

Database Management Systems (ITE1003)
Lab CAT I – January 2020

Slot: L33+L34

Class Number: 4375 (SET A)

18BIT0272

PRIYAL BHARDWAJ

```
SQL> show user  
USER is "EXAM034"
```

Consider the following relational database schema. The primary keys are underlined. The foreign key is self-explanatory. LOAN(Lno, Amount, Start_date, End_date, Borrower_name) PAYMENT(Payment_no, Loan_no, Amount, Payment_date)

1. Write down and test the necessary SQL statements for creating the above tables with necessary primary key and foreign key.

```
SQL> create table loan(  
  2  ln_no          number(10) primary key,  
  3  amount          number(10,2),  
  4  start_date      date,  
  5  end_date        date,  
  6  borrower_name   varchar(20)  
  7  );  
  
Table created.  
  
SQL> create table payment(  
  2  payment_no     number(5) primary key,  
  3  ln_no          references loan,  
  4  pay_amount      number(10,2),  
  5  payment_date    date  
  6  );  
  
Table created.
```

```
SQL> desc loan;  
Name                               Null?      Type  
-----  
LN_NO                              NOT NULL   NUMBER(10)  
AMOUNT                             NULL       NUMBER(10,2)  
START_DATE                         NULL       DATE  
END_DATE                           NULL       DATE  
BORROWER_NAME                      NULL       VARCHAR2(20)  
  
SQL> desc payment;  
Name                               Null?      Type  
-----  
PAYMENT_NO                         NOT NULL   NUMBER(5)  
LN_NO                              NOT NULL   NUMBER(10)  
PAY_AMOUNT                         NULL       NUMBER(10,2)  
PAYMENT_DATE                       NULL       DATE
```

2. Enter at least two rows interactively into each table and display the content of the tables.

```
SQL> insert into loan values(
  2  &ln_no,&amount,&start_date,&end_date,'&borrower_name');
Enter value for ln_no: 1928374650
Enter value for amount: 2600000.00
Enter value for start_date: to_date('27-01-2020','dd-mm-yyyy')
Enter value for end_date: to_date('29-01-2021','dd-mm-yyyy')
Enter value for borrower_name: Ramesh Chandra
old 2: &ln_no,&amount,&start_date,&end_date,'&borrower_name')
new 2: 1928374650,2600000.00,to_date('27-01-2020','dd-mm-yyyy'),to_date('29-01-2021','dd-mm-yyyy'),'Ramesh Chandra')

1 row created.

SQL> insert into loan values(
  2  &ln_no,&amount,&start_date,&end_date,'&borrower_name');
Enter value for ln_no: 5049382716
Enter value for amount: 23000.00
Enter value for start_date: to_date('05-04-2012','dd-mm-yyyy')
Enter value for end_date: to_date('06-05-2013','dd-mm-yyyy')
Enter value for borrower_name: Suraj Kushe
old 2: &ln_no,&amount,&start_date,&end_date,'&borrower_name')
new 2: 5049382716,23000.00,to_date('05-04-2012','dd-mm-yyyy'),to_date('06-05-2013','dd-mm-yyyy'),'Suraj Kushe')

1 row created.

SQL> insert into loan values(
  2  &ln_no,&amount,&start_date,&end_date,'&borrower_name');
Enter value for ln_no: 1234567809
Enter value for amount: 250000.99
Enter value for start_date: to_date('01-01-2011','dd-mm-yyyy')
Enter value for end_date: to_date('02-02-2013','dd-mm-yyyy')
Enter value for borrower_name: Unmesh Mishra
old 2: &ln_no,&amount,&start_date,&end_date,'&borrower_name')
new 2: 1234567809,250000.99,to_date('01-01-2011','dd-mm-yyyy'),to_date('02-02-2013','dd-mm-yyyy'),'Unmesh Mishra')

1 row created.
```

```
SQL> select * from loan;
```

