Database Management System Lab
(DBMSL)Programs – TE (AI&DS)

1. **SQL Queries:**
--- Design and Develop SQL DDL statements which demonstrate the use of SQL objects such as Table,
View, Index, Sequence, Synonym, different constraints etc.
---Write at least 10 SQL queries on the suitable database application using SQL DML statements.

2. **SQL Queries – all types of Join, Sub-Query and View:**
Write at least10 SQL queries for suitable database application using SQL DML statements. Note: Instructor
will design the queries which demonstrate the use of concepts like all types of Join ,Sub-Query and View

3. Unnamed PL/SQLcode block: Use of Control structure and Exception handling is mandatory.
Suggested Problem statement:
Consider Tables:
1. Borrower (Roll_no, Name, Date_of_Issue, Name_of_Book, Status)
2. Fine (Roll_no, Date, Amt)
· Accept Roll_no and Name_of_Book from user.
· Check the number of days (from Date_of_Issue).
· If days are between 15 to 30 then fine amount will be Rs 5per day.
· If no. of days>30, per day fine will be Rs 50 per day and for days less than 30, Rs. 5 per day.
· After submitting the book, status will change from I to R.
· If condition of fine is true, then details will be stored into fine table.
· Also handles the exception by named exception handler or user define exception handler

4. Database Connectivity:
Write a program to implement MySQL/Oracle database connectivity with any front end language to
implement Database navigation operations (add, delete, edit etc.)

5. MongoDB Queries:

Design and Develop MongoDB Queries using CRUD operations. (Use CRUD operations, SAVE method,
logical operators etc.).

6. Cursors: (All types: Implicit, Explicit, Cursor FOR Loop, Parameterized Cursor)

Write a PL/SQL block of code using parameterized Cursor that will merge the data available in the newly
created table N_Roll_Call with the data available in the table O_Roll_Call. If the data in the first table
already exists in the second table then that data should be skipped.
Note: Instructor will frame the problem statement for writing PL/SQL block using all types of Cursors in
line with above statement.

---------------------------ASSIGNMENT NO 1A---------------------------------------

TITLE: Design and Develop SQL DDL statements which demonstrate theuse of SQL objects such as Table, View, Index, Sequence, Synonym

---

```
mysql> use Abhi;

Database changed

mysql> show

tables;Empty set

(0.02 sec)


mysql> create table client_master(client_no int,client_name
varchar(20),address varchar(50),city varchar(10),pincode
int,state varchar(20), bal_due float,primary key(client_no));

Query OK, 0 rows affected (0.51 sec)
```

```
mysql> select * from

client_master;Empty set (0.02

sec)


mysql> insert into client_master
values('001','abhi','nasik','nasik','422004','MH','5000');

Query OK, 1 row affected (0.14 sec)


mysql> insert into client_master
values('002','piyu','nasik','nasik','422004','MH','10000');

Query OK, 1 row affected (0.09 sec)


mysql> insert into client_master
values('003','abd','nasik','nasik','422003','MH','5000');

Query OK, 1 row affected (0.06 sec)


mysql> insert into client_master
values('004','abd','nasik','nasik','422003','MH','5000');

Query OK, 1 row affected (0.05 sec)


mysql> insert into client_master
values('005','abc','nasik','nasik','422003','MH','5000');

Query OK, 1 row affected (0.06 sec)


mysql> select * from client_master;

+           +              +         +       +          +
+         +

| client_no | client_name | address | city  | pincode | state
| bal_due |

+           +              +         +       +          +
|          1 |  | abhi        | nasik    |  Nasik |   422004 | MH
|     5000 |
|          2 |  | piyu        | nasik    |  Nasik |   422004 | MH
|    10000 |
|          3    | abd        | nasik    |   Nasik |    422003 | MH
|     5000 |
|          4    | abd        | nasik    |   Nasik |    422003 | MH
|     5000 |
|          5    | abc        | nasik    |   Nasik |    422003 | MH
|     5000 |

 +         +













 +            +             +         +       +         +
 +         +

 • rows in set (0.00 sec)


 mysql> select client_name,client_no from client_master;

 +              +            +

 | client_name | client_no |

 | abhi        |          1 |
 | piyu        |          2 |
 | abd         |          3 |
 | abd         |          4 |
 | abc         |          5 |


 +              +            +

 +              +            +
 • rows in set (0.00 sec)


 mysql> insert into client_master
 values('006','xyz','nasik','nasik','422004','MH','6000');

 Query OK, 1 row affected (0.15 sec)


 mysql> select client_name,client_no from client_master;

 +              +            +

 | client_name | client_no |

 | abhi        |          1 |
 | piyu        |          2 |
 | abd         |          3 |
 | abd         |          4 |
 | abc         |          5 |
 | xyz         |          6 |
 +              +            +



 +              +            +
```

```
• rows in set (0.08 sec)


mysql> create table product_master(product_no int,description
varchar(20),profit_per float,unit_measure varchar(10),quantity
int,reorder int,sell_price float,cost_price float,primary
key(product_no));

Query OK, 0 rows affected (0.77 sec)
```

```
mysql> insert into product_master
values('001','shampoo','1','one','4','2','10','15');

Query OK, 1 row affected (0.17 sec)


mysql> insert into product_master
values('002','oil','13','one','4','2','11','16');

Query OK, 1 row affected (0.06 sec)

mysql> alter table client_master add telephone_no int;

Query OK, 0 rows affected (1.04 sec)

Records: 0  Duplicates: 0  Warnings: 0


mysql> select * from client_master;

+           +             +         +       +         +
+         +             +

| client_no | client_name | address | city  | pincode | state
| bal_due | telephone_no |

+           +             +         +       +         +

|        1   | abhi          | nasik   |  Nasik |   422004 | MH
|    5000 |               NULL |
|        2   | piyu          | nasik   |  Nasik |   422004 | MH
|   10000 |               NULL |
|        3   | abd           | nasik   |  Nasik |   422003 | MH
|    5000 |               NULL |
|        4   | abd           | nasik   |  Nasik |   422003 | MH
|    5000 |               NULL |
|        5   | abc           | nasik   |  Nasik |   422003 | MH
|    5000 |               NULL |
|        6   | xyz           | nasik   |  Nasik |   422004 | MH
|    6000 |               NULL |

+         +             +
+            +              +          +       +         +
+         +              +

6 rows in set (0.00 sec)


mysql> select * from product_master;

+             +             +            +
+          +         +            +            +

| product_no | description | profit_per | unit_measure |
quantity | reorder | sell_price | cost_price |

+             +             +            +

 |          1 | shampoo     |           1 | one                |
4 |        2 |          10 |                 15 |

+          +         +            +            +

|          2 | oil         |           13 | one               |
4 |        2 |        11 |          16 |

+             +             +            +
+          +         +            +            +

2 rows in set (0.00 sec)


mysql> create index client_search on client_master(client_no);

Query OK, 0 rows affected (0.42 sec)

Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> create table auto(roll_no int NOT NULL
AUTO_INCREMENT,name varchar(20),primary key(roll_no));
Query OK, 0 rows affected (0.36 sec)

mysql> select * from
auto;Empty set (0.01
sec)

mysql> insert into auto
values('1','abc');Query OK, 1 row
affected (0.07 sec)

mysql> insert into auto
values('2','adc');Query OK, 1 row
affected (0.08 sec)

mysql> alter table auto auto_increment=100;
Query OK, 0 rows affected (0.07 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from auto;
+         +      +
| roll_no | name |
|       1 | abc  |
|       2 | adc  |

+         +      +

+         +      +
• rows in set (0.00 sec)
```

```
mysql> insert into auto values(null,'abd');
Query OK, 1 row affected (0.05 sec)

mysql> select * from auto;
+          +       +
| roll_no | name |
 |        1  |  Abc  |
 |        2  |  Adc  |
|       100 |   Abd  |
+           +        +

+          +       +
```

