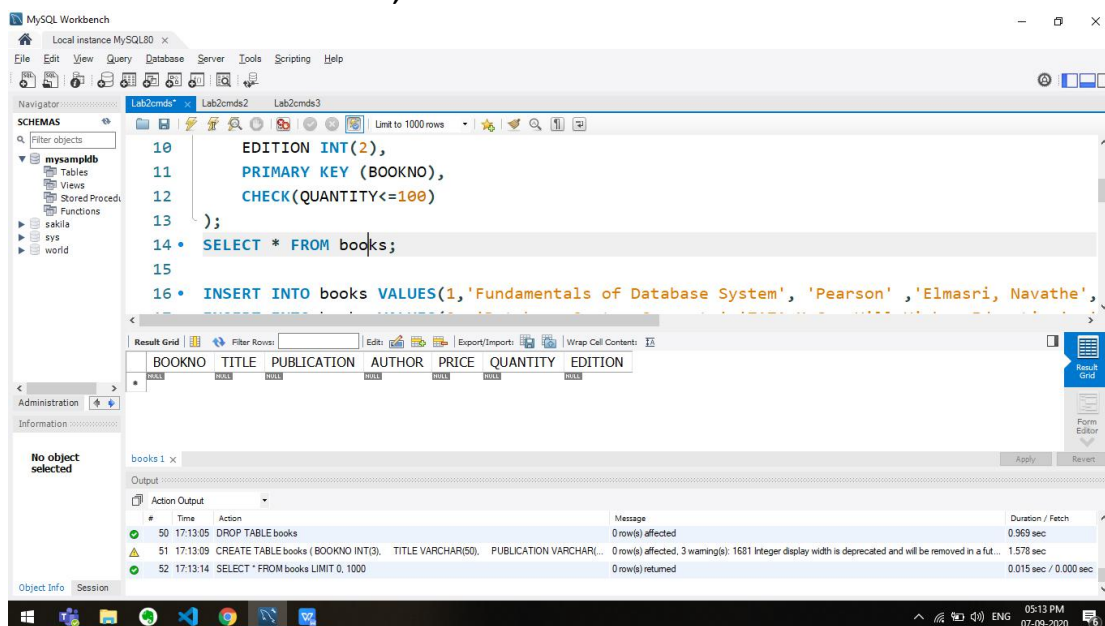


106118106 LAB2

Q1

```
use mysampldb;  
DROP TABLE books;  
CREATE TABLE books (  
    BOOKNO INT(3),  
    TITLE VARCHAR(50),  
    PUBLICATION VARCHAR(50),  
    AUTHOR VARCHAR(100),  
    PRICE DECIMAL(6,2),  
    QUANTITY INT(3),  
    EDITION INT(2),  
    PRIMARY KEY (BOOKNO),  
    CHECK(QUANTITY<=100)  
);  
SELECT * FROM books;
```

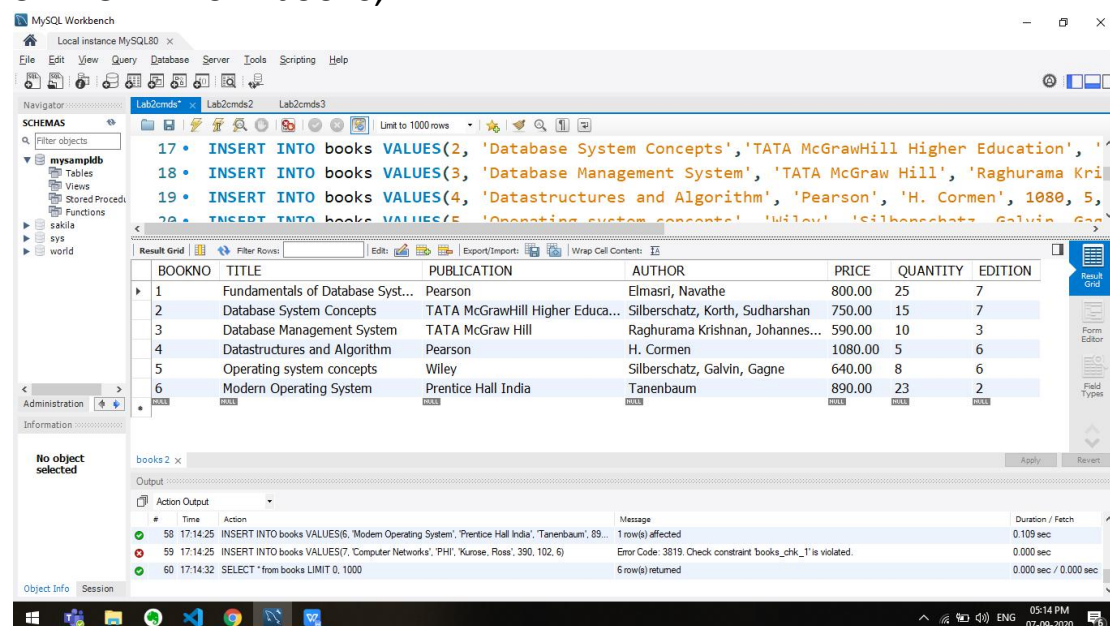


```
INSERT INTO books VALUES(1,'Fundamentals of Database  
System', 'Pearson', 'Elmasri, Navathe', 800, 25, 7);
```

```

INSERT INTO books VALUES(2, 'Database System
Concepts','TATA McGrawHill Higher Education', 'Silberschatz,
Korth, Sudharshan', 750, 15, 7);
INSERT INTO books VALUES(3, 'Database Management System',
'TATA McGraw Hill', 'Raghurama Krishnan, Johannes Gehrke',
590, 10, 3);
INSERT INTO books VALUES(4, 'Datastructures and Algorithm',
'Pearson', 'H. Cormen', 1080, 5, 6);
INSERT INTO books VALUES(5, 'Operating system concepts',
'Wiley', 'Silberschatz, Galvin, Gagne', 640, 8, 6);
INSERT INTO books VALUES(6, 'Modern Operating System',
'Prentice Hall India', 'Tanenbaum', 890, 23, 2);
INSERT INTO books VALUES(7, 'Computer Networks', 'PHI',
'Kurose, Ross', 390, 102, 6);
SELECT * from books;

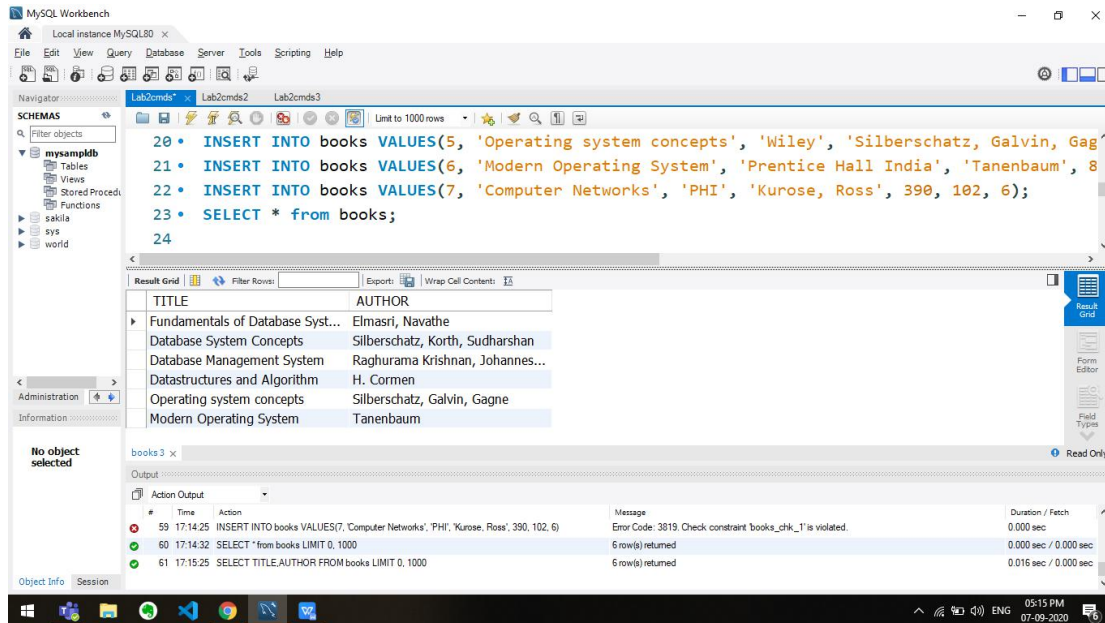
```



