS';

ELSIF(PER>=45)THEN

CLASS:='SECONDCLASS';

ELSE

CLASS:='THIRDCLASS';

END IF;

DBMS\_OUTPUT.PUT\_LINE('SCORED'|| PER||'%AND GOT'||CLASS);

ELSE

DBMS\_OUTPUT.PUT\_LINE('FAIL');

END IF;

END;

/

**OUTPUT:**

SQL>@ PL1

Enter value for paper1: 75

Enter value for paper2: 75

Enter value for paper3: 75

PASS

SCORED75%AND GOTDISTINCTION

PL/SQL procedure successfully completed

.

## 2)QUE:-/\*Write a PL/SQL block to find factorial of a number and store the number and its factorial in a table called FACT which contains two column namely number and result.\*/

SQL>ED PL2

SET SERVEROUTPUT ON

SET VERIFY OFF

CLEAR SCREEN

DECLARE

N INTEGER;

F NUMBER:=1;

BEGIN

N:=&N;

FOR I IN REVERSE 1..N

LOOP

F:=F\*I;

END LOOP;

DBMS\_OUTPUT.PUT\_LINE('FACTORIAL OF ' ||N|| ' IS ' ||F);

INSERT INTO FACT VALUES(N,F);

END;

/

**OUTPUT:-**

SQL>@PL2

Enter value for n: 5

FACTORIAL OF 5 IS 120

PL/SQL procedure successfully completed.

SQL> SELECT\* FROM FACT;

FNUMBER RESULT

---------------- ------------ 5 120

**Que: Write a PL/SQL block to check number is palindrome or not.**

SQL>ED PL3

SET SERVEROUTPUT ON

SET VERIFY OFF

CLEAR SCREEN

DECLARE

N NUMBER;

1. NUMBER;
2. NUMBER:=0;

TN NUMBER;

BEGIN

N:=&N;

TN:=N;

WHILE(N>0)

LOOP

R:=MOD(N,10);

S:=S\*10+R;

N:=FLOOR(N/10);

END LOOP;

DBMS\_OUTPUT.PUT\_LINE('REVERSE NUMBER IS '||S);

IF(TN=S) THEN

DBMS\_OUTPUT.PUT\_LINE('NUMBER '||TN||' IS PALINDROME'); ELSE

DBMS\_OUTPUT.PUT\_LINE('NUMBER '||TN||' IS NOT PALINDROME');

END IF;

END;

/

**OUTPUT:**

SQL>@ PL3

Enter value for n: 121

REVERSE NUMBER IS 121

NUMBER 121 IS PALINDROME

PL/SQL procedure successfully completed.

SQL>@ PL3

Enter value for n: 122

REVERSE NUMBER IS 122

NUMBER 122 IS NOT PALINDROME

PL/SQL procedure successfully completed.

**Que: Write a program to divide a number by character number. If any error occurs it should be handled properly and store the error number and its description in a table called ERRORH.**

SQL> create table ERRORH

1. (ERRNO NUMBER(10),
2. ERR\_DESC VARCHAR2(100));

Table created.

SQL> ED PL4

SET SERVEROUTPUT ON

SET VERIFY OFF

CLEAR SCREEN

DECLARE

* 1. NUMBER(6):=&A;
  2. CHAR(6):='&B';
  3. NUMBER(7);

TERRNO ERRORH.ERRNO%TYPE;

TERR\_DESC ERRORH.ERR\_DESC%TYPE;

BEGIN

C:=A/TO\_NUMBER(B);

DBMS\_OUTPUT.PUT\_LINE('DIVISION OF TWO NUMBER IS'||C);

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('ERROR:- '||SQLCODE);

DBMS\_OUTPUT.PUT\_LINE('DESCRIPTION OF ERROR'||SQLERRM);

TERRNO:=SQLCODE;

TERR\_DESC:=SUBSTR(SQLERRM,10);

INSERT INTO ERRORH VALUES(TERRNO,TERR\_DESC);

END;

/

**OUTPUT:**

SQL> @PL4

Enter value for a: 5

Enter value for b: Y

ERROR:- -6502

DESCRIPTION OF ERRORORA-06502: PL/SQL: numeric or value error: character to number conversion error

PL/SQL procedure successfully completed.