• rows in set (0.00 sec)

```
mysql> insert into auto values(null,'reh');
Query OK, 1 row affected (0.06 sec)

mysql> select * from auto;
+          +       +
| roll_no | name |
 |        1  |  Abc  |
 |        2  |  Adc  |
 |      100  |  Abd  |
|       101 |   Reh  |
+          +      +

+         +      +

• rows in set (0.00 sec)

mysql> update client_master set client_name="nut"
whereclient_no='4';

Query OK, 1 row affected (0.09 sec)

Rows matched: 1  Changed: 1  Warnings:

0

mysql> select * from client_master;

+           +             +         +       +         +
+         +             +

| client_no | client_name | address | city  | pincode | state
| bal_due | telephone_no |

+           +             +         +       +         +
|        1    | abhi        | nasik   |  Nasik |  422004 | MH
|     5000 |         NULL |
|        2    | piyu        | nasik   |  Nasik |  422004 | MH
|    10000 |         NULL |
|        3    | abd         | nasik   |  Nasik |  422003 | MH
|     5000 |         NULL |
|        4    | nut         | nasik   |  Nasik |  422003 | MH
|     5000 |         NULL |
|        5    | abc         | nasik   |  Nasik |  422003 | MH
|     5000 |         NULL |
|          6    | xyz            | nasik   |  Nasik |   422004 | MH
|    6000 |          NULL |

+         +              +

+           +             +         +       +         +
+         +              +

6 rows in set (0.00 sec)


mysql> create index client_find on
client_master(client_name,city);      Query OK, 0
rowsaffected (0.41 sec)

Records: 0  Duplicates: 0  Warnings: 0


mysql> show tables;

+               +

| Tables_in_Abhi |

+               +

| auto           |

| client_master  |

| product_master |

+               +
3 rows in set (0.08 sec)

mysql> select * from product_master;
+            +              +            +
+          +         +            +            +
| product_no | description | profit_per | unit_measure |
quantity | reorder | sell_price | cost_price |
+            +              +            +
|          1 | shampoo    |            1 | one          |
4 |        2 |         10 |           15 |
|          2 | oil        |           13 | one          |
4 |        2 |         11 |           16 |
+          +         +            +            +



+            +              +            +
+          +         +            +            +
2 rows in set (0.00 sec)

mysql> desc product_master;
+              +             +      +     +         +       +
| Field        | Type        | Null | Key | Default | Extra |
+              +             +      +     +         +       +
| product_no   | int(11)     | NO   | PRI | NULL    |       |
| Description  | varchar(20) | YES  |     | NULL    |       |
| profit_per   | float       | YES  |     | NULL    |       |
| unit_measure | varchar(10) | YES  |     | NULL    |       |
| Quantity     | int(11)     | YES  |     | NULL    |       |
| Reorder      | int(11)     | YES  |     | NULL    |       |
| sell_price   | float       | YES  |     | NULL    |       |
| cost_price   | float       | YES  |     | NULL    |       |
+              +             +      +     +         +       +
8 rows in set (0.05 sec)

mysql> alter table client_master rename to c_master;
Query OK, 0 rows affected (0.25 sec)

mysql> insert into product_master
values('003','nutela','15','three','40','5','110','123');
Query OK, 1 row affected (0.05 sec)

mysql> alter table product_master modify sell_price
float(10,2);
Query OK, 0 rows affected (0.06 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc product_master;
+              +             +      +     +         +       +
| Field        | Type        | Null | Key | Default | Extra |
+              +             +      +     +         +       +
| product_no   | int(11)     | NO   | PRI | NULL    |       |
| Description  | varchar(20) | YES  |     | NULL    |       |
| profit_per   | float       | YES  |     | NULL    |       |
| unit_measure | varchar(10) | YES  |     | NULL    |       |
| Quantity     | int(11)     | YES  |     | NULL    |       |
| Reorder      | int(11)     | YES  |     | NULL    |       |
| sell_price   | float(10,2) | YES  |     | NULL    |       |
| cost_price   | float       | YES  |     | NULL    |       |
+              +             +      +     +         +       +
8 rows in set (0.00 sec)

mysql> create view client as select client_no,client_name from
c_master;

Query OK, 0 rows affected (0.05 sec)


mysql> select * from client;

+            +              +

| client_no | client_name |
|          5 |  abc         |
|          3 |  abd         |
|          1 |  abhi        |
|          4 |  Nut         |
|          2 |  Piyu        |
|          6 |  Xyz         |
+            +              +


+            +              +




6 rows in set (0.23 sec)


mysql>
```