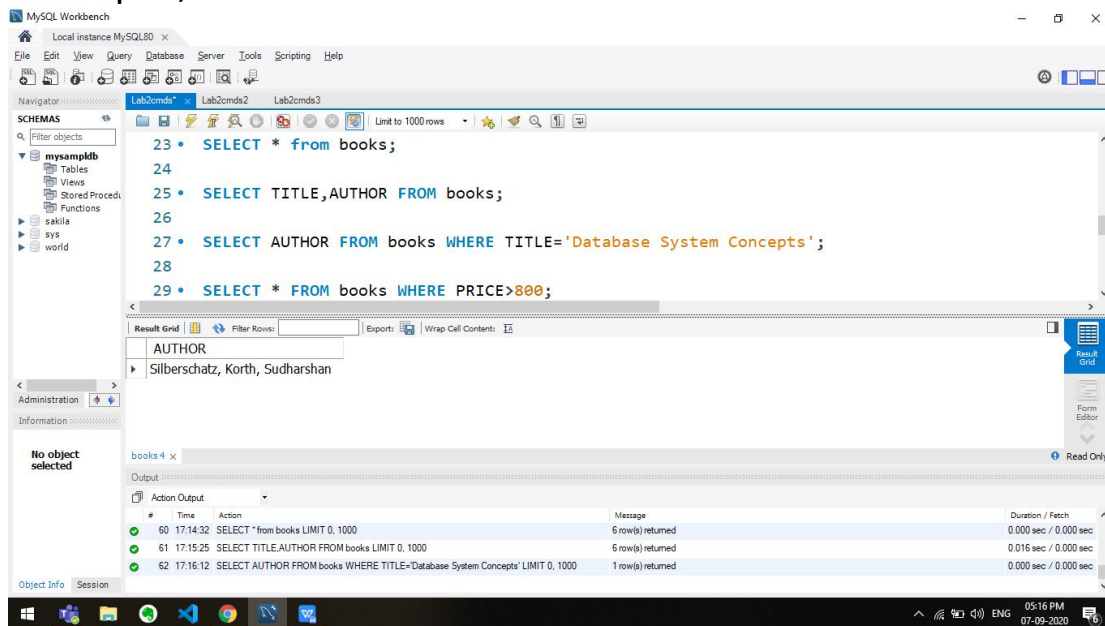
```

SELECT TITLE,AUTHOR FROM books;

```



SELECT AUTHOR FROM books WHERE TITLE='Database System Concepts';



SELECT * FROM books WHERE PRICE>800;

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Lab2cmds* Lab2cmds2 Lab2cmds3

Limit to 1000 rows

26

27 • SELECT AUTHOR FROM books WHERE TITLE='Database System Concepts';

28

29 • SELECT * FROM books WHERE PRICE>800;

30

31 • SELECT * FROM books WHERE QUANTITY>15 ORDER BY PRICE;

32

Result Grid

BOOKNO	TITLE	PUBLICATION	AUTHOR	PRICE	QUANTITY	EDITION
4	Datastructures and Algorithm	Pearson	H. Corman	1080.00	5	6
6	Modern Operating System	Prentice Hall India	Tanenbaum	890.00	23	2

books 5 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
61	17:15:25	SELECT TITLE,AUTHOR FROM books LIMIT 0, 1000	6 row(s) returned	0.016 sec / 0.000 sec
62	17:16:12	SELECT AUTHOR FROM books WHERE TITLE='Database System Concepts' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
63	17:16:33	SELECT * FROM books WHERE PRICE>800 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

05:16 PM 07-09-2020

SELECT * FROM books WHERE QUANTITY>15 ORDER BY PRICE;

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Lab2cmds* Lab2cmds2 Lab2cmds3

Limit to 1000 rows

26

27 • Execute the statement under the keyboard cursor

28

29 • SELECT * FROM books WHERE PRICE>800;

30

31 • SELECT * FROM books WHERE QUANTITY>15 ORDER BY PRICE;

32

Result Grid

BOOKNO	TITLE	PUBLICATION	AUTHOR	PRICE	QUANTITY	EDITION
1	Fundamentals of Database Syst...	Pearson	Elmasri, Navathe	800.00	25	7
6	Modern Operating System	Prentice Hall India	Tanenbaum	890.00	23	2

books 6 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
62	17:16:12	SELECT AUTHOR FROM books WHERE TITLE='Database System Concepts' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
63	17:16:33	SELECT * FROM books WHERE PRICE>800 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
64	17:16:53	SELECT * FROM books WHERE QUANTITY>15 ORDER BY PRICE LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

05:16 PM 07-09-2020

SELECT * FROM books WHERE PUBLICATION LIKE 'P___%';

MySQL Workbench interface showing a query execution result. The query is: `SELECT * FROM books WHERE PUBLICATION LIKE 'P__%';`. The result grid shows 7 rows of book data.

BOOKNO	TITLE	PUBLICATION	AUTHOR	PRICE	QUANTITY	EDITION
1	Fundamentals of Database Syst...	Pearson	Elmasri, Navathe	800.00	25	7
4	Datastructures and Algorithm	Pearson	H. Cormen	1080.00	5	6
6	Modern Operating System	Prentice Hall India	Tanenbaum	890.00	23	2

SELECT * FROM books WHERE PUBLICATION NOT REGEXP
"^[PT].*\$";

MySQL Workbench interface showing a query execution result. The query is: `SELECT * FROM books WHERE PUBLICATION NOT REGEXP '^[PT].*$';`. The result grid shows 1 row of book data.

BOOKNO	TITLE	PUBLICATION	AUTHOR	PRICE	QUANTITY	EDITION
5	Operating system concepts	Wiley	Silberschatz, Galvin, Gagne	640.00	8	6

SELECT * FROM books WHERE AUTHOR LIKE 'Silberschatz%'
AND PUBLICATION LIKE 'TATA%';

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Lab2cmds* Lab2cmds2 Lab2cmds3

Limit to 1000 rows

32

33 • SELECT * FROM books WHERE PUBLICATION LIKE 'P____';

34

35 • SELECT * FROM books WHERE PUBLICATION NOT REGEXP "^[PT].*\$";

36

37 • SELECT * FROM books WHERE AUTHOR LIKE 'Silberschatz%' AND PUBLICATION LIKE 'TATA%';

38

Result Grid

BOOKNO	TITLE	PUBLICATION	AUTHOR	PRICE	QUANTITY	EDITION
2	Database System Concepts	TATA McGrawHill Higher Educa...	Silberschatz, Korth, Sudharshan	750.00	15	7

books 9 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
65	17:17:51	SELECT * FROM books WHERE PUBLICATION LIKE 'P____' LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
66	17:18:04	SELECT * FROM books WHERE PUBLICATION NOT REGEXP "^[PT].*\$" LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
67	17:18:22	SELECT * FROM books WHERE AUTHOR LIKE 'Silberschatz%' AND PUBLICATION LIKE 'TATA...	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

05:18 PM 07-09-2020

SELECT * FROM books WHERE TITLE LIKE '%CONCEPTS%';

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Lab2cmds* Lab2cmds2 Lab2cmds3

Limit to 1000 rows

34

35 • SELECT * FROM books WHERE PUBLICATION NOT REGEXP "^[PT].*\$";

36

37 • SELECT * FROM books WHERE AUTHOR LIKE 'Silberschatz%' AND PUBLICATION LIKE 'TATA%';

38

39 • SELECT * FROM books WHERE TITLE LIKE '%CONCEPTS%';