LN_NO	AMOUNT	START_DAT	END_DATE	BORROWER_NAME
1928374650	2600000	27-JAN-20	29-JAN-21	Ramesh Chandra
5049382716	23000	05-APR-12	06-MAY-13	Suraj Kushe
1234567809	250000.99	01-JAN-11	02-FEB-13	Unmesh Mishra

```

SQL> insert into payment values(
  2  &payment_no,&ln_no,&pay_amount,&payment_date);
Enter value for payment_no: 12345
Enter value for ln_no: 5049382716
Enter value for pay_amount: 25000.00
Enter value for payment_date: to_date('05-06-2020','dd-mm-yyyy')
old 2: &payment_no,&ln_no,&pay_amount,&payment_date)
new 2: 12345,5049382716,25000.00,to_date('05-06-2020','dd-mm-yyyy'))

1 row created.

SQL> insert into payment values(
  2  &payment_no,&ln_no,&pay_amount,&payment_date);
Enter value for payment_no: 45231
Enter value for ln_no: 1928374650
Enter value for pay_amount: 2700000.00
Enter value for payment_date: to_date('25-01-2021','dd-mm-yyyy')
old 2: &payment_no,&ln_no,&pay_amount,&payment_date)
new 2: 45231,1928374650,2700000.00,to_date('25-01-2021','dd-mm-yyyy'))

1 row created.

```

```

SQL> select * from payment;

PAYMENT_NO      LN_NO PAY_AMOUNT PAYMENT_D
-----
      12345 5049382716      25000 05-JUN-20
      45231 1928374650 27000000 25-JAN-21

```

3. Implement SQL statement for the following queries.

(a) Display information of loans with start date after 4 th April 2012.

```

SQL> select * from loan where start_date>to_date('04-04-2012','dd-mm-yyyy');

      LN_NO      AMOUNT START_DAT END_DATE  BORROWER_NAME
-----
1928374650    2600000 27-JAN-20 29-JAN-21 Ramesh Chandra
5049382716      23000 05-APR-12 06-MAY-13 Suraj Kushe

```

(b) Display payment information with payment amount between 20000 and 30000.

```

SQL> select * from payment where pay_amount between 20000.00 and 30000.00;

PAYMENT_NO      LN_NO PAY_AMOUNT PAYMENT_D
-----
      12345 5049382716      25000 05-JUN-20

```

(c) Display loan number and loan start date in ascending order of loan number.

```
SQL> select ln_no, start_date from loan order by ln_no;
```

LN_NO	START_DAT
1234567809	01-JAN-11
1928374650	27-JAN-20
5049382716	05-APR-12

(d) Display information about loans with borrower name ending with an 'e'

```
SQL> select * from loan where borrower_name like '%e';
```

LN_NO	AMOUNT	START_DAT	END_DATE	BORROWER_NAME
5049382716	23000	05-APR-12	06-MAY-13	Suraj Kushe

USER COMMAND:

```
/*
```

```
Q1
```

```
*/
```

```
create table loan(
ln_no      number(10) primary key,
amount     number(10,2),
start_date date,
end_date   date,
borrower_name varchar(20)
);
```

```
desc loan;
```

```
create table payment(
payment_no  number(5) primary key,
ln_no      references loan,
pay_amount  number(10,2),
payment_date date
);
```

```
desc payment;
```

```
/*
```

```
Q2
```

```
*/
```

```
insert into loan values(
&ln_no,&amount,&start_date,&end_date,&borrower_name);
```

```
insert into loan values(
&ln_no,&amount,&start_date,&end_date,&borrower_name);
```

```
insert into loan values(
&ln_no,&amount,&start_date,&end_date,&borrower_name);
```

```
select * from loan;
```

```
insert into payment values(
&payment_no,&ln_no,&pay_amount,&payment_date);
```

```
insert into payment values(
&payment_no,&ln_no,&pay_amount,&payment_date);
```

```
select * from payment;
```

```
/*
Q3(a)
*/
```

```
select * from loan where start_date>to_date('04-04-2012','dd-mm-yyyy');
```

```
/*
Q3(b)
*/
```

```
select * from payment where pay_amount between 20000.00 and 30000.00;
```

```
/*
Q3(c)
*/
```

```
select ln_no, start_date from loan order by ln_no;
```

```
/*
Q3(d)
*/
```

```
select * from loan where borrower_name like '%e';
```