---------------------------ASSIGNMENT NO. -1B--------------------------

TITLE: Design at least 10 SQL queries for suitable database application using SQL DML statements: Insert, Select, Update, Delete with operators,functions, and set operator.

```
mysql> show databases;

+                    +

| Database           |

+                    +

| information_schema |

| A                  |

| Abhi               |

| PVG                |

| RENUKA             |

| mysql              |

| nishant            |

| performance_schema |

| renuka             |

| sys                |

| time               |

+                    +

11 rows in set (0.11 sec)


mysql> use Abhi;

Reading table information for completion of table and column
names

You can turn off this feature to get a quicker startup with -A


Database changed

mysql> create table Employee(emp_no int,emp_name
varchar(20),date date,position varchar(20));
```

```
Query OK, 0 rows affected (0.75 sec)


mysql> alter table Employee add salary int;

Query OK, 0 rows affected (0.68 sec)

Records: 0  Duplicates: 0  Warnings: 0


mysql> insert into Employee values('01','abc','2018-
07-11','clerk','50000');

Query OK, 1 row affected (0.08 sec)


mysql> insert into Employee values('02','abhi','2018-05-
11','ceo','150000');

Query OK, 1 row affected (0.08 sec)


mysql> insert into Employee values('03','xyz','2018-
05-21','hr','100000');

Query OK, 1 row affected (0.04 sec)


mysql> insert into Employee values('04','aqwgy','2018-06-
21','te','10000');

Query OK, 1 row affected (0.03 sec)


mysql> insert into Employee values('05','sfhjfh','2018-07-
21','gt','12000');

Query OK, 1 row affected (0.03 sec)


mysql> create table TE(emp_no int,emp_name
varchar(20),join_date date,position varchar(20),salary
int);

Query OK, 0 rows affected (0.36 sec)
```

```
mysql> insert into TE values('01','abc','2018-07-
11','clerk','50000');Query OK, 1 row affected (0.03 sec)


mysql> insert into TE values('02','abhi','2018-05-
11','ceo','150000');    Query OK, 1 row affected (0.04
sec)


mysql> insert into TE values('03','xyz','2018-05-
21','hr','100000');    Query OK, 1 row affected (0.04
sec)


mysql> insert into TE values('04','aqwgy','2018-06-
21','te','10000');    Query OK, 1 row affected (0.05
sec)


mysql> insert into TE values('05','sfhjfh','2018-07-
21','gt','12000');    Query OK, 1 row affected (0.04
sec)


mysql> select * from TE;

+        +          +            +          +        +

| emp_no | emp_name | join_date  | position | salary |

+        +          +            +          +        +

|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |

|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |

|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |

|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |

|      5 | sfhjfh   | 2018-07-21 | Gt       |  12000 |

+        +          +            +          +        +

5 rows in set (0.04 sec)


mysql> select * from Employee;

+        +          +            +          +        +
| emp_no | emp_name | date       | position | salary |
+        +          +            +          +        +
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |
|      5 | sfhjfh   | 2018-07-21 | Gt       |  12000 |
+        +          +            +          +        +
5 rows in set (0.00 sec)

mysql> update TE set emp_name='gjgj' where emp_no='5';
Query OK, 1 row affected (0.13 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from TE;
+        +          +            +          +        +
| emp_no | emp_name | join_date  | position | salary |
+        +          +            +          +        +
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |
|      5 | Gjgj     | 2018-07-21 | Gt       |  12000 |
+        +          +            +          +        +
• rows in set (0.00 sec)

mysql> select * from Employee union select * from TE;
+        +          +            +          +        +
| emp_no | emp_name | date       | position | salary |
+        +          +            +          +        +
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |
|      5 | sfhjfh   | 2018-07-21 | Gt       |  12000 |
|      5 | Gjgj     | 2018-07-21 | Gt       |  12000 |
+        +          +            +          +        +
• rows in set (0.01 sec)

mysql> select * from Employee union all select * from TE;
+        +          +            +          +        +
| emp_no | emp_name | date       | position | salary |
+        +          +            +          +        +
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |
|      5 | sfhjfh   | 2018-07-21 | Gt       |  12000 |
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |
|      5 | Gjgj     | 2018-07-21 | Gt       |  12000 |
+        +          +            +          +        +
10 rows in set (0.00 sec)

mysql> select distinct emp_no from Employee where emp_no
in(select emp_no from TE);
+        +
| emp_no |

|      1 |
|      2 |
|      3 |
|      4 |
|      5 |
+        +

+        +

5 rows in set (0.03 sec)

mysql> select * from Employee;
+        +          +            +          +        +
| emp_no | emp_name | date       | position | salary |
+        +          +            +          +        +
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |
|      5 | sfhjfh   | 2018-07-21 | Gt       |  12000 |
+        +          +            +          +        +
5 rows in set (0.00 sec)

mysql> select * from TE;
```

```
+        +          +            +          +        +
| emp_no | emp_name | join_date  | position | salary |
+        +          +            +          +        +
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |
|      5 | Gjgj     | 2018-07-21 | Gt       |  12000 |
+        +          +            +          +        +
5 rows in set (0.00 sec)


mysql> select distinct emp_name from Employee where emp_name
in(select emp_name from TE);
+          +
| emp_name |
+          +
| abc      |
| abhi     |
| xyz      |
| aqwgy    |
+          +
• rows in set (0.00 sec)

mysql> select * from Employee;
+        +          +            +          +        +
| emp_no | emp_name | date       | position | salary |
+        +          +            +          +        +
|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |
|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |
|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |
|      4 | Aqwgy    | 2018-06-21 | Te        |  10000 |

|      5 | sfhjfh   | 2018-07-21 | Gt        |  12000 |

+        +          +            +          +        +

• rows in set (0.00 sec)


mysql> select * from TE;

+        +          +            +          +        +

| emp_no | emp_name | join_date  | position | salary |

+        +          +            +          +        +

|      1 | Abc      | 2018-07-11 | Clerk    |  50000 |

|      2 | Abhi     | 2018-05-11 | Ceo      | 150000 |

|      3 | Xyz      | 2018-05-21 | Hr       | 100000 |

|      4 | Aqwgy    | 2018-06-21 | Te       |  10000 |

|      5 | Gjgj     | 2018-07-21 | Gt       |  12000 |

+        +          +            +          +        +

5 rows in set (0.00 sec)


mysql> select distinct emp_name from Employee where emp_name
in(select emp_name from TE);

+          +

| emp_name |

+          +

| abc      |

| abhi     |

| xyz      |

| aqwgy    |

+          +

4 rows in set (0.00 sec)
```

```
mysql> select min(salary) from Employee;
+             +
| min(salary) |
+             +
|       10000 |
+             +
1 row in set (0.04 sec)

mysql> select max(salary) from Employee;
+             +
| max(salary) |
+             +
|      150000 |
+             +
1 row in set (0.00 sec)

mysql> select sum(salary) from Employee;
+             +
| sum(salary) |
+             +
|      322000 |
+             +
1 row in set (0.00 sec)

mysql> select avg(salary) from Employee;
+             +
| avg(salary) |
+             +
|  64400.0000 |
+              +
1 row in set (0.00 sec)

mysql> select count(salary) from Employee;
+               +
| count(salary) |
+               +
|             5 |
+               +
1 row in set (0.00 sec)

mysql> select lcase(emp_no) from Employee;
+               +
| lcase(emp_no) |
| 1             |
| 2             |
| 3             |
| 4             |
| 5             |
+               +

+               +

5 rows in set (0.00 sec)
```

```
mysql> select ucase(emp_no) from Employee;
+                +
| ucase(emp_no) |

| 1              |
| 2              |
| 3              |
| 4              |

+                +
| 5              |
+                +
5 rows in set (0.00 sec)

mysql> select lcase(salary) from Employee;
+                +
| lcase(salary) |

| 50000          |
| 150000         |
| 100000         |
| 10000          |
| 12000          |

+                +




+                +
5 rows in set (0.00 sec)

mysql> select mid(emp_no,1,3) from Employee;
+                  +
| mid(emp_no,1,3) |

 | 1               |
 | 2               |
 | 3               |
 | 4               |
| 5                |
+                    +

+                  +
```

```
5 rows in set (0.01 sec)

mysql> select mid(emp_no,1,3) from Employee;
+                  +
| mid(emp_no,1,3) |
+                  +
 | 1               |
 | 2               |
 | 3               |
 | 4               |
 | 5               |
+                  +

5 rows in set (0.00 sec)


mysql> select mid(emp_no,1,5) from Employee;

+                  +

| mid(emp_no,1,5) |

| 1                |
| 2                |
| 3                |
| 4                |
| 5                |


+                  +




+                  +

5 rows in set (0.00 sec)


mysql> select mid(salary,1,3) from Employee;

+                  +

| mid(salary,1,3) |

| 500              |
| 150              |
| 100              |
| 100              |
| 120              |
+                  +

+                  +
5 rows in set (0.00 sec)

mysql> select mid(salary,1,5) from Employee;
+                  +
| mid(salary,1,5) |

| 50000           |
| 15000           |
| 10000           |
| 10000           |
| 12000           |

+                  +

+                  +
5 rows in set (0.00 sec)

mysql> select mid(emp_no,1,2) from Employee;
+                  +
| mid(emp_no,1,2) |

| 1               |
| 2               |
| 3               |
| 4               |
| 5               |

+                 +

+                 +

5 rows in set (0.00 sec)

mysql>
```

---------------------------ASSIGNMENT NO. 2----------------------------------

TITLE: Design at least 10 SQL queries for suitable database application using SQL DML statements: all types of Join, Sub-Query and View.