40

Result Grid

BOOKNO	TITLE	PUBLICATION	AUTHOR	PRICE	QUANTITY	EDITION
2	Database System Concepts	TATA McGrawHill Higher Educa...	Silberschatz, Korth, Sudharshan	750.00	15	7
5	Operating system concepts	Wiley	Silberschatz, Galvin, Gagne	640.00	8	6

books 10 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
66	17:18:04	SELECT * FROM books WHERE PUBLICATION NOT REGEXP "^[PT].*\$" LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
67	17:18:22	SELECT * FROM books WHERE AUTHOR LIKE 'Silberschatz%' AND PUBLICATION LIKE 'TATA...	1 row(s) returned	0.000 sec / 0.000 sec
68	17:18:38	SELECT * FROM books WHERE TITLE LIKE '%CONCEPTS%' LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

05:18 PM 07-09-2020

UPDATE books SET PRICE = (PRICE*1.1) WHERE PUBLICATION='Pearson';

SELECT * FROM books;

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Lab2cmds1 Lab2cmds2 Lab2cmds3

Limit to 1000 rows

37 • SELECT * FROM books WHERE AUTHOR LIKE 'Silberschatz%' AND PUBLICATION LIKE 'TATA%';

38

39 • SELECT * FROM books WHERE TITLE LIKE '%CONCEPTS%';

40

Result Grid

BOOKNO	TITLE	PUBLICATION	AUTHOR	PRICE	QUANTITY	EDITION
1	Fundamentals of Database Syst...	Pearson	Elmasri, Navathe	880.00	25	7
2	Database System Concepts	TATA McGrawHill Higher Educa...	Silberschatz, Korth, Sudharshan	750.00	15	7
3	Database Management System	TATA McGraw Hill	Ragurama Krishnan, Johannes...	590.00	10	3
4	Datastructures and Algorithm	Pearson	H. Cormen	1188.00	5	6
5	Operating system concepts	Wiley	Silberschatz, Galvin, Gagne	640.00	8	6
6	Modern Operating System	Prentice Hall India	Tanenbaum	890.00	23	2

No object selected

books 11 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
68	17:18:38	SELECT * FROM books WHERE TITLE LIKE '%CONCEPTS%': LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
69	17:18:53	UPDATE books SET PRICE = (PRICE*1.1) WHERE PUBLICATION='Pearson'	2 row(s) affected Rows matched: 2 Changed: 2 Warnings: 0	0.110 sec
70	17:18:53	SELECT * FROM books LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

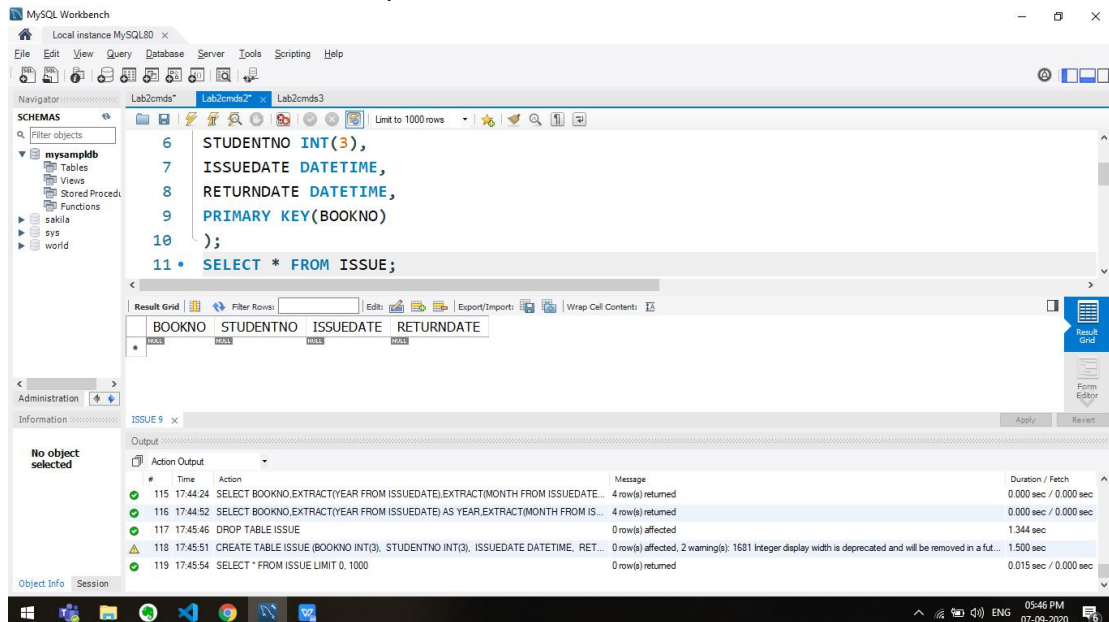
Object Info Session

05:19 PM 07-09-2020

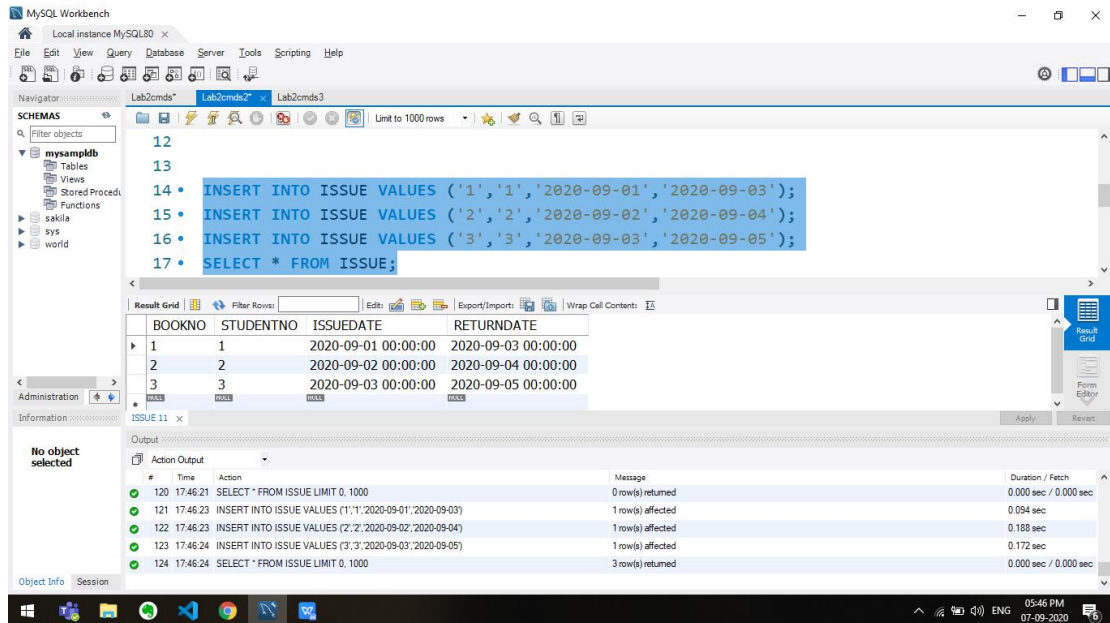
Q2

use mysampldb;
DROP TABLE ISSUE;

