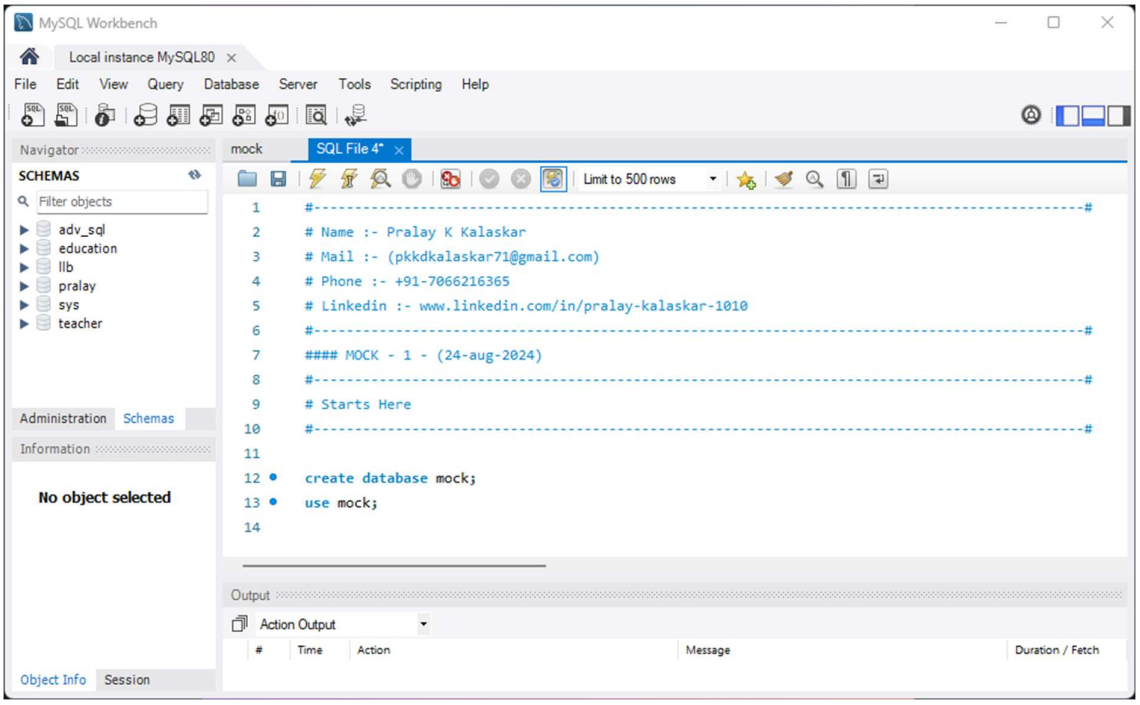
Name :- Pralay K Kalaskar
Mail :- (pkkdkalaskar71@gmail.com)
Phone :- +91-7066216365
Linkedin :- www.linkedin.com/in/pralay-kalaskar-1010

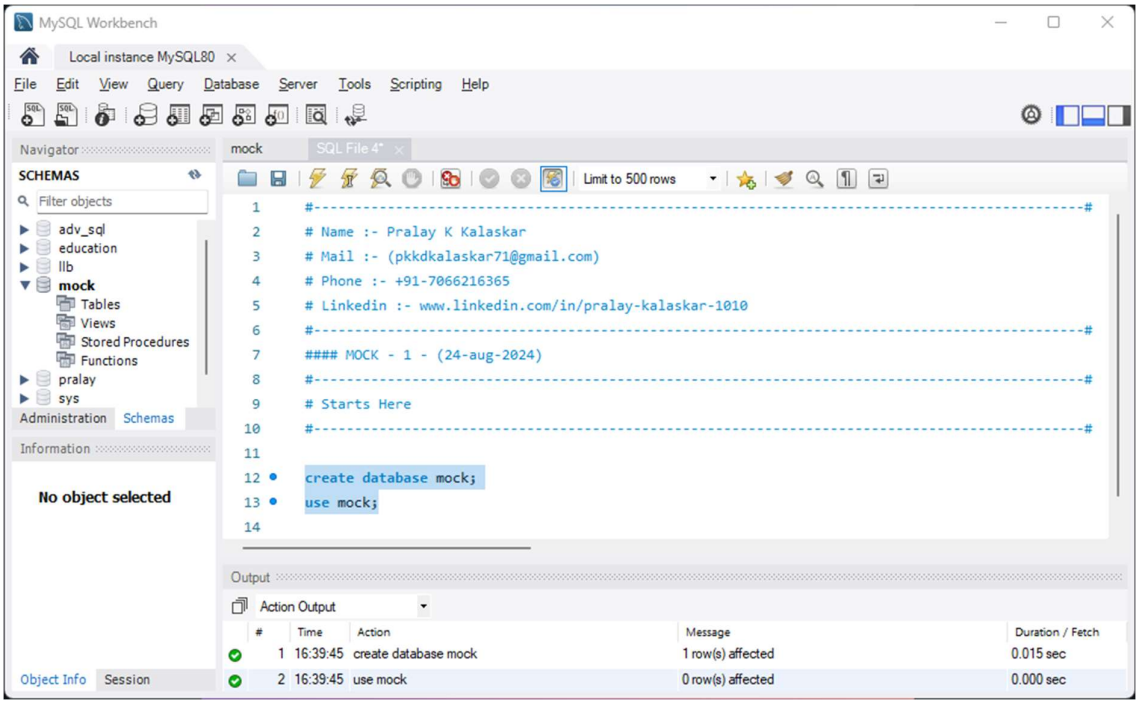
SQL Mock – (24aug2024)