--

```
mysql> show databases;
+                    +
| Database           |
+                    +
| information_schema |
| A                  |
| Abhi               |
| COMPUTER           |
| H                  |
| PVG                |
| RENUKA             |
| mysql              |
| nishant            |
| nishantl           |
| performance_schema |
| renuka             |
| sys                |
| time               |
+                    +
14 rows in set (0.21 sec)


mysql> use Abhi;
Reading table information for completion of table and column
names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show
tables;
+                +
| Tables_in_Abhi |
+                +
| Employee       |
| TE             |
| auto           |
| c_master       |
| product_master |
+                +
5 rows in set (0.00 sec)


mysql> create table _master(product_no int,description
varchar(20),profit_per float,unit_measure varchar(10),quantity
int,reorder int,sell_price float,cost_price float,primary
key(product_no));

Query OK, 0 rows affected (0.55 sec)


mysql> create table customer(cust_no int,cust_name
varchar(20),cust_add varchar(20),phone_no int,primary
key(cust_no));

Query OK, 0 rows affected (0.28 sec)


mysql> create table capital(cap_no int,cap_name
varchar(20),state_no int,primary key(cap_no));

Query OK, 0 rows affected (0.27 sec)


mysql> create table state(state_no int,state_name
varchar(20),state_code int,capital varchar(20),primary
key(state_no));

Query OK, 0 rows affected (0.28 sec)


mysql> insert into capital values('01','MH','01');

Query OK, 1 row affected (0.12 sec)



mysql> insert into capital values('02','RAJ','02');

Query OK, 1 row affected (0.04 sec)


mysql> insert into capital values('03','GOA','03');

Query OK, 1 row affected (0.05 sec)
```

```
mysql> insert into capital values('04','GUJ','04');

Query OK, 1 row affected (0.05 sec)


mysql> insert into capital values('05','KAR','05');

Query OK, 1 row affected (0.04 sec)


mysql> insert into state values('01','MH','01','MUM');

Query OK, 1 row affected (0.03 sec)


mysql> insert into state

values('02','RAJ','02','JAI');Query OK, 1 row affected

(0.03 sec)


mysql> insert into state

values('03','GOA','03','PAN');Query OK, 1 row affected

(0.04 sec)


mysql> insert into state

values('04','GUJ','04','SUR');Query OK, 1 row affected

(0.04 sec)


mysql> insert into state

values('05','KAR','05','BAN');Query OK, 1 row affected

(0.03 sec)


mysql> select * from capital;

+        +          +          +

| cap_no | cap_name | state_no |

+        +          +          +

|      1 || MH       |        1 ||
|        2 | RAJ        |       2 |
|        3 | GOA        |       3 |
|        4 | GUJ        |       4 |
|        5 | KAR        |       5 |
+         +            +          +

5 rows in set (0.01 sec)


mysql> select * from state;

+          +            +            +         +

| state_no | state_name | state_code | capital |

|        1 | MH         |          1 | MUM     |
|        2 | RAJ        |          2 | JAI     |
|        3 | GOA        |          3 | PAN     |
|        4 | GUJ        |          4 | SUR     |
|        5 | KAR        |          5 | BAN     |
+          +            +            +         +


+          +            +            +         +









5 rows in set (0.00 sec)


mysql> select capital.cap_no, state.state_no from capital
inner join state on capital.cap_no=state.state_no;

+        +          +

| cap_no | state_no |
  |       1  |          1 |
  |       2  |          2 |
  |       3  |          3 |
  |       4  |          4 |
 |        5 |           5 |
 +          +              +

  +         +          +

5 rows in set (0.06 sec)

mysql> UPDATE state SET state_no="78" where state_no='1';
Query OK, 1 row affected (0.04 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE state SET state_no="58" where state_no='2';
Query OK, 1 row affected (0.04 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE state SET state_no="46" where state_no='3';
Query OK, 1 row affected (0.03 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE state SET state_no="489" where state_no='4';
Query OK, 1 row affected (0.05 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE state SET state_no="458" where state_no='5';
Query OK, 1 row affected (0.03 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> insert into state values('05','MP','05','BHO');
Query OK, 1 row affected (0.03 sec)

mysql> select capital.cap_no, state.state_no from capital
inner join state on capital.cap_no=state.state_no;
+        +          +
| cap_no | state_no |
+        +          +
|      5 |        5 |
+        +          +
1 row in set (0.00 sec)

mysql> select capital.cap_no, state.state_no from capital left
join state on capital.cap_no=state.state_no;
+        +          +
| cap_no | state_no |
|      1 |     NULL |
|      2 |     NULL |
|      3 |     NULL |
|      4 |     NULL |
|      5 |        5 |
+        +          +

+        +          +
5 rows in set (0.00 sec)


mysql> select capital.cap_no, state.state_no from capital left
join state on capital.cap_no=state.state_name;

+        +          +

| cap_no | state_no |

|      1 |     NULL |
|      2 |     NULL |
|      3 |     NULL |
|      4 |     NULL |
|      5 |     NULL |
+        +          +


+        +          +
```

```
• rows in set, 20 warnings (0.00 sec)


mysql> select capital.cap_no, state.state_no from capital
right join state on capital.cap_no=state.state_no;

+        +          +

| cap_no | state_no |
+        +          +
|      5 |          5 |
|   NULL |         46 |
|   NULL |         58 |
|   NULL |         78 |
|   NULL |        458 |
|   NULL |        489 |
+        +          +
```

- rows in set (0.00 sec)

```
mysql> select * from capital;
+        +          +          +
| cap_no | cap_name | state_no |
|      1 | MH       |        1 |
|      2 | RAJ      |        2 |
|      3 | GOA      |        3 |
|      4 | GUJ      |        4 |
|      5 | KAR      |        5 |
+        +          +          +

+        +          +          +
```

- rows in set (0.00 sec)

```
mysql> select * from state;
+          +            +            +         +
| state_no | state_name | state_code | capital |
|        5 |  MP        |          5 | BHO     |
|       46 |  GOA       |          3 | PAN     |
|       58 |  RAJ       |          2 | JAI     |
|       78 |  MH        |          1 | MUM     |
|      458 |  KAR       |          5 | BAN     |
|      489 |  GUJ       |          4 | SUR     |
+          +            +            +         +

+          +            +            +         +
```

```
• rows in set (0.00 sec)

mysql> select * from capital;
+        +          +          +
| cap_no | cap_name | state_no |
|      1 |  MH      |        1 |
|      2 |  RAJ     |        2 |
|      3 |  GOA     |        3 |
|      4 |  GUJ     |        4 |
|      5 |  KAR     |        5 |
+        +          +          +

+        +          +          +
5 rows in set (0.00 sec)


mysql> select capital.cap_no, state.state_no from capital
inner join state on capital.cap_no=state.state_no

    -> ;

+        +          +

| cap_no | state_no |

+        +          +

|      5 |        5 |

+        +          +

1 row in set (0.00 sec)


mysql> select
capital.cap_no,capital.cap_name,state.capital,state.state_n
ofrom capital inner join state on
capital.cap_no=state.state_no;

+        +          +         +          +

| cap_no | cap_name | capital | state_no |

+        +          +         +          +

|      5 | KAR      | BHO     |        5 |

+        +          +         +          +

1 row in set (0.00 sec)


mysql> select
capital.cap_no,capital.cap_name,state.capital,state.state_no
from capital left join state on capital.cap_no=state.state_no;
```

```
+        +          +         +          +
| cap_no | cap_name | capital | state_no |
|      1 | MH       | NULL    |     NULL |
|      2 | RAJ      | NULL    |     NULL |
|      3 | GOA      | NULL    |     NULL |
|      4 | GUJ      | NULL    |     NULL |
|      5 | KAR      | BHO     |        5 |
+        +          +         +          +

+        +          +         +          +
```