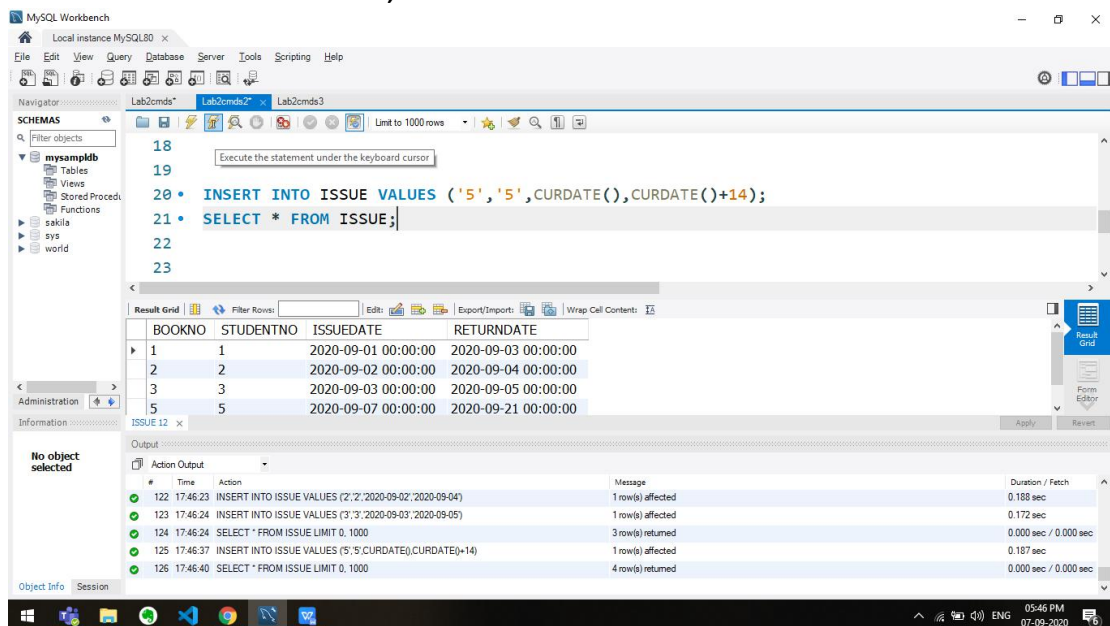
```
CREATE TABLE ISSUE  
(BOOKNO INT(3),  
STUDENTNO INT(3),  
ISSUEDATE DATETIME,  
RETURNDATE DATETIME,  
PRIMARY KEY(BOOKNO)  
);  
SELECT * FROM ISSUE;
```



```
INSERT INTO ISSUE VALUES ('1','1','2020-09-01','2020-09-03');  
INSERT INTO ISSUE VALUES ('2','2','2020-09-02','2020-09-04');  
INSERT INTO ISSUE VALUES ('3','3','2020-09-03','2020-09-05');  
SELECT * FROM ISSUE;
```

INSERT INTO ISSUE VALUES ('5','5',CURDATE(),CURDATE()+14);
SELECT * FROM ISSUE;



SELECT BOOKNO FROM ISSUE WHERE ISSUEDATE='2020-09-03';

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator Lab2cmds* Lab2cmds2* Lab2cmds3

Limit to 1000 rows

20 • `INSERT INTO ISSUE VALUES ('5','5',CURDATE(),CURDATE()+14);`

21 • `SELECT * FROM ISSUE;`

22

23

24 • `SELECT BOOKNO FROM ISSUE WHERE ISSUEDATE='2020-09-03';`

25

Result Grid

BOOKNO
3

Information

ISSUE 13 x

No object selected

Output

#	Time	Action	Message	Duration / Fetch
123	17:46:24	INSERT INTO ISSUE VALUES ('3','3','2020-09-03','2020-09-05')	1 row(s) affected	0.172 sec
124	17:46:24	SELECT * FROM ISSUE LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
125	17:46:37	INSERT INTO ISSUE VALUES ('5','5',CURDATE(),CURDATE()+14)	1 row(s) affected	0.187 sec
126	17:46:40	SELECT * FROM ISSUE LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
127	17:46:54	SELECT BOOKNO FROM ISSUE WHERE ISSUEDATE='2020-09-03' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

05:46 PM 07-09-2020

`SELECT * FROM ISSUE WHERE RETURNDATE=CURDATE()+3;`

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator Lab2cmds* Lab2cmds2* Lab2cmds3

Limit to 1000 rows

22

23

24 • `SELECT BOOKNO FROM ISSUE WHERE ISSUEDATE='2020-09-03';`

25

26

27 • `SELECT * FROM ISSUE WHERE RETURNDATE=CURDATE()+3;`

Result Grid

BOOKNO	STUDENTNO	ISSUEDATE	RETURNDATE
3	3	2020-09-03	2020-09-06

Information

ISSUE 14 x

No object selected

Output

#	Time	Action	Message	Duration / Fetch
124	17:46:24	SELECT * FROM ISSUE LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
125	17:46:37	INSERT INTO ISSUE VALUES ('5','5',CURDATE(),CURDATE()+14)	1 row(s) affected	0.187 sec
126	17:46:40	SELECT * FROM ISSUE LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
127	17:46:54	SELECT BOOKNO FROM ISSUE WHERE ISSUEDATE='2020-09-03' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
128	17:47:04	SELECT * FROM ISSUE WHERE RETURNDATE=CURDATE()+3 LIMIT 0, 1000	0 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

05:47 PM 07-09-2020

`SELECT date_format(ISSUEDATE, '%M %e, %Y') FROM ISSUE;`

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator Lab2cmds* Lab2cmds2* Lab2cmds3

SCHMAS

Filter objects

mysampkdb

Tables

Views

Stored Proced.

Functions

sakila

sys

world

25

26

27 • `SELECT * FROM ISSUE WHERE RETURNDATE=CURDATE()+3;`

28

29

Result Grid

Filter Rows

Export

Wrap Cell Content: 15

date_format(ISSUEDATE, '%M %e, %Y')

September 1, 2020

September 2, 2020

September 3, 2020

September 7, 2020

Administration

Information

No object selected

Result 15

Output

Action Output

#	Time	Action	Message	Duration / Fetch
125	17:46:37	INSERT INTO ISSUE VALUES ('S','S',CURDATE(),CURDATE()+14)	1 row(s) affected	0.187 sec
126	17:46:40	SELECT * FROM ISSUE LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
127	17:46:54	SELECT BOOKNO FROM ISSUE WHERE ISSUEDATE=2020-09-03 LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
128	17:47:04	SELECT * FROM ISSUE WHERE RETURNDATE=CURDATE()+3 LIMIT 0, 1000	0 row(s) returned	0.016 sec / 0.000 sec
129	17:47:16	SELECT date_format(ISSUEDATE, '%M %e, %Y') FROM ISSUE LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

05:47 PM 07-09-2020

SELECT BOOKNO,EXTRACT(YEAR FROM ISSUEDATE) AS YEAR,EXTRACT(MONTH FROM ISSUEDATE) AS MONTH FROM ISSUE;

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator Lab2cmds* Lab2cmds2* Lab2cmds3

SCHMAS

Filter objects

mysampkdb

Tables

Views

Stored Proced.

Functions

sakila

sys

world

29

30 • `SELECT date_format(ISSUEDATE, '%M %e, %Y') FROM ISSUE;`

31

32 • `SELECT BOOKNO,EXTRACT(YEAR FROM ISSUEDATE) AS YEAR,EXTRACT(MONTH FROM ISSUEDATE) AS MONTH FROM`

Result Grid

Filter Rows

Export

Wrap Cell Content: 15

BOOKNO	YEAR	MONTH
1	2020	9
2	2020	9
3	2020	9
5	2020	9

Administration

Information

No object selected

Result 16

Output

Action Output

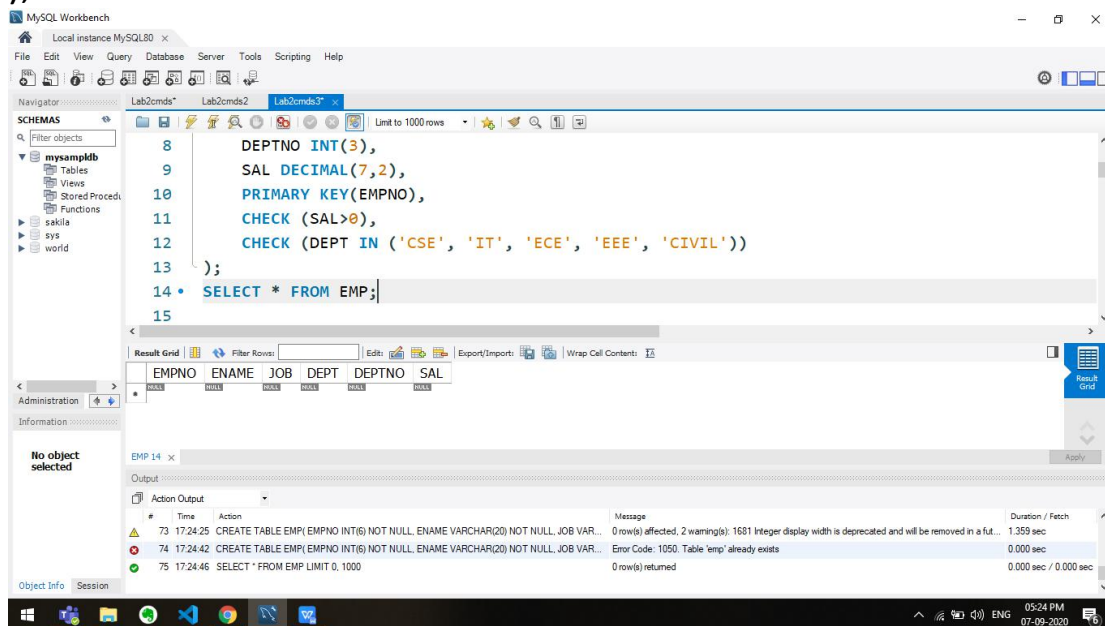
#	Time	Action	Message	Duration / Fetch
126	17:46:40	SELECT * FROM ISSUE LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
127	17:46:54	SELECT BOOKNO FROM ISSUE WHERE ISSUEDATE=2020-09-03 LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
128	17:47:04	SELECT * FROM ISSUE WHERE RETURNDATE=CURDATE()+3 LIMIT 0, 1000	0 row(s) returned	0.016 sec / 0.000 sec
129	17:47:16	SELECT date_format(ISSUEDATE, '%M %e, %Y') FROM ISSUE LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
130	17:47:42	SELECT BOOKNO,EXTRACT(YEAR FROM ISSUEDATE) AS YEAR,EXTRACT(MONTH FROM IS...	4 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