Starts Here :- P.T.O.

SQL

Stuctured Query Language


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
adv_sql
education
llb
pralay
sys
teacher
Administration Schemas
Information
No object selected
Object Info Session
mock
SQL File 4*
Limit to 500 rows
1 #----------#
2 # Name :- Pralay K Kalaskar
3 # Mail :- (pkkdkalaskar71@gmail.com)
4 # Phone :- +91-7066216365
5 # Linkedin :- www.linkedin.com/in/pralay-kalaskar-1010
6 #----------#
7 #### MOCK - 1 - (24-aug-2024)
8 #----------#
9 # Starts Here
10 #----------#
11
12 create database mock;
13 use mock;
14
Output
Action Output
Time Action Message Duration / Fetch


MySQL Workbench
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File Edit View Query Database Server Tools Scripting Help
Navigator
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adv_sql
education
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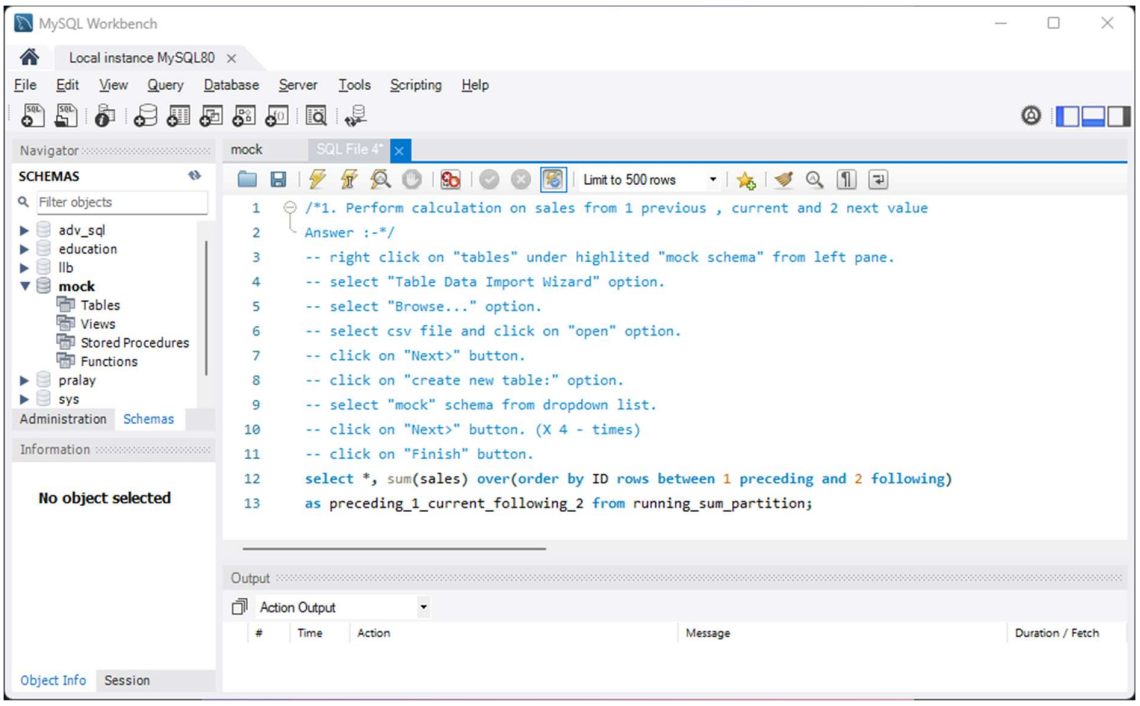
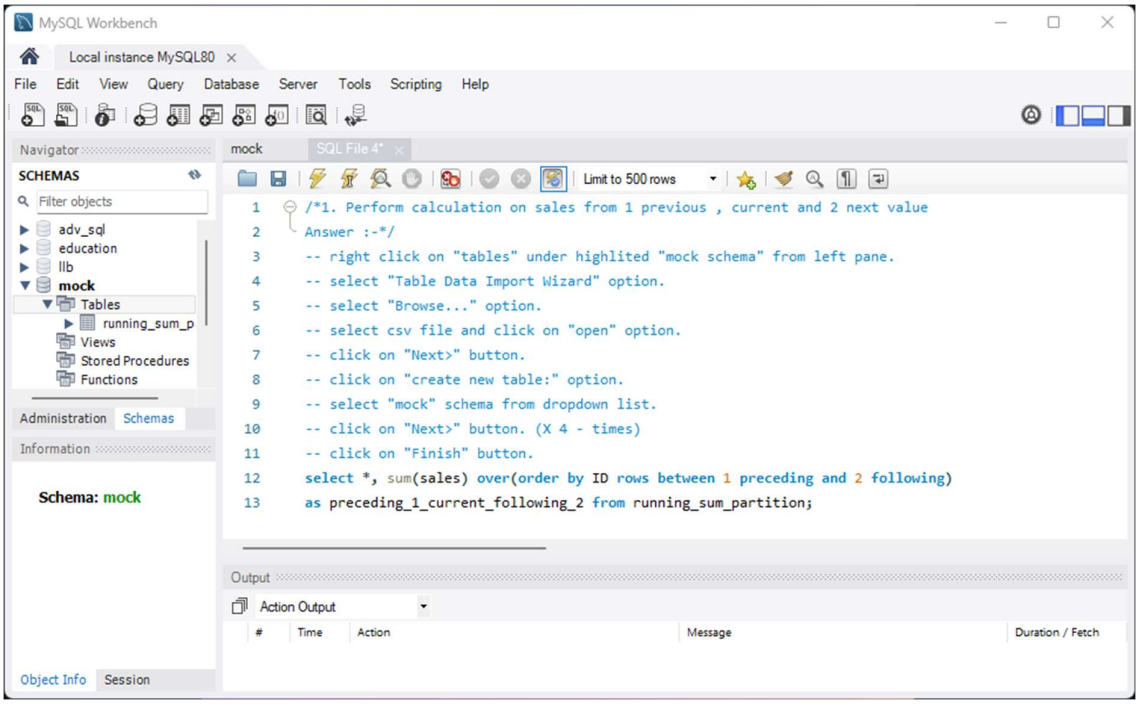
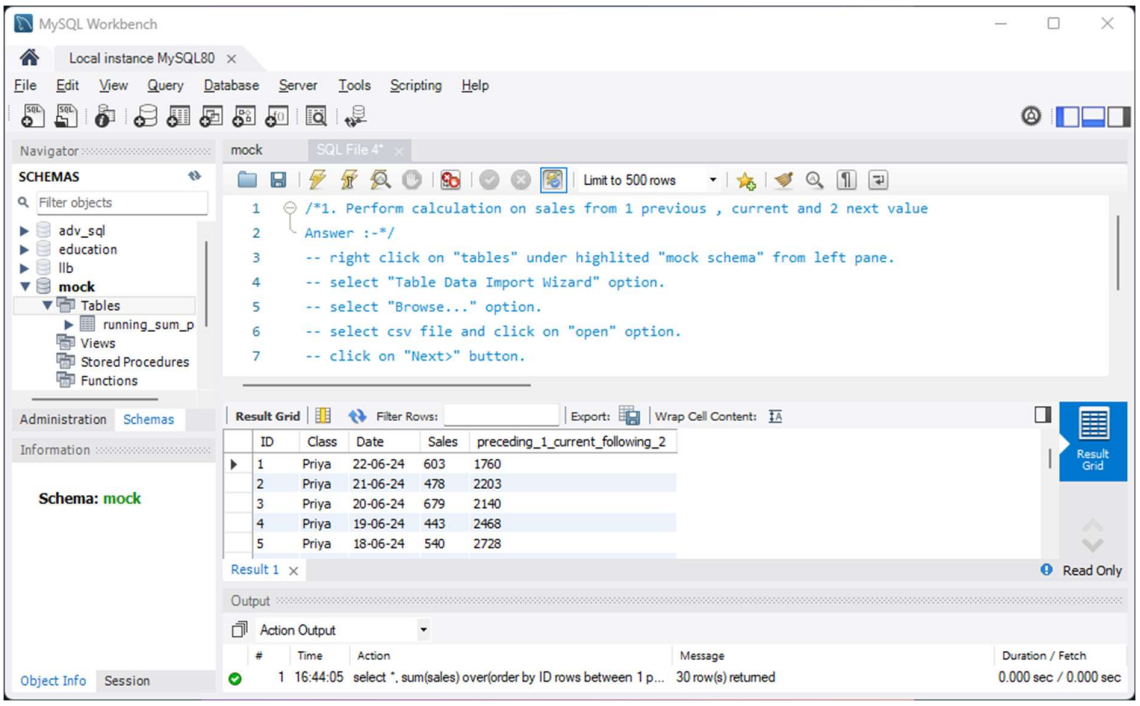
mock
Tables
Views
Stored Procedures
Functions
pralay
sys
Administration Schemas
Information
No object selected
Object Info Session
mock
SQL File 4*
Limit to 500 rows
1 #----------#
2 # Name :- Pralay K Kalaskar
3 # Mail :- (pkkdkalaskar71@gmail.com)
4 # Phone :- +91-7066216365
5 # Linkedin :- www.linkedin.com/in/pralay-kalaskar-1010
6 #----------#
7 #### MOCK - 1 - (24-aug-2024)
8 #----------#
9 # Starts Here
10 #----------#
11
12 create database mock;
13 use mock;
14
Output
Action Output
Time Action Message Duration / Fetch
1 16:39:45 create database mock 1 row(s) affected 0.015 sec
2 16:39:45 use mock 0 row(s) affected 0.000 sec