- rows in set (0.00 sec)

```
mysql> select
capital.cap_no,capital.cap_name,state.capital,state.state_n
ofrom capital right join state on
capital.cap_no=state.state_no;
+        +          +         +          +
| cap_no | cap_name | capital | state_no |
|      5 | KAR      | BHO     |        5 |
|   NULL | NULL     | PAN     |       46 |
|   NULL | NULL     | JAI     |       58 |
|   NULL | NULL     | MUM     |       78 |
|   NULL | NULL     | BAN     |      458 |
|   NULL | NULL     | SUR     |      489 |
+        +          +         +          +
+        +          +         +          +
```

- rows in set (0.00 sec)

```
mysql> select
capital.cap_no,capital.cap_name,state.capital,state.state_n
ofrom capital left join state on
capital.cap_no=state.state_nounion select

capital.cap_no,capital.cap_name,state.capital,state.state_n
ofrom capital right join state on
capital.cap_no=state.state_no;

+        +          +         +          +

| cap_no | cap_name | capital | state_no |

|      1 |  MH      |  NULL   |     NULL |
|      2 |  RAJ     |  NULL   |     NULL |
|      3 |  GOA     |  NULL   |     NULL |
|      4 |  GUJ     |  NULL   |     NULL |
|      5 |  KAR     |  BHO    |        5 |
|   NULL |  NULL    |  PAN    |       46 |
|   NULL |  NULL    |  JAI    |       58 |
|   NULL |  NULL    |  MUM    |       78 |
|   NULL |  NULL    |  BAN    |      458 |
|   NULL |  NULL    |  SUR    |      489 |
+        +          +         +          +
+        +          +         +          +
```

```
10 rows in set (0.00 sec)
```

```
mysql> select * from capital c1, state s1 where
c1.cap_no=s1.state_no;
```

```
+        +          +          +          +
+            +         +
```

```
| cap_no | cap_name | state_no | state_no | state_name |
state_code | capital |
```

```
+        +          +          +          +
```

```
|            5 |        |        5 |        5 | MP          |
              KAR
 5 | BHO        |
```

```
+            +         +
```

```
+        +          +          +          +
+            +         +
```

```
1 row in set (0.00 sec)
```

```
mysql> select * from capital c1, state s1 where c1.cap_no!
=s1.state_no;
```

```
+        +          +          +          +
+            +          +
| cap_no | cap_name | state_no | state_no | state_name |
state_code | capital |
+        +          +          +          +
|      1 |MH        |      1 |      5 | MP        |
5 | BHO |
|      2 |RAJ       |      2 |      5 | MP        |
5 | BHO |
|      3 |GOA       |      3 |      5 | MP        |
5 | BHO |
|      4 |GUJ       |      4 |      5 | MP        |
5 | BHO |
|      1 |MH        |      1 |     46 | GOA       |
3 | PAN |
|      2 |RAJ       |      2 |     46 | GOA       |
3 | PAN |
|      3 |GOA       |      3 |     46 | GOA       |
3 | PAN |
|      4 |GUJ       |      4 |     46 | GOA       |
3 | PAN |
|      5 |KAR       |      5 |     46 | GOA       |
3 | PAN |
|      1 |MH        |      1 |     58 | RAJ       |
2 | JAI |
|      2 |RAJ       |      2 |     58 | RAJ       |
2 | JAI |
|      3 |GOA       |      3 |     58 | RAJ       |
2 | JAI |
|      4 |GUJ       |      4 |     58 | RAJ       |
2 | JAI |
|      5 |KAR       |      5 |     58 | RAJ       |
2 | JAI |
|      1 |MH        |      1 |     78 | MH        |
1 | MUM |
|      2 |RAJ       |      2 |     78 | MH        |
1 | MUM |
+             +          +
|        3 | | GOA      |        3 |        78 | | MH       |
1 | MUM    |
|        4 | | GUJ      |        4 |        78 | | MH       |
1 | MUM    |
|        5 | | KAR      |        5 |        78 | | MH       |
1 | MUM    |
|        1 | | MH       |        1 |       458 | | KAR      |
5 | BAN    |
|        2 | | RAJ      |        2 |       458 | | KAR      |
5 | BAN    |
|        3 | | GOA      |        3 |       458 | | KAR      |
5 | BAN    |
|        4 | | GUJ      |        4 |       458 | | KAR      |
5 | BAN    |
|        5 | | KAR      |        5 |       458 | | KAR      |
5 | BAN    |
|        1 | | MH       |        1 |       489 | | GUJ      |
4 | SUR    |
|        2 | | RAJ      |        2 |       489 | | GUJ      |
4 | SUR    |
|        3 | | GOA      |        3 |       489 | | GUJ      |
4 | SUR    |
|        4 | | GUJ      |        4 |       489 | | GUJ      |
4 | SUR    |
|        5 | | KAR      |        5 |       489 | | GUJ      |
4 | SUR    |
+        +          +          +          +
+             +          +
29 rows in set (0.00 sec)

mysql> select * from state where state_no=(select state_no
from state where state_name='MH');

+          +            +            +          +
| state_no | state_name | state_code | capital |
+          +            +            +          +
|       78 | MH         |          1 | MUM     |
+          +            +            +          +
1 row in set (0.06 sec)

mysql> select * from state where state_no=(select state_no
from state where state_name='GUJ');

+          +            +            +         +

| state_no | state_name | state_code | capital |

+          +            +            +         +

|      489 | GUJ        |          4 | SUR     |

+          +            +            +         +

1 row in set (0.00 sec)


mysql> select * from state where state_no=(select
capital.state_no from capital where cap_name='MH');

Empty set (0.00 sec)


mysql> select * from state where state_no=(select
capital.state_no from capital where cap_name='GUJ');

Empty set (0.00 sec)


mysql> select * from state where state_no=(select
capital.state_no from capital where cap_name='RAJ');

Empty set (0.00 sec)


mysql> select * from state where state_no=(select
capital.state_no from capital where cap_name='KAR');

+          +            +            +         +

| state_no | state_name | state_code | capital |

+          +            +            +         +

|        5 | MP         |          5 | BHO     |

+          +            +            +         +

1 row in set (0.00 sec)
```

```
mysql>
```

---------------------------ASSIGNMENT NO. 3-----------------------------------

TITLE: Unnamed PL/SQL code block: Use of Control structure and Exception handling is mandatory. Write a PL/SQL block of code for the following requirements:-

---

Schema:

- Borrower(Rollin, Name, DateofIssue, NameofBook, Status)
- Fine(Roll_no,Date,Amt)
- Accept roll_no & name of book from user.
- Check the number of days (from date of issue), if days are between 15to 30 then fine

amount will be Rs 5per day.

- If no. of days>30, per day fine will be Rs 50 per day & for days less than30, Rs. 5 per

day.

- After submitting the book, status will change from I to R.
- If condition of fine is true, then details will be stored into fine table.

Frame the problem statement for writing PL/SQL block inline with abovestatement.