05:47 PM 07-09-2020

Q3

```
use mysampldb;  
DROP TABLE EMP;  
CREATE TABLE EMP(  
    EMPNO INT(6) NOT NULL,  
    ENAME VARCHAR(20) NOT NULL,  
    JOB VARCHAR(10) NOT NULL,  
    DEPT VARCHAR(10),  
    DEPTNO INT(3),  
    SAL DECIMAL(7,2),  
    PRIMARY KEY(EMPNO),  
    CHECK (SAL>0),  
    CHECK (DEPT IN ('CSE', 'IT', 'ECE', 'EEE', 'CIVIL'))  
);
```

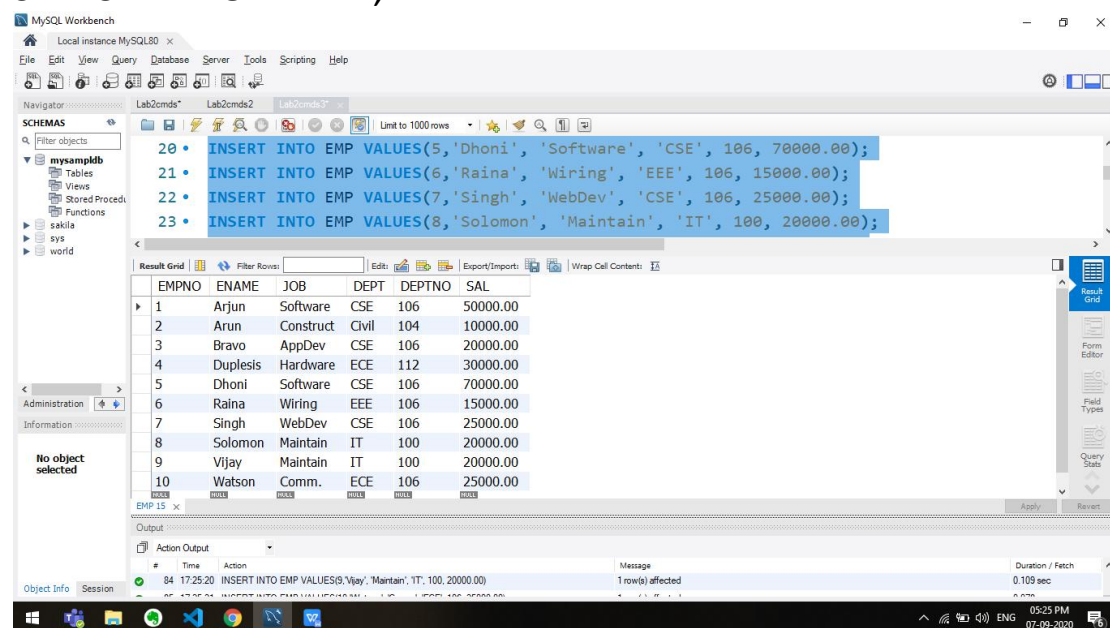


```
INSERT INTO EMP VALUES(1,'Arjun', 'Software', 'CSE', 106,  
50000.00);  
INSERT INTO EMP VALUES(2,'Arun', 'Construct', 'Civil', 104,  
10000.00);  
INSERT INTO EMP VALUES(3,'Bravo', 'AppDev', 'CSE', 106,  
20000.00);
```

```

INSERT INTO EMP VALUES(4,'Duplesis', 'Hardware', 'ECE', 112,
30000.00);
INSERT INTO EMP VALUES(5,'Dhoni', 'Software', 'CSE', 106,
70000.00);
INSERT INTO EMP VALUES(6,'Raina', 'Wiring', 'EEE', 106,
15000.00);
INSERT INTO EMP VALUES(7,'Singh', 'WebDev', 'CSE', 106,
25000.00);
INSERT INTO EMP VALUES(8,'Solomon', 'Maintain', 'IT', 100,
20000.00);
INSERT INTO EMP VALUES(9,'Vijay', 'Maintain', 'IT', 100,
20000.00);
INSERT INTO EMP VALUES(10,'Watson', 'Comm.', 'ECE', 106,
25000.00);
SELECT * FROM EMP;

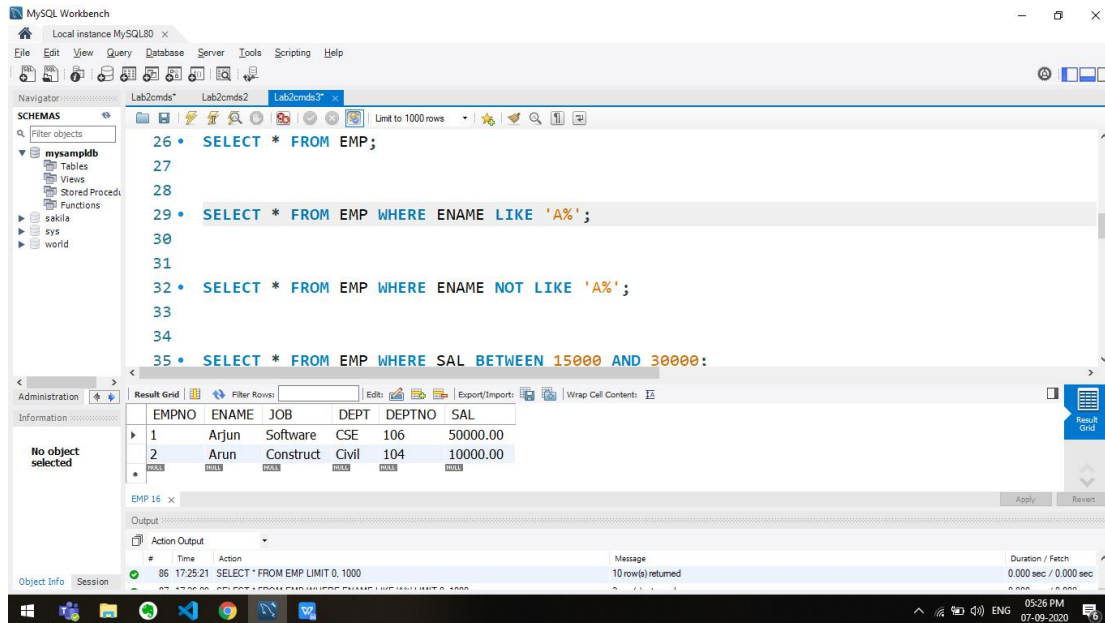
```