SQL> select \* from ERRORH;

ERRNO ERR\_DESC

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

-6502 : PL/SQL: numeric or value error: character to number conversion error

**Que: Write a PL/SQL block to accept and insert a valid data into the table**

**PATIENT, having following structure. Write an appropriate user defined exception.**

**PNAME VARCHAR(20)**

**AGE NUMBER(2)**

**PRESCRIPTION VARCHAR2(20)**

SQL>ED PL5

SET SERVEROUTPUT ON

SET VERIFY OFF

CLEAR SCREEN

DECLARE

TPNAME PATIENT.PNAME%TYPE;

TAGE PATIENT.AGE%TYPE;

TPRESCRIPTION PATIENT.PRESCRIPTION%TYPE;

CHECK\_CHAR EXCEPTION;

CHECK\_AGE EXCEPTION;

BEGIN

TPNAME:='&NAME';

IF TPNAME IS NULL THEN

RAISE CHECK\_CHAR;

END IF;

TAGE:=&AGE;

IF TAGE<=0 THEN

RAISE CHECK\_AGE;

ELSE

NULL;

END IF;

TPRESCRIPTION:='&PRESCRIPTION';

IF TPRESCRIPTION IS NULL THEN

RAISE CHECK\_CHAR;

END IF;

INSERT INTO PATIENT VALUES(TPNAME,TAGE,TPRESCRIPTION);

EXCEPTION

WHEN CHECK\_CHAR THEN

DBMS\_OUTPUT.PUT\_LINE('CAN NOT BE BLANK');

WHEN CHECK\_AGE THEN

DBMS\_OUTPUT.PUT\_LINE('AGE SHOULD BE > 0');

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('ERROR:-'||SQLCODE);

DBMS\_OUTPUT.PUT\_LINE('DESCRIPTION OF ERROR'||SQLERRM); END;

/

**OUTPUT:**

SQL>@PL5

Enter value for name: RAM

Enter value for age: 25

Enter value for prescription: CROCIN

PL/SQL procedure successfully completed.

SQL>@PL5

Enter value for name: RAJ

Enter value for age: -25

Enter value for prescription: DISPRIN

AGE SHOULD BE > 0

PL/SQL procedure successfully completed.

SQL>@PL5

Enter value for name: RAHUL

Enter value for age: 30 Enter value for prescription:

CAN NOT BE BLANK

PL/SQL procedure successfully completed.

SQL> SELECT \* FROM PATIENT;

PNAME AGE PRESCRIPTION

-------------------- ---------- -------------------- RAM 25 CROCIN

## 6) Que:-/\*Write a PL/SQL block to display first 2 records of table FRUITS which contain only one column called name.\*/

SQL> ED PL5

SET SERVEROUTPUT ON

SET VERIFY OFF

CLEAR SCREEN

DECLARE

CURSOR CFRUITS IS SELECT NAME FROM FRUITS;

CNAME VARCHAR2(20);

BEGIN

OPEN CFRUITS;

DBMS\_OUTPUT.PUT\_LINE('FRUITS ARE');

DBMS\_OUTPUT.PUT\_LINE('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*');

FOR I IN 1..2

LOOP

FETCH CFRUITS INTO CNAME;

DBMS\_OUTPUT.PUT\_LINE(CNAME);

END LOOP;

DBMS\_OUTPUT.PUT\_LINE('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*');

CLOSE CFRUITS;

EXCEPTION

WHEN CURSOR\_ALREADY\_OPEN THEN

DBMS\_OUTPUT.PUT\_LINE('CURSOR ALREADY OPEN');

END;

/

**OUTPUT:-**

SQL> SELECT\* FROM FRUITS;

NAME

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

APPLE

MANGO

ORANGE

SQL>@ PL5

FRUITS ARE

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

APPLE

MANGO

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PL/SQL procedure successfully completed.

**Que 7. Write a PL/SQL Program to Reverse the String**

DECLARE

-- declare variable str , len -- and str1 of datatype varchar str VARCHAR(20) := 'skeegrofskeeg';

len NUMBER;

str1 VARCHAR(20);

BEGIN

-- Here we find the length of string len := Length(str);

-- here we starting a loop from max len to 1

FOR i IN REVERSE 1.. len LOOP

-- assigning the reverse string in str1

str1 := str1

|| Substr(str, i, 1);

END LOOP;

dbms\_output.Put\_line('Reverse of string is '

|| str1);

END;

-- Program End

Result :-

Input: skeegrofskeeg

Output: geeksforgeeks

**8) Write a PL/SQL Program to convert each digit of the number into words**

DECLARE

num INTEGER;

num\_to\_word VARCHAR2(100); str VARCHAR2(100); len INTEGER; c INTEGER;

BEGIN num := 123456; len := Length(num);

dbms\_output.Put\_line('Entered Number is: '

||num);

FOR i IN 1..len LOOP

c := Substr(num, i, 1);

SELECT Decode(c, 0, 'Zero ',

1, 'One ',

2, 'Two ',

3, 'Three ',

4, 'Four ',

5, 'Five ',

6, 'Six ',

7, 'Seven ',

8, 'Eight ',

9, 'Nine ')

INTO str

FROM dual;

num\_to\_word := num\_to\_word

||str;

END LOOP;

dbms\_output.Put\_line('Number to words: '

||num\_to\_word);

END;

**Output :**

Entered Number is: 123456

Number to words: One Two Three Four Five Six