--

```
mysql> use Abhi;

Reading table information for completion of table and column
names

You can turn off this feature to get a quicker startup with -A


Database  changed

mysql> delimiter //
mysql> call
B1(1,'TOC')
    -> //
+           +
| NOT FOUND |
+           +

| NOT FOUND |
+           +
1 row in set (0.35 sec)

Query OK, 0 rows affected (0.41 sec)

mysql> select * from Borrower;
    -> //
+         +          +            +           +          +
| roll_no | name     | DOI        | book_name | status   |
+         +          +            +           +          +
|      12 | patel    | 2018-07-01 | xyz       | issued   |
|      14 | shinde   | 2018-06-01 | oop       | issued   |
|      16 | bhangale | 2018-05-01 | coa       | returned |
|      18 | rebello  | 2018-06-15 | toc       | returned |
|      20 | patil    | 2018-05-15 | mp        | issued   |
+         +          +            +           +          +
5 rows in set (0.00 sec)

mysql> show tables;
    -> //
+                +
| Tables_in_Abhi |
+                +
| Borrower       |
| Employee       |
| Fine           |
| TE             |
| _master        |
| auto           |
| c_master       |
| capital        |
| customer       |
| orders         |
| person         |
| product_master |
| state          |
+                +
13 rows in set (0.00 sec)

mysql> create procedure B(roll_new int,book_name varchar(20))
    ->  begin
    ->  declare X integer;
    -> declare continue handler for not found
    -> begin
    -> select 'NOT FOUND';
    -> end;
    -> select datediff(curdate(),DOI) into X from Borrower
where roll_no=roll_new;
    ->  if (X>15&&X<30)
    -> then
    ->  insert into Fine values(roll_new,curdate(),(X*5));
    ->  end if;
    ->  if (X>30)
    -> then
    ->  insert into Fine values(roll_new,curdate(),(X*50));
    ->  end if;
    ->  update Borrower set status='returned' where
roll_no=roll_new;
    -> end;
    -> //
Query OK, 0 rows affected (0.02 sec)

mysql> call B(12,'xyz');
    -> //
Query OK, 1 row affected (0.42 sec)

mysql> select * from Fine;//
+         +            +        +
| roll_no | fine_date  | amount |
+         +            +        +
|      12 | 2018-07-28 |    135 |
+         +            +        +
1 row in set (0.00 sec)

mysql> select * from Borrower;//
+         +          +            +           +          +
| roll_no | name     | DOI        | book_name | status   |
+         +          +            +           +          +
|      12 | patel    | 2018-07-01 | xyz       | returned |
|      14 | shinde   | 2018-06-01 | oop       | issued   |
|      16 | bhangale | 2018-05-01 | coa       | returned |
|      18 | rebello  | 2018-06-15 | toc       | returned |
|      20 | patil    | 2018-05-15 | mp        | issued   |
+         +          +            +           +          +
5 rows in set (0.00 sec)

mysql> call B(20,'patil');
    -> //
Query OK, 1 row affected (0.35 sec)

mysql> select * from Fine;//
+         +            +        +
| roll_no | fine_date  | amount |
+         +            +        +
|      12 | 2018-07-28 |    135 |

|      20 | 2018-07-28 |   3700 |
+         +            +        +
2 rows in set (0.00 sec)

mysql> select * from Borrower;//
+         +          +            +           +          +
| roll_no | name     | DOI        | book_name | status   |
+         +          +            +           +          +
|      12 | Patel    | 2018-07-01 | xyz       | returned |
|      14 | Shinde   | 2018-06-01 | oop       | issued   |
|      16 | Bhangale | 2018-05-01 | coa       | returned |
|      18 | Rebello  | 2018-06-15 | toc       | returned |
|      20 | Patil    | 2018-05-15 | mp        | returned |
+         +          +            +           +          +
5 rows in set (0.00 sec)
```

```
mysql>
```

--------------------**ASSIGNMENT NO:4**------------------

Title : Implement MYSQL/Oracle database connectivity with PHP/ python/Java Implement Database navigation operations (add, delete, edit,) using ODBC/JDBC.

```
-------------------------------------------------------
import java.awt.*;
import java.awt.event.*;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import javax.swing.*;
public class student extends JFrame implements
ActionListener{
JFrame f;
JLabel l1, l2,l3,l4;
JTextField t1, t2,t3;
JButton b1, b2, b3, b4, b5;
Connection c;
Statement s;
ResultSet r;
student ()
{try{
f=new JFrame("Student Form");
f.setLayout(null);f.setVisible(true);
f.setSize(700, 500);
l4=new JLabel("Student Management System");
//l4.setBounds(100,01,250,250);
l4.setBounds(100, 30, 400, 30);
f.add(l4);
l4.setForeground(Color.blue);
l4.setFont(new Font("Serif", Font.BOLD,
30));
l1=new JLabel("Stud_RollNo");
l1.setBounds(50, 70, 100, 50);f.add(l1);
l2=new JLabel("Stud_Name");
l2.setBounds(50, 120, 100, 50);
f.add(l2);
l3=new JLabel("Stud_Dept");
l3.setBounds(50, 170, 100, 50);
f.add(l3);
t1=new JTextField();
t1.setBounds(150, 90, 100, 30);
f.add(t1);
```

```
t2=new JTextField();
t2.setBounds(150, 140, 100, 30);
f.add(t2);t3=new JTextField();
t3.setBounds(150, 190, 100, 30);
f.add(t3);
b1= new JButton("ADD");
b1.setBounds(200, 300, 75, 50);
f.add(b1);
b1.addActionListener(this);
b2= new JButton("EDIT");
b2.setBounds(300, 300, 75, 50);
f.add(b2);
b2.addActionListener(this);
b3= new JButton("DELETE");b3.setBounds(400, 300, 75, 50);
f.add(b3);
b3.addActionListener(this);
b5= new JButton("EXIT");
b5.setBounds(500, 300, 75, 50);
f.add(b5);
b5.addActionListener(this);
Class.forName("com.mysql.jdbc.Driver");
c=DriverManager.getConnection("jdbc:mysql://loca
lhost:3306/info","root","root");s=c.createStatement();
}catch(Exception e){System.out.println(e);}
}//ends INS Constructor
public void actionPerformed(ActionEvent ae){
try{
if(ae.getSource()==b1){String s1="INSERT
INTO result(stud_RollNo,stud_Name,stud_Dept)
VALUES("+t1.getText()+",'"+t2.getText()
+"','"+t3.getText() + "')";
System.out.println(s1);
s.executeUpdate(s1);
r=s.executeQuery("SELECT * FROM result");
t1.setText("");
t2.setText("");
t3.setText("");
}else if(ae.getSource()==b2){
String s2="UPDATE user1 SET
stud_Name='"+t2.getText()+"' WHERE
stud_RollNo="+t1.getText();
System.out.println(s2);
s.executeUpdate(s2);
r=s.executeQuery("SELECT * FROM result");
t1.setText("");
t2.setText("");t3.setText("");
}else if(ae.getSource()==b3){
```

```
String s3="DELETE FROM result WHERE
stud_RollNo="+t1.getText();
System.out.println(s3);
s.executeUpdate(s3);
r=s.executeQuery("SELECT * FROM result");
t1.setText("");
t2.setText("");
t3.setText("");}else if(ae.getSource()==b5){System.exit(0); }
}catch(Exception e){System.out.println(e);}
}
public static void main(String args[]){
new student();
}
}
----------------------------------- Output -------------------
-------------------
sl2-pc5@sl2pc5-HP-Compaq-4000-Pro-SFF-PC:~$
mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with
; or \g.
Your MySQL connection id is 42
Server version: 5.5.61-0ubuntu0.14.04.1 (Ubuntu)
Copyright (c) 2000, 2018, Oracle and/or its
affiliates. All rights reserved.
Oracle is a registered trademark of Oracle
Corporation and/or itsaffiliates. Other names may be
trademarks of
their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to
clear the current input statement.
mysql> create database info;
Query OK, 1 row affected (0.03 sec)
mysql> use info;
Database changed
mysql> create table result (stud_RollNo
int,stud_Name varchar(20),stud_Dept
varchar(20));
Query OK, 0 rows affected (0.08 sec)
mysql> select *from result;
+-------------+-----------+-----------+| stud_RollNo |
stud_Name | stud_Dept |
+-------------+-----------+-----------+
|
1 | abc
| comp
```

```
|
+-------------+-----------+-----------+
1 row in set (0.00 sec)
//ADD DATA
mysql> select *from result;
+-------------+-----------+-----------+
| stud_RollNo | stud_Name | stud_Dept |
+-------------+-----------+-----------+
|
1 | abc
| comp
|
|
2 | harsha
| comp
|
|
3 | tej
| comp
|
|
4 | rina
| mech
|
+-------------+-----------+-----------+4 rows in set (0.00
sec)
//DELETE DATA
mysql> select *from result;
+-------------+-----------+-----------+| stud_RollNo |
stud_Name | stud_Dept |
+-------------+-----------+-----------+
|
2 | harsha
| comp
|
|
3 | tej
| comp
|
|
4 | rina
| mech
|
+-------------+-----------+-----------+
3 rows in set (0.00 sec)
```