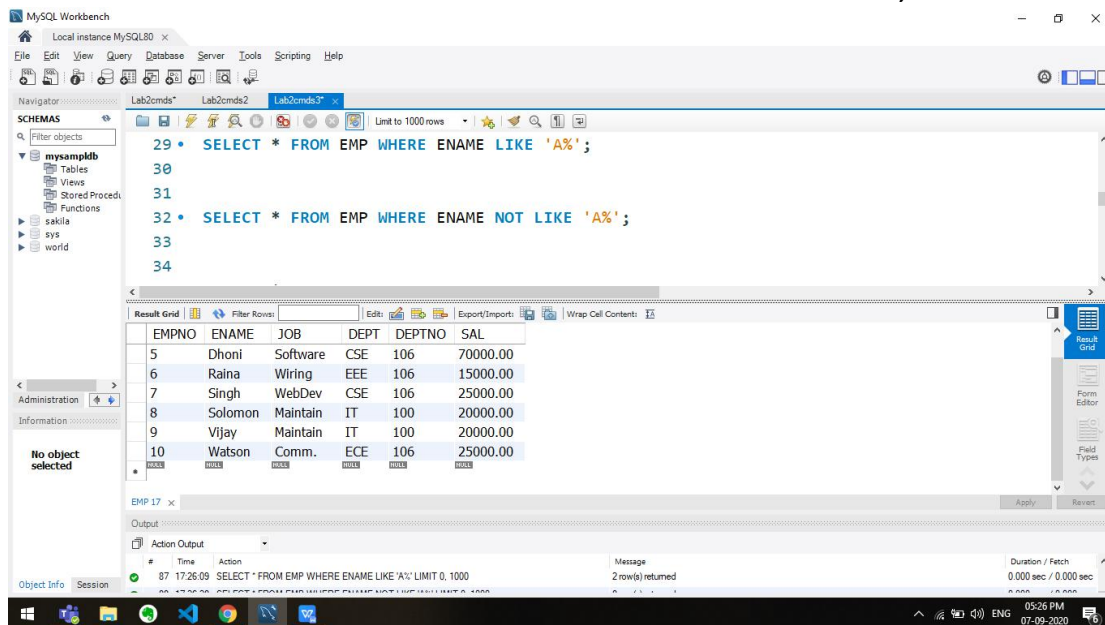
```

SELECT * FROM EMP WHERE ENAME LIKE 'A%';

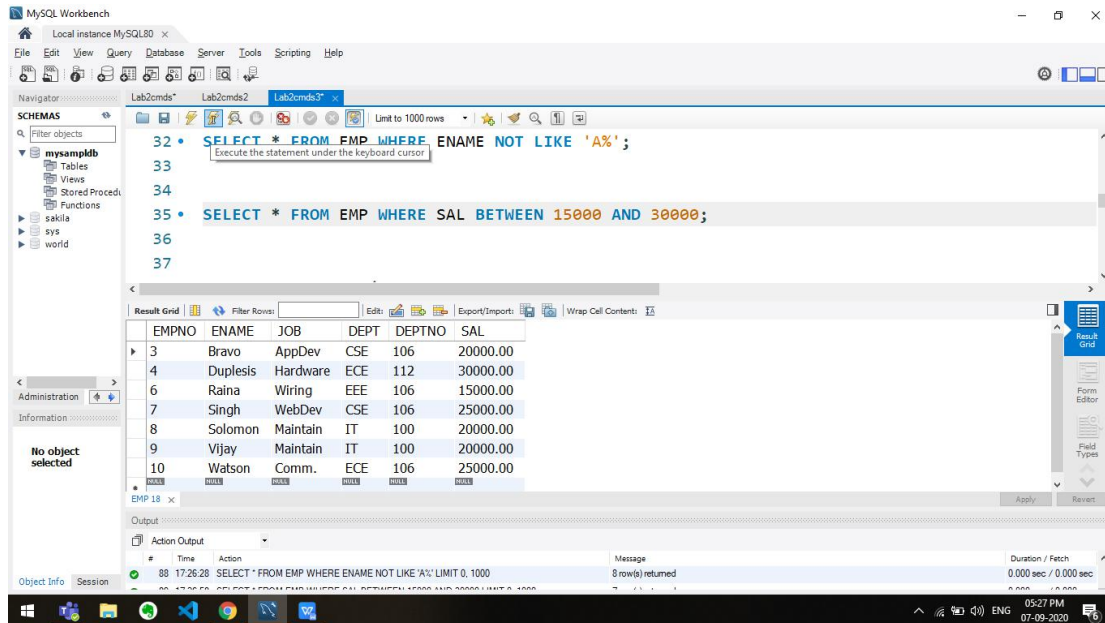
```

SELECT * FROM EMP WHERE ENAME NOT LIKE 'A%';



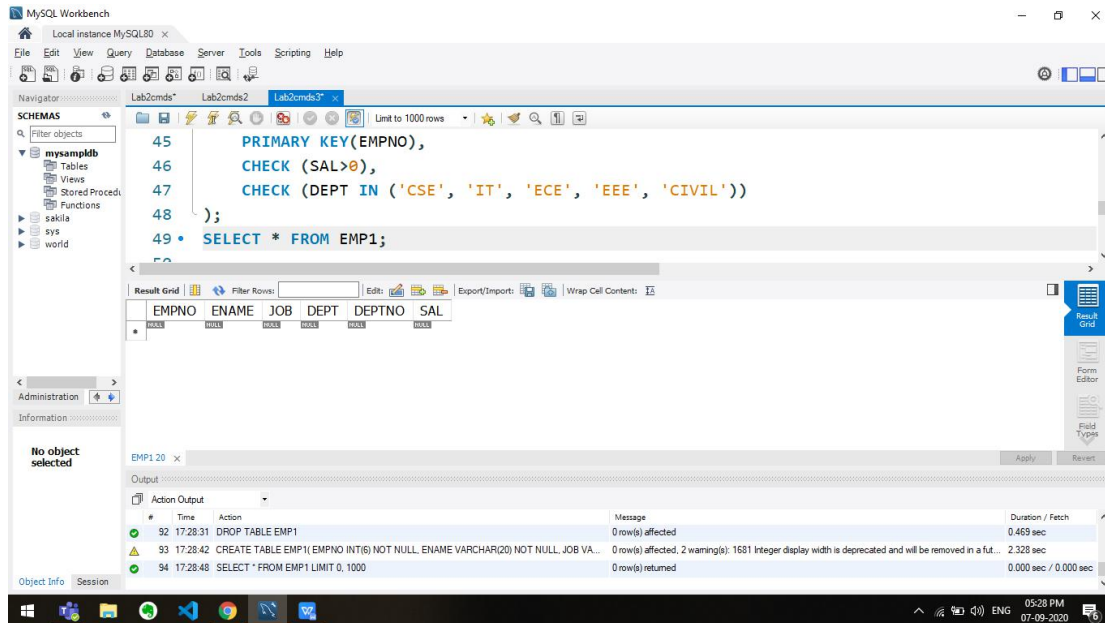
SELECT * FROM EMP WHERE SAL BETWEEN 15000 AND 30000;