Question 01 :- Perform calculation on sales from 1 previous , current and 2 next value

Answer :-






MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
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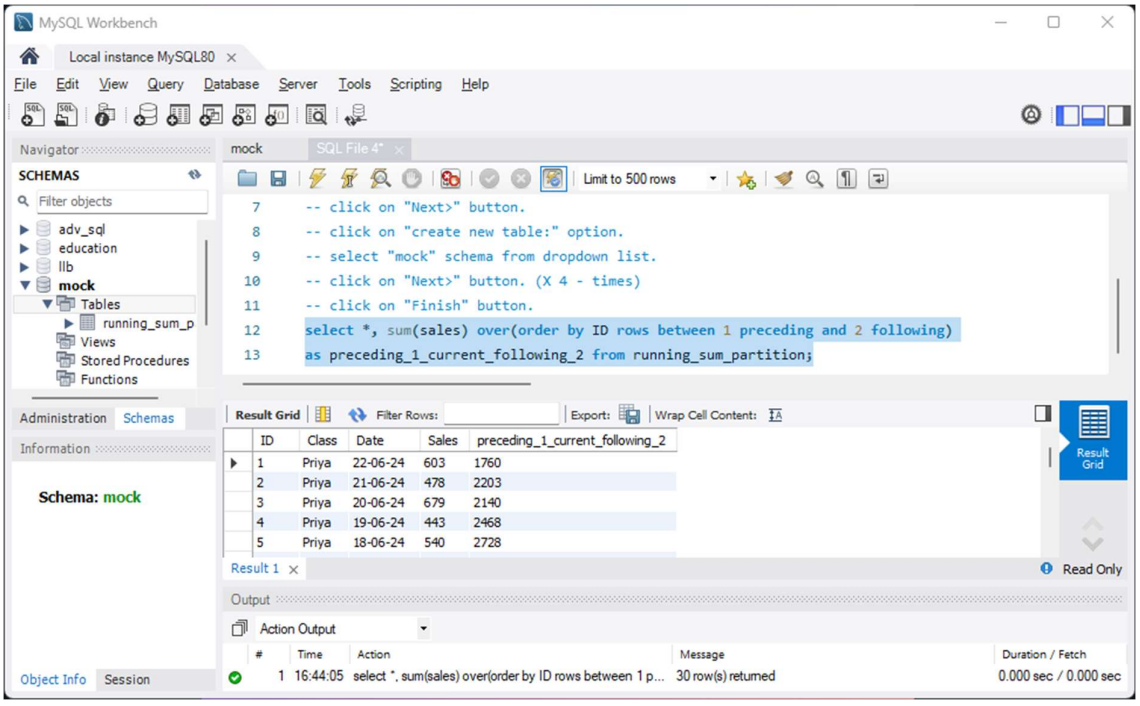
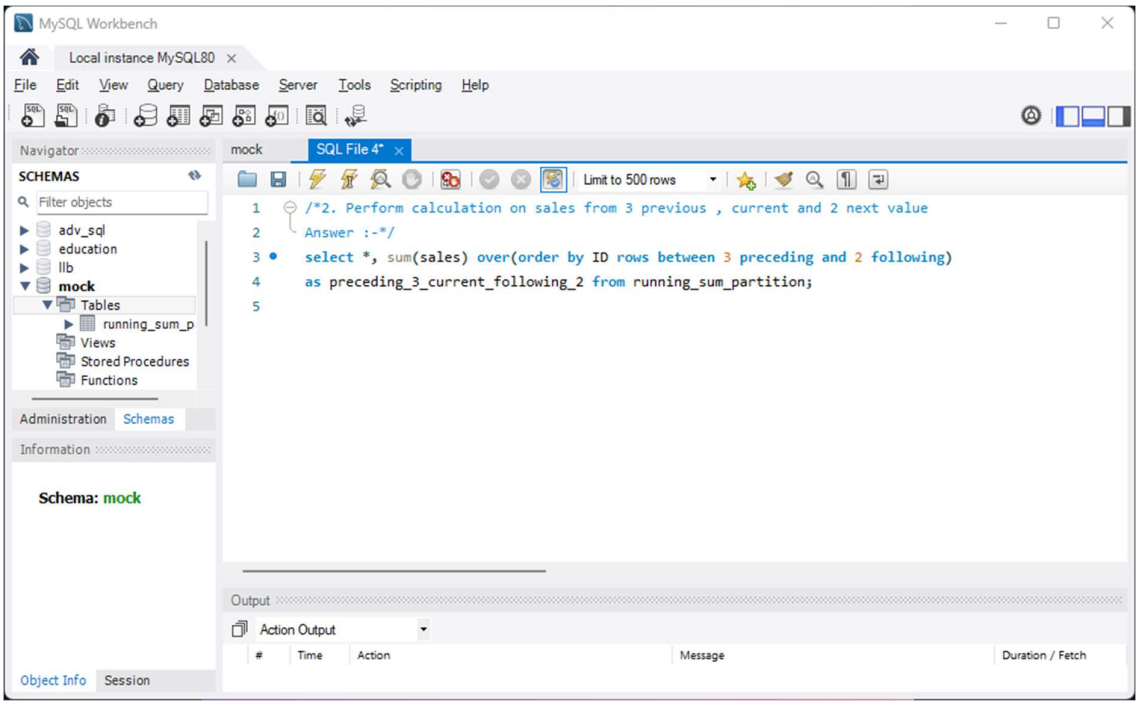
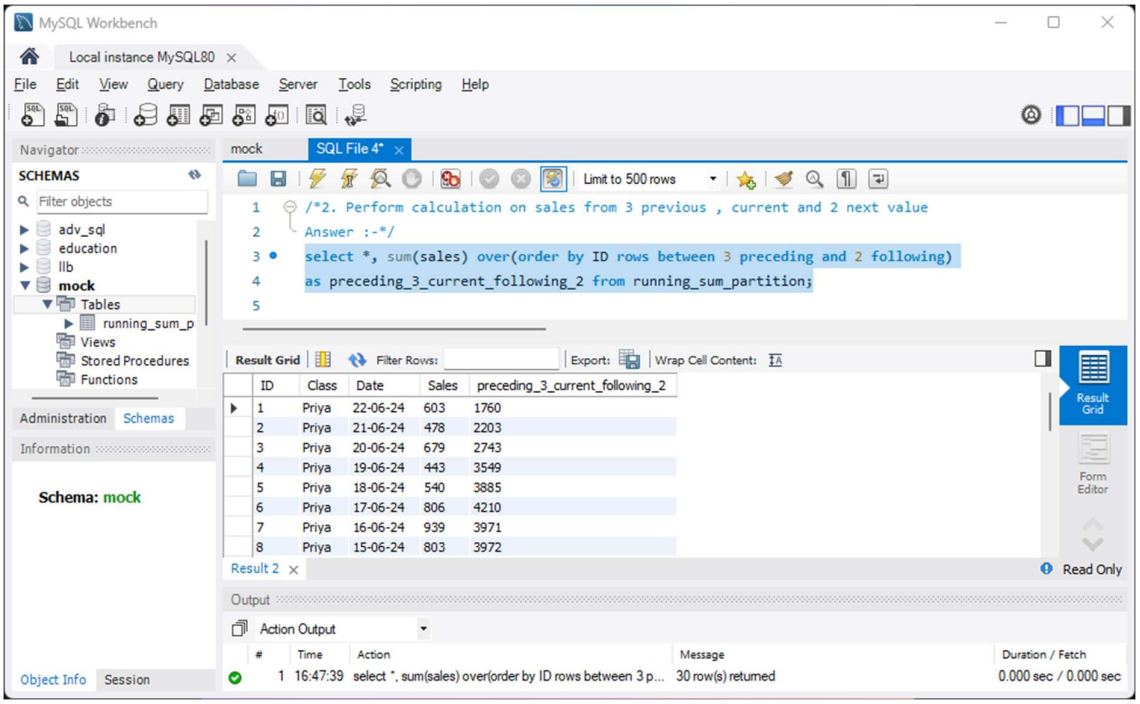
SCHEMAS
Filter objects
adv_sql
education
llb
mock
Tables
running_sum_p
Views
Stored Procedures
Functions
Administration Schemas
Information
Schema: mock
Object Info Session
mock
SQL File 4*
Limit to 500 rows
1 /*1. Perform calculation on sales from 1 previous , current and 2 next value
2 Answer :-*/
3 -- right click on "tables" under highlited "mock schema" from left pane.
4 -- select "Table Data Import Wizard" option.
5 -- select "Browse..." option.
6 -- select csv file and click on "open" option.
7 -- click on "Next>" button.
Result Grid Filter Rows: Export: Wrap Cell Content:
ID Class Date Sales preceding_1_current_following_2
1 Priya 22-06-24 603 1760
2 Priya 21-06-24 478 2203
3 Priya 20-06-24 679 2140
4 Priya 19-06-24 443 2468
5 Priya 18-06-24 540 2728
Result 1
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 16:44:05 select *, sum(sales) over(order by ID rows between 1 p... 30 row(s) returned 0.000 sec / 0.000 sec