---------------------------ASSIGNMENT NO. 5-----------------------------------

TITLE: Design and Develop MongoDB Queries using CRUD operations.(Use CRUD operations,

SAVE method, logical operators)

--

```
sl1-pc6@sl1pc6-HP-dx2480-MT-VP562PA:~$

mongoMongoDB shell version: 2.6.10

connecting to: test

Server has startup warnings:

2018-09-19T10:13:21.731+0530 [initandlisten]

2018-09-19T10:13:21.731+0530 [initandlisten] ** NOTE: This
isa 32 bit MongoDB binary.

2018-09-19T10:13:21.731+0530 [initandlisten] **        32
bitbuilds are limited to less than 2GB of data (or less
with
--journal).

2018-09-19T10:13:21.731+0530 [initandlisten] **
                                                       S
eehttp://dochub.mongodb.org/core/32bit

2018-09-19T10:13:21.731+0530 [initandlisten]

• use Abhi;

switched to db

Abhi

• db.createCollection('Student');

{ "ok" : 1 }

• db.Student.insert({'Rno':'1','Name':'Piyush','Class':'T
ECOMP'});

WriteResult({ "nInserted" : 1 })

• db.Student.insert({'Rno':'2','Name':'Abhi','Class':'T
ECOMP'});

WriteResult({ "nInserted" : 1 })

• db.Student.insert({'Rno':'3','Name':'Ashley','Class':'T
ECOMP'});
```

```
WriteResult({ "nInserted" : 1 })

• db.Student.insert({'Rno':'4','Name':'Hitesh','Class':'T
ECOMP'});

WriteResult({ "nInserted" : 1 })

• db.Student.insert({'Rno':'5','Name':'Pratik','Class':'T
ECOMP'});

WriteResult({ "nInserted" : 1 })

• db.Student.insert({'Rno':'6','Name':'Pratik','Class':'T
ECOMP'});

WriteResult({ "nInserted" : 1 })

• db.Student.find();

{ "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1",
"Name" : "Piyush", "Class" : "TE COMP" }

{ "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2",
"Name" : "Abhi", "Class" : "TE COMP" }

{ "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",
"Name" : "Ashley", "Class" : "TE COMP" }

{ "_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",
"Name" : "Hitesh", "Class" : "TE COMP" }

{ "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",
"Name" : "Pratik", "Class" : "TE COMP" }

{ "_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",
"Name" : "Pratik", "Class" : "TE COMP" }

• db.Student.find().pretty();

{

     "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),

     "Rno" : "1",

     "Name" : "Piyush",

     "Class" : "TE COMP"

}

{

     "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),

     "Rno" : "2",
     "Name" : "Abhi",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",
     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
     "Rno" : "6",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
```

- db.Student.update({'Name':'Hitesh'},{$set:{'Name':'Henry'}});

```
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1
})
```

- db.Student.find().pretty();

```
{
     "_id" : ObjectId("5b8fad4ef00832a0a50b5036"),
     "Rno" : "1",
     "Name" : "Piyush",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fad62f00832a0a50b5037"),
     "Rno" : "2",
     "Name" : "Abhi",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fad70f00832a0a50b5038"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fad7ff00832a0a50b5039"),
     "Rno" : "4",
     "Name" : "Henry",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fad8df00832a0a50b503a"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fada4f00832a0a50b503b"),
     "Rno" : "6",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
• db.Student.remove({'ADD':'MP'}
);WriteResult({ "nRemoved" : 1
})
• db.Student.find().pretty();
{
     "_id" : ObjectId("5b8fad62f00832a0a50b5037"),
     "Rno" : "2",
     "Name" : "Abhi",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fad70f00832a0a50b5038"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fad7ff00832a0a50b5039"),
     "Rno" : "4",
     "Name" : "Henry",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fad8df00832a0a50b503a"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5b8fada4f00832a0a50b503b"),
     "Rno" : "6",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
>
db.Student.save({_id:ObjectId("5b8fad4ef00832a0a50b5036"),"RNO":"1","NAME":"PIYUSH","CLASS":"TE COMP","ADD":"MP"});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
• db.Student.find().pretty();
{
     "_id" : ObjectId("5b8fad4ef00832a0a50b5036"),
     "RNO" : "1",
     "NAME" : "PIYUSH",
     "CLASS" : "TE COMP",
     "ADD" : "MP"
}
```

```
{
        "_id" : ObjectId("5b8fad62f00832a0a50b5037"),
        "Rno" : "2",
        "Name" : "Abhi",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5b8fad70f00832a0a50b5038"),
        "Rno" : "3",
        "Name" : "Ashley",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5b8fad7ff00832a0a50b5039"),
        "Rno" : "4",

        "Name" : "Henry",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5b8fad8df00832a0a50b503a"),
        "Rno" : "5",
        "Name" : "Pratik",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5b8fada4f00832a0a50b503b"),
        "Rno" : "6",
        "Name" : "Pratik",
     "Class" : "TE COMP"
}

• db.Student.find({$and:[{"Name":"Piyush"},{"Rno":"2"}]});
• db.Student.find({$and:[{"Name":"Piyush"},
{"Rno":"1"}]}).pretty();
{
     "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),
     "Rno" : "1",
     "Name" : "Piyush",
     "Class" : "TE COMP"
}
• db.Student.find({$and:[{"Name":"Piyush"},
{"Rno":"2"}]}).pretty();
• db.Student.find({$or:[{"Name":"Piyush"},
{"Rno":"2"}]}).pretty();
{
     "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),
     "Rno" : "1",
     "Name" : "Piyush",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),
     "Rno" : "2",
     "Name" : "Abhi",
     "Class" : "TE COMP"
}
• db.Student.find({$or:[{"Name":"Piyush"},{"Class":"T
ECOMP"}]}).pretty();
```

```
{
        "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),
        "Rno" : "1",
        "Name" : "Piyush",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),
        "Rno" : "2",
        "Name" : "Abhi",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
        "Rno" : "3",
        "Name" : "Ashley",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
        "Rno" : "4",
        "Name" : "Hitesh",
        "Class" : "TE COMP"
}
{
        "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
        "Rno" : "5",
        "Name" : "Pratik",
        "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
     "Rno" : "6",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
```