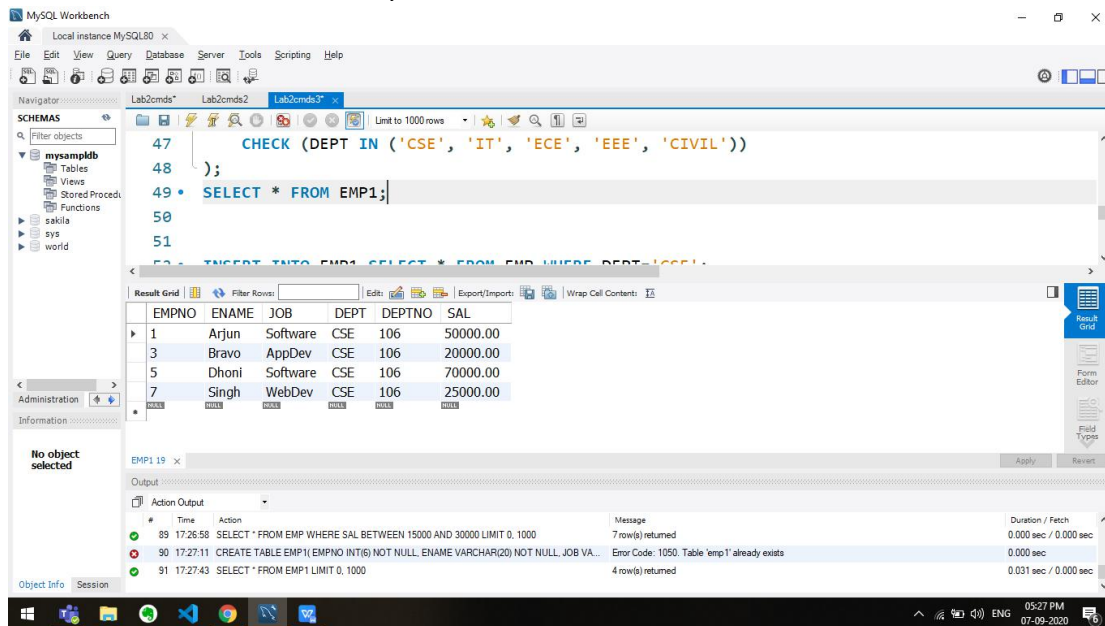
```

CREATE TABLE EMP1(
    EMPNO INT(6) NOT NULL,
    ENAME VARCHAR(20) NOT NULL,
    JOB VARCHAR(10) NOT NULL,
    DEPT VARCHAR(10),
    DEPTNO INT(3),
    SAL DECIMAL(7,2),
    PRIMARY KEY(EMPNO),
    CHECK (SAL>0),
    CHECK (DEPT IN ('CSE', 'IT', 'ECE', 'EEE', 'CIVIL'))
);
SELECT * FROM EMP1;

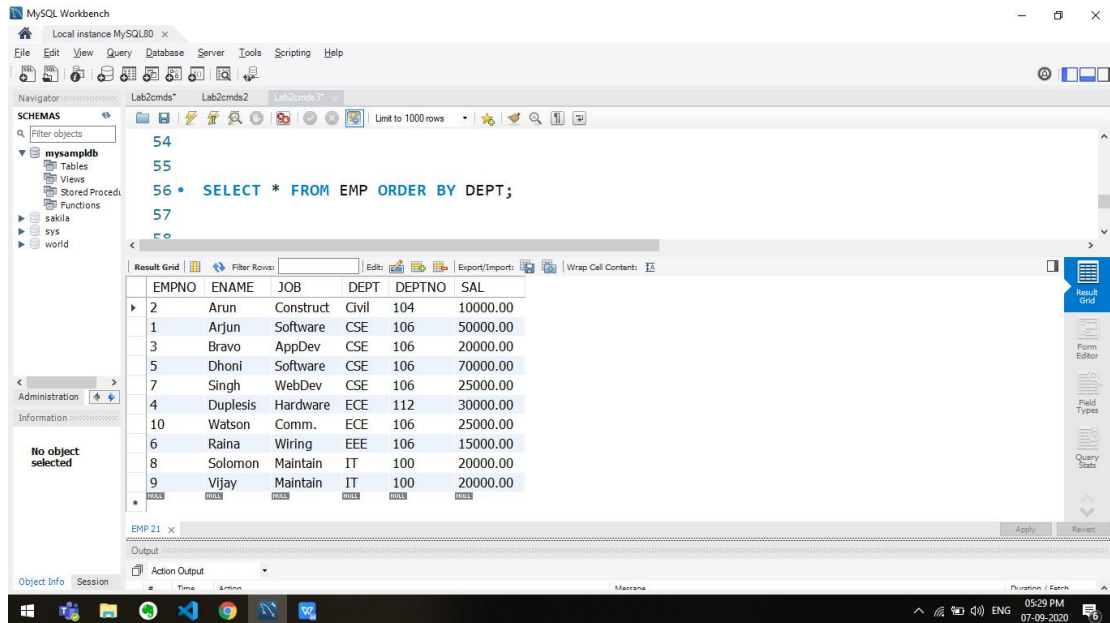
```



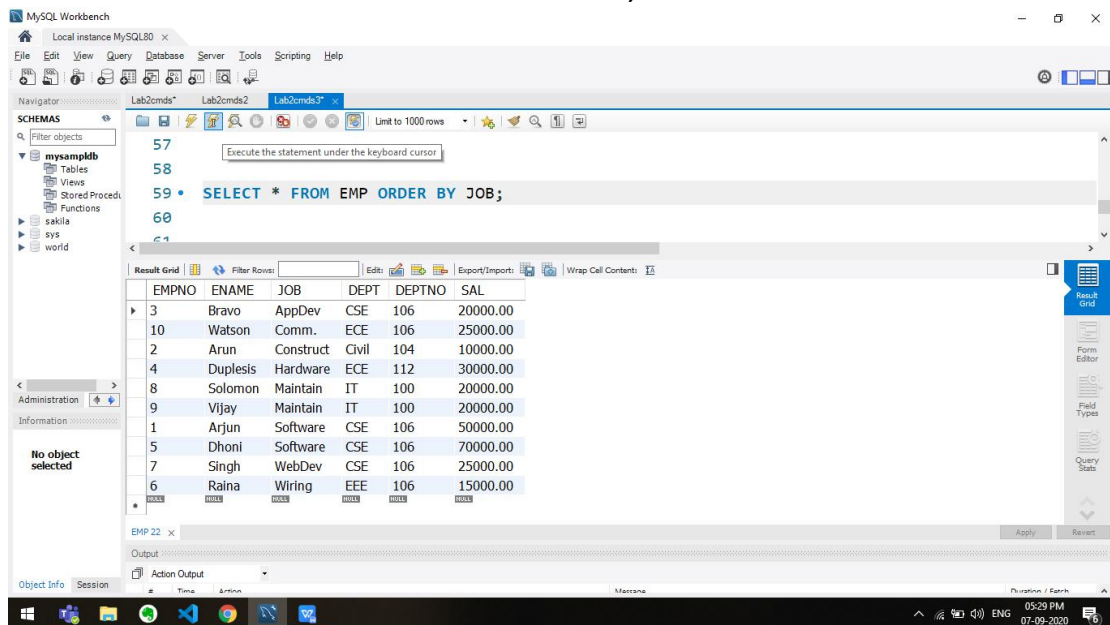
INSERT INTO EMP1 SELECT * FROM EMP WHERE DEPT='CSE';
SELECT * FROM EMP1;



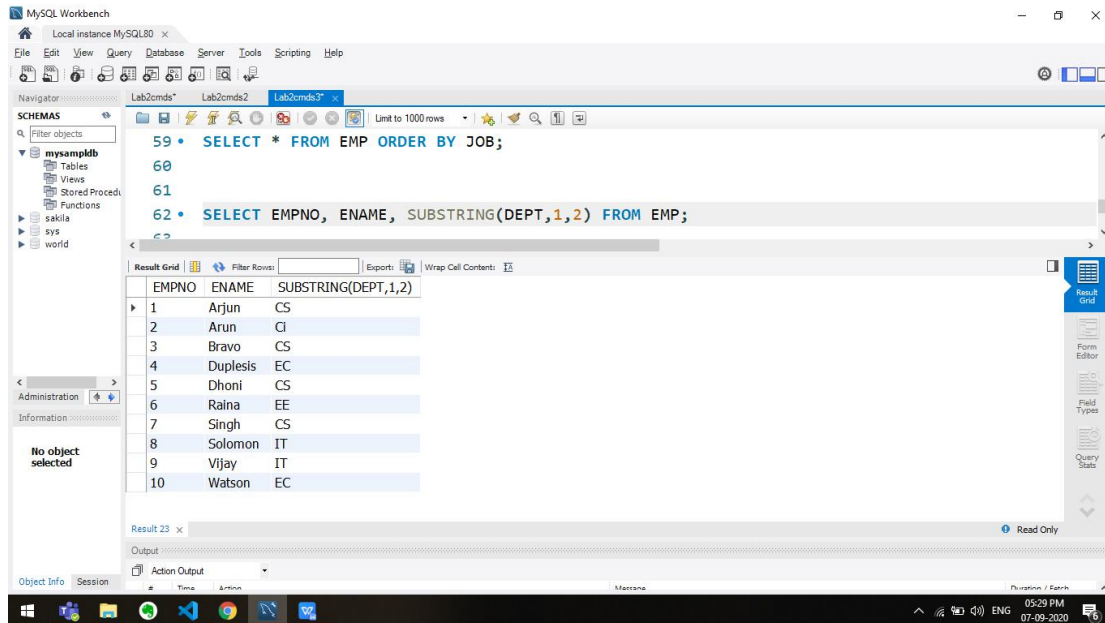
SELECT * FROM EMP ORDER BY DEPT;