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
adv_sql
education
llb
mock
Tables
running_sum_p
Views
Stored Procedures
Functions
Administration Schemas
Information
Schema: mock
Object Info Session
mock
SQL File 4*
Limit to 500 rows
7 -- click on "Next>" button.
8 -- click on "create new table:" option.
9 -- select "mock" schema from dropdown list.
10 -- click on "Next>" button. (X 4 - times)
11 -- click on "Finish" button.
12 select *, sum(sales) over(order by ID rows between 1 preceding and 2 following)
13 as preceding_1_current_following_2 from running_sum_partition;
Result Grid Filter Rows: Export: Wrap Cell Content:
ID Class Date Sales preceding_1_current_following_2
1 Priya 22-06-24 603 1760
2 Priya 21-06-24 478 2203
3 Priya 20-06-24 679 2140
4 Priya 19-06-24 443 2468
5 Priya 18-06-24 540 2728
Result 1
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 16:44:05 select *, sum(sales) over(order by ID rows between 1 p... 30 row(s) returned 0.000 sec / 0.000 sec

Question 02 :- Perform calculation on sales from 3 previous , current and 2 next value

Answer :-





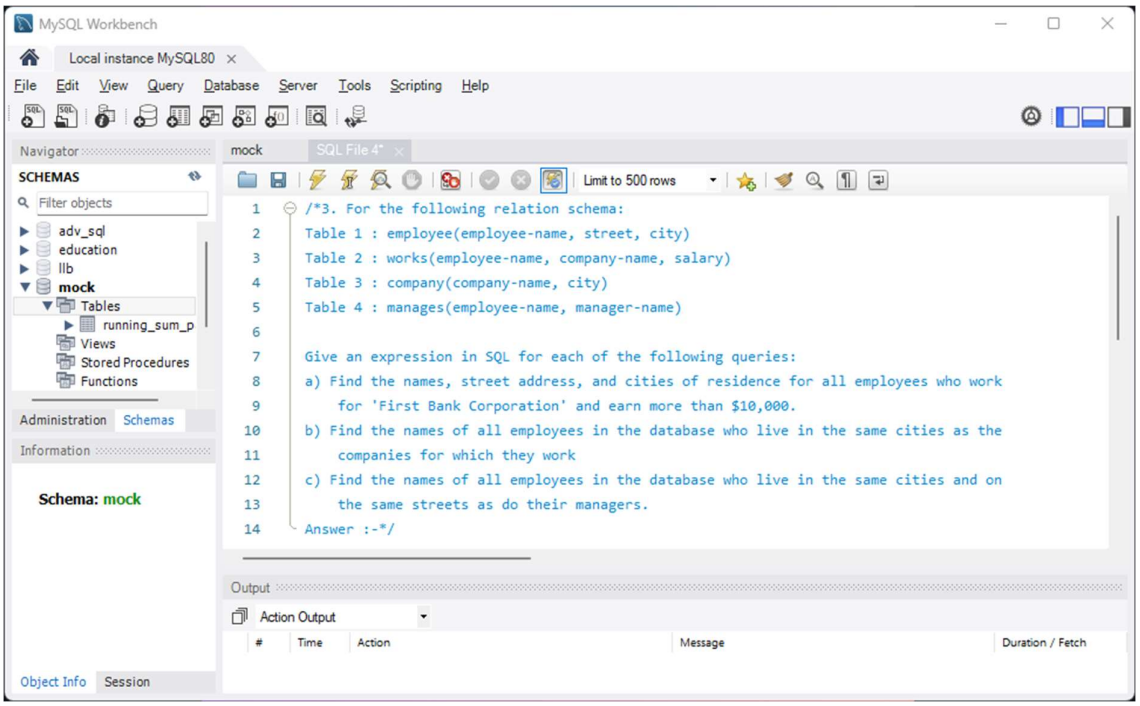
Question 03 :- For the following relation schema :

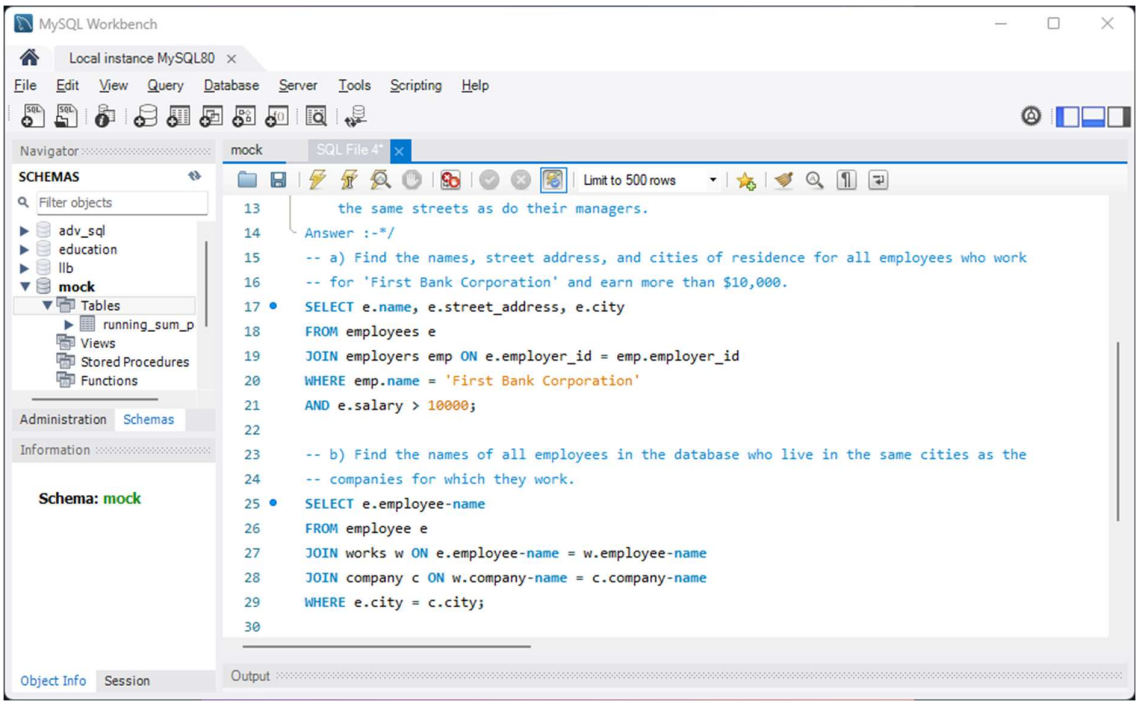
- Table 1 :- employee(employee-name, street, city)
- Table 2 :- works(employee-name, company-name, salary)
- Table 3 :- company(company-name, city)
- Table 4 :- manages(employee-name, manager-name)

