

## Assignment – 8

1. a) Create a table whose structure will be as follows:

**Table Name: Prime\_Entry**

**PL/SQL Code:**

```
set serveroutput on;
create table prime_entry(
    Num_id number(3) primary key,
    prime_num number(3) not null
);
```

```
create sequence seq
start with 1
increment by 1
/
```

**Output:**

```
SQL> @ "F:\BTech\DBMS LAB\Solved_A_8\a8a_b.sql";
```

```
Table created.
```

```
Sequence created.
```

```
SQL> desc prime_entry;
```

Name	Null?	Type
NUM_ID	NOT NULL	NUMBER(3)
PRIME_NUM	NOT NULL	NUMBER(3)

- b) Write a PL/SQL block of code that will take a number from user and test whether the number is prime or not. If the number is prime, then enter into above table by generating NUMID automatically.

**PL/SQL Code:**

```
set serveroutput on
declare
    num number;
    j number;
    i number;
    n number;
    flag number;
    g number;
begin
    num:=&n;
    n:=TRUNC(num/2);
    for i in 2..n
    loop
        if(mod(num,i)=0) then
            flag:=1;
            exit;
        else
            flag:=0;
        end if;
    end loop;
```

```

dbms_output.put_line('-----');
if(flag=1) then
    dbms_output.put_line(num || ' is not prime ');
else
    select seq.nextval into g from dual;
    insert into prime_entry values(g, num);
end if;
end;
/

```

**Output:**

```
SQL> select * from prime_entry;
```

NUM_ID	PRIME_NUM
1	5
2	7

**c) Now add a checking for same prime number entry. It will show – ‘Number already exists in database’ for same prime number entry. Write a function to test whether given number exist or not.**

**PL/SQL Code:**

```

set serveroutput on
create or replace function prime_test(id number) return number
is
num number(20);
begin
    select num_id into num from prime_entry where prime_num=id;
    return 1;
exception
    when no_data_found then
        return 0;

end;
/
declare
    num number;
    j number;
    i number;
    n number;
    flag number;
    x number;
begin
    num:=&n;
    n:=TRUNC(num/2);
    for i in 2..n
    loop
        if(mod(num,i)=0) then
            flag:=1;
            exit;
        else
            flag:=0;
        end if;
    end loop;
end;

```

```

    end loop;
dbms_output.put_line('-----');
if(flag=1) then
    dbms_output.put_line(num || 'is not prime number. ');
else
    x:=prime_test(num);
    if(x=0) then
        insert into prime_entry values(seq.nextval, num);
    else
        dbms_output.put_line('Already exist in table. ');
    end if;
end if;
end;
/

```

### Output:

```

SQL> @ "F:\BTech\DBMS LAB\Solved_A_8\8_1c.sql";

Function created.

Enter value for n: 11
old 9:      num:=&n;
new 9:      num:=11;
-----

PL/SQL procedure successfully completed.

SQL> select * from prime_entry;

  NUM_ID  PRIME_NUM
-----
      1         5
      2         7
      3        11

```

## 2. Create the following table:

**Table Name: Acc\_details, Transaction\_Acc**

**When a specific account will be deleted then all the transaction details from Transactions\_acc will be deleted for that account number.**

### SQL Query:

```

create table Acc_details(
    Acc_No varchar2(8) primary key,
    Name varchar2(20) not null,
    Address varchar2(50) not null,
    DOB date not null,
    sex char(1) check (sex in ('M', 'F')),
    contact_no number(10) not null,
    last_trans_date date not null,
    Total_cost number(14,2) not null,
    Acc_status char(1) not null check(Acc_status in ('A', 'I'))
);

create table Transaction_Acc(
    Transaction_Id number(8) primary key,
    Acc_No varchar2(8) references Acc_details on DELETE CASCADE,
    Deposit_amt number(12,4),
    Withdraw_amt number(12,4),
    Mode_trans char(5) not null,
    Check_no number(6) default 0,

```

Trans\_date date not null  
);

insert into Acc\_details values('001', 'AMIT', 'BK-256', '12-JAN-2012','M',9836773258,'13-JUN-2012',12000, 'A');

insert into Transaction\_Acc values(002, '001', 11000, 5000, 'A', 101, '12-JUN-2012');

delete from Acc\_details where Acc\_no='001';

### Output:

```
SQL> desc Acc_details;
Name                                         Null?    Type
-----
ACC_NO                                     NOT NULL VARCHAR2(8)
NAME                                       NOT NULL VARCHAR2(20)
ADDRESS                                   NOT NULL VARCHAR2(50)
DOB                                       NOT NULL DATE
SEX                                       NOT NULL CHAR(1)
CONTACT_NO                               NOT NULL NUMBER(10)
LAST_TRANS_DATE                           NOT NULL DATE
TOTAL_COST                               NOT NULL NUMBER(14,2)
ACC_STATUS                               NOT NULL CHAR(1)

SQL> desc Transaction_Acc;
Name                                         Null?    Type
-----
TRANSACTION_ID                             NOT NULL NUMBER(8)
ACC_NO                                     NOT NULL VARCHAR2(8)
DEPOSIT_AMT                               NOT NULL NUMBER(12,4)
WITHDRAW_AMT                             NOT NULL NUMBER(12,4)
MODE_TRANS                               NOT NULL CHAR(5)
CHECK_NO                                  NOT NULL NUMBER(6)
TRANS_DATE                                NOT NULL DATE

SQL> select * from Acc_details;
ACC_NO  NAME      ADDRESS      DOB      S CONTACT_NO LAST_TRAN TOTAL_COST A
-----
001     AMIT      BK-256      12-JAN-12 M 9836773258 13-JUN-12 12000 A

SQL> select * from Transaction_Acc;
TRANSACTION_ID ACC_NO  DEPOSIT_AMT WITHDRAW_AMT MODE_  CHECK_NO TRANS_DAT
-----
2 001          11000        5000 A          101 12-JUN-12

SQL> delete from Acc_details where Acc_no='001';

1 row deleted.

SQL> select * from Acc_details;

no rows selected

SQL> select * from Transaction_Acc;

no rows selected
```