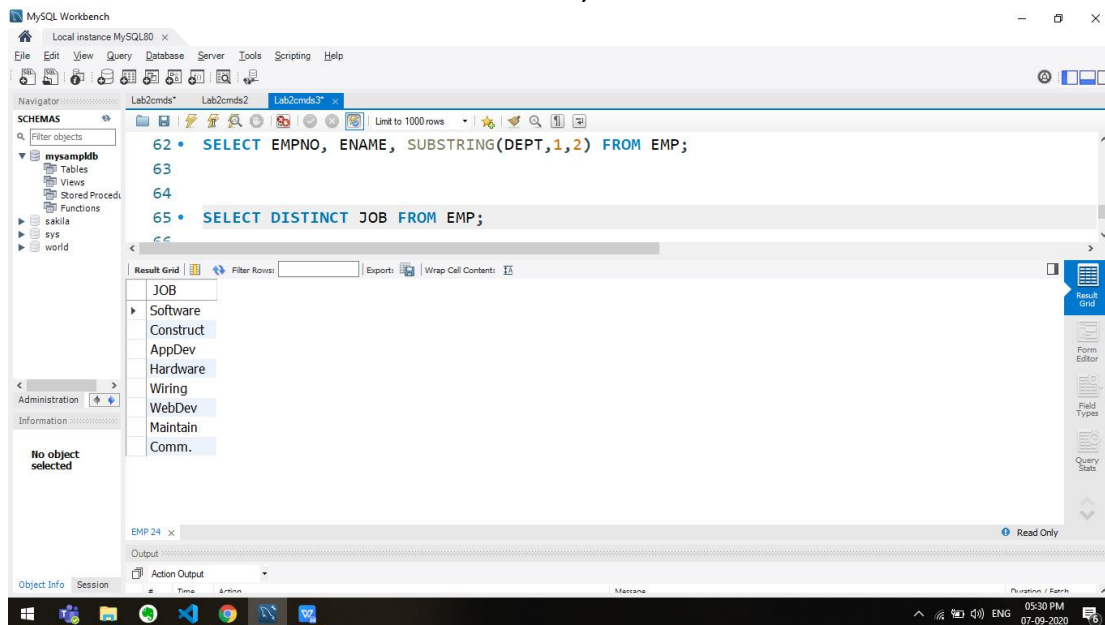
SELECT * FROM EMP ORDER BY JOB;



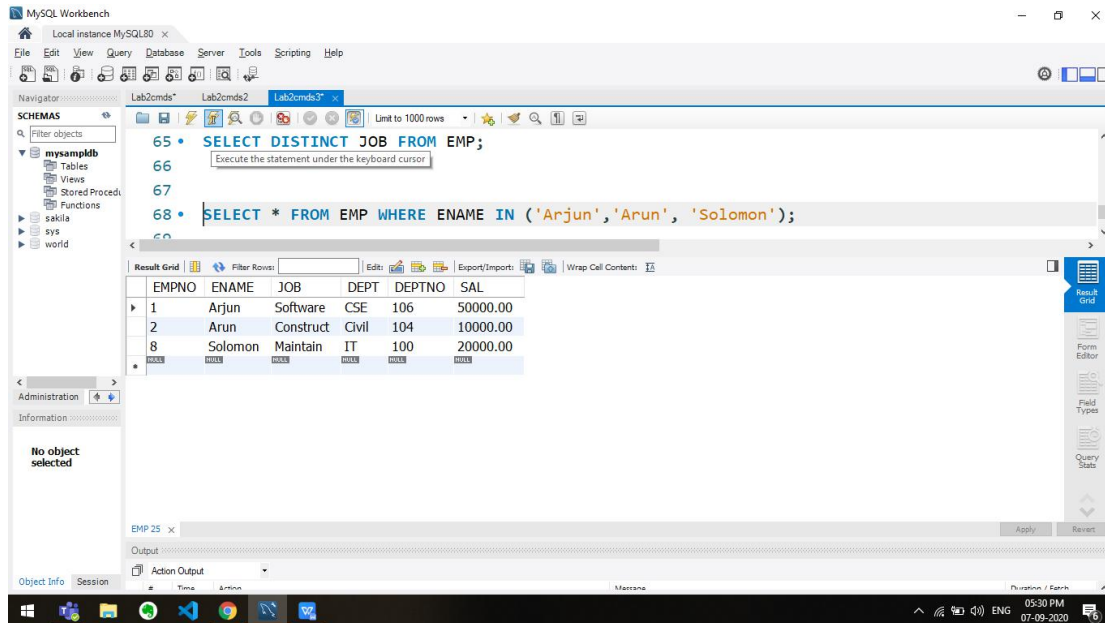
SELECT EMPNO, ENAME, SUBSTRING(DEPT,1,2) FROM EMP;



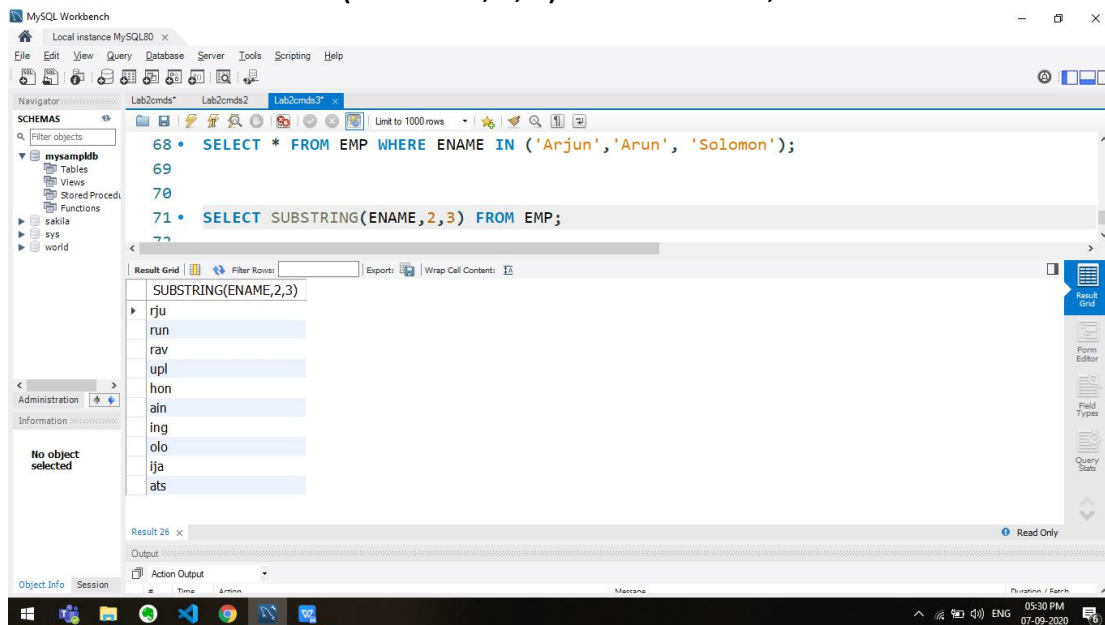
SELECT DISTINCT JOB FROM EMP;



SELECT * FROM EMP WHERE ENAME IN ('Arjun','Arun',
'Solomon');



SELECT SUBSTRING(ENAME,2,3) FROM EMP;



SELECT SUBSTRING(REVERSE(ENAME),5,3) FROM EMP;

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Lab2cmds* Lab2cmds2 Lab2cmds3*

Limit to 1000 rows

71 • `SELECT SUBSTRING(ENAME,2,3) FROM EMP;`
72 Execute the statement under the keyboard cursor
73
74 • `SELECT SUBSTRING(REVERSE(ENAME),5,3) FROM EMP;`

Result Grid

Filter Rows: Export: Wrap Cell Content: 13

SUBSTRING(REVERSE(ENAME),5,

A
B
lpu
D
R
S
loS
V
aW

Result 27 x Read Only

Output

Action Output

Object Info Session Time Action Macro

Navigation / Search

05:31 PM 07-09-2020