- `db.Student.find({$nor:[{"Name":"Piyush"},{"Class":"TECOMP"}]}).pretty();`
- `db.Student.find({$nor:[{"Name":"Piyush"},{"Rno":"2"}]}).pretty();`

```
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",
     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
     "Rno" : "6",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
db.Student.find( {"Rno": { $not:{$lt:"3"}}}).pretty();
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",
     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
     "Rno" : "6",

     "Name" : "Pratik",
     "Class" : "TE COMP"
}
• db.Student.find( {"Rno": { $eq:"5"}}).pretty();
{
     "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
• db.Student.find( {"Rno": { $ne:"5"}}).pretty();
{
     "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),
     "Rno" : "1",
     "Name" : "Piyush",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),
     "Rno" : "2",
     "Name" : "Abhi",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",

     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
     "Rno" : "6",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
```

- db.Student.find({"Rno": { $gt:"5"}}).pretty();

```
{
    "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
    "Rno" : "6",
    "Name" : "Pratik",
    "Class" : "TE COMP"
}
```

- db.Student.find({"Rno": { $gte:"5"}}).pretty();

```
{
    "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
    "Rno" : "5",
    "Name" : "Pratik",
    "Class" : "TE COMP"
}
{
    "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
    "Rno" : "6",
    "Name" : "Pratik",
    "Class" : "TE COMP"
}
```

- db.Student.find({"Rno": { $lt:"5"}}).pretty();

```
{
    "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),
    "Rno" : "1",
    "Name" : "Piyush",
    "Class" : "TE COMP"
}
{
    "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),
    "Rno" : "2",
    "Name" : "Abhi",
    "Class" : "TE COMP"
}
{
    "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
    "Rno" : "3",
    "Name" : "Ashley",
    "Class" : "TE COMP"
}
{
    "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
    "Rno" : "4",
    "Name" : "Hitesh",
    "Class" : "TE COMP"
}
```

- db.Student.find({"Rno": { $lte:"5"}}).pretty();

```
{
     "_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),
     "Rno" : "1",
     "Name" : "Piyush",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),
     "Rno" : "2",

     "Name" : "Abhi",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",
     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
• db.Student.find( {"Rno": { $lt:"5",$gt:"2"}}).pretty();
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",
     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
• db.Student.find( {"Rno": { $lte:"5",$gte:"2"}}).pretty();
{
     "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),
     "Rno" : "2",
     "Name" : "Abhi",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",
     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
     "Rno" : "5",
     "Name" : "Pratik",
     "Class" : "TE COMP"
}
```

- `db.Student.find( {"Rno": { $lte:"5",$gt:"2"}}).pretty();`

```
{
    "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
    "Rno" : "3",
    "Name" : "Ashley",
    "Class" : "TE COMP"
}
{
    "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
    "Rno" : "4",
    "Name" : "Hitesh",
    "Class" : "TE COMP"
}
{
    "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
    "Rno" : "5",
    "Name" : "Pratik",
    "Class" : "TE COMP"
}
• db.Student.find( {"Rno": { $lt:"5",$gte:"2"}}).pretty();
{
     "_id" : ObjectId("5ba1d625f5bbacd4ad81568e"),
     "Rno" : "2",
     "Name" : "Abhi",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),
     "Rno" : "3",
     "Name" : "Ashley",
     "Class" : "TE COMP"
}
{
     "_id" : ObjectId("5ba1d647f5bbacd4ad815690"),
     "Rno" : "4",
     "Name" : "Hitesh",
     "Class" : "TE COMP"
}
```

----------------------------ASSIGNMENT NO. 6------------------------------------

TITLE: Cursors: (All types: Implicit, Explicit, Cursor FOR Loop, Parameterized Cursor) Write a PL/SQL block of code using parameterized Cursor, that will merge the data available in the newly created table N_RollCall with the data available in the table O_RollCall. If the data in the first table already exist in the second table then that data should be skipped.Frame the separate problem statement for writing PL/SQL block toimplement all types of Cursors inline with above statement. The problem statement should clearly state the requirements.

```
mysql> use Abhi;

Reading table information for completion of table and column
names

You can turn off this feature to get a quicker startup with -A


Database changed

mysql> create table o_rollcall(roll_no int,name
varchar(20),address varchar(20));

Query OK, 0 rows affected (0.28 sec)


mysql> create table n_rollcall(roll_no int,name
varchar(20),address varchar(20));

Query OK, 0 rows affected (0.27 sec)

mysql> insert into o_rollcall('1','Hitesh','Nandura');

ERROR 1064 (42000): You have an error in your SQL syntax;

check the manual that corresponds to your MySQL server version
for the right syntax to use near ''1','Hitesh','Nandura')' at
line 1

mysql> insert into o_rollcall values('1','Hitesh','Nandura');

Query OK, 1 row affected (0.05 sec)


mysql> insert into o_rollcall values('2','Piyush','MP');

Query OK, 1 row affected (0.06 sec)



mysql> insert into o_rollcall values('3','Ashley','Nsk');

Query OK, 1 row affected (0.05 sec)


mysql> insert into o_rollcall

values('4','Kalpesh','Dhule');Query OK, 1 row affected

(0.05 sec)
```

```
mysql> insert into o_rollcall values('5','Abhi','Satara');

Query OK, 1 row affected (0.04 sec)

mysql> delimiter //

mysql> create procedure p3(in r1 int)

    -> begin

    -> declare r2 int;

    -> declare exit_loop boolean;

    -> declare c1 cursor for select roll_no from o_rollcall
where roll_no>r1;

    -> declare continue handler for not found set
exit_loop=true;

    -> open c1;

    -> e_loop:loop

    -> fetch c1 into r2;

    -> if not exists(select * from n_rollcall where
roll_no=r2)

    -> then

    -> insert into n_rollcall select * from o_rollcall where
roll_no=r2;

    -> end if;

    -> if exit_loop

    -> then

    -> close c1;

    -> leave e_loop;

    -> end if;

    -> end loop e_loop;

    -> end

    -> //

Query OK, 0 rows affected (0.00 sec)
```

```
mysql> call p3(3);
-> //

Query OK, 0 rows affected (0.10 sec)


mysql> select * from n_rollcall;

    -> //

+         +         +         +

| roll_no | name    | address |

+         +         +         +

|       4 | Kalpesh | Dhule   |

|       5 | Abhi    | Satara  |

+         +         +         +

2 rows in set (0.00 sec)


mysql> call p3(0);

    -> //

Query OK, 0 rows affected (0.22 sec)


mysql> select * from n_rollcall;

    -> //

+         +         +         +

| roll_no | name    | address |

+         +         +         +

|       4 | Kalpesh | Dhule   |

|       5 | Abhi    | Satara  |

|       1 | Hitesh  | Nandura |

|       2 | Piyush  | MP      |

|       3 | Ashley  | Nsk     |


+         +         +         +
• rows in set (0.00 sec)

mysql> insert into o_rollcall values('6','Patil','Kolhapur');
    -> //
Query OK, 1 row affected (0.04 sec)

mysql> call p3(4);
    -> //
Query OK, 0 rows affected (0.05 sec)

mysql> select * from n_rollcall;
    -> //
+          +          +           +
| roll_no | name     | address   |

 |       4  |  Kalpesh   |  Dhule    |
 |       5  |  Abhi      |  Satara   |
 |       1  |  Hitesh    |  Nandura  |
 |       2  |  Piyush    |  MP       |
 |       3  |  Ashley    |  Nsk      |
|        6 |   Patil    |   Kolhapur |
+           +           +           +


+          +          +           +
• rows in set (0.00 sec)

mysql>
```