Give an expression in SQL for each of the following queries:

a. Find the names, street address, and cities of residence for all employees who work for 'First Bank Corporation' and earn more than $10,000.
b. Find the names of all employees in the database who live in the same cities as the companies for which they work
c. Find the names of all employees in the database who live in the same cities and on the same streets as do their managers.

Answer :-




MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
adv_sql
education
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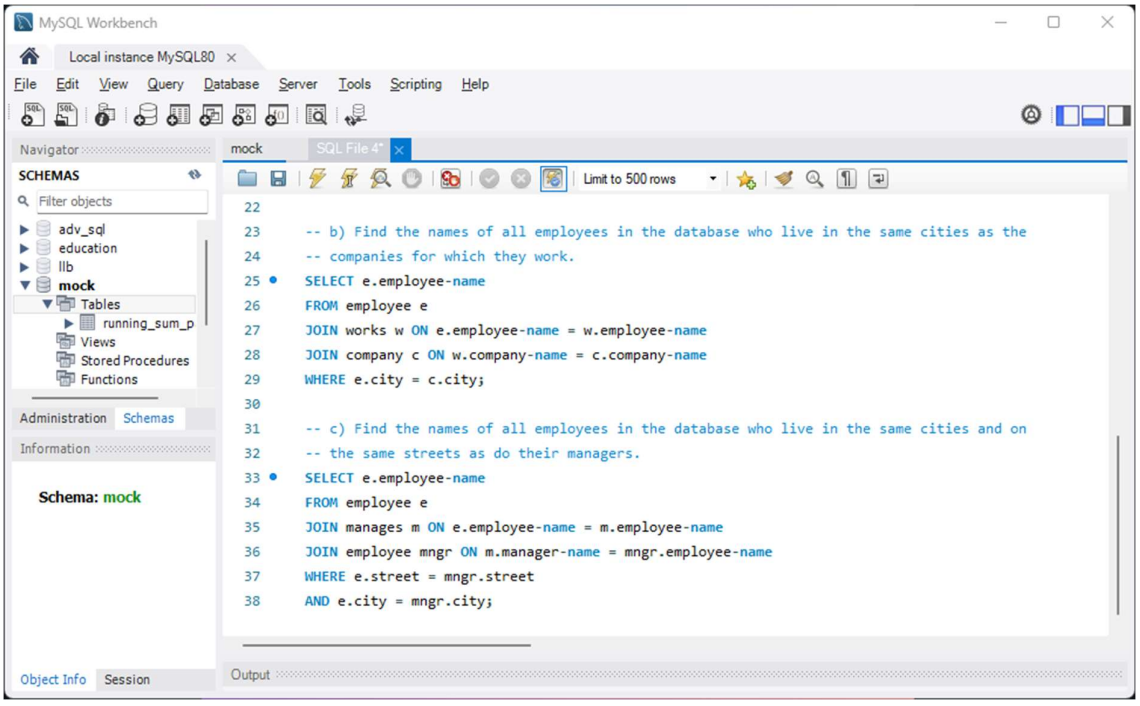
mock
Tables
running_sum_p
Views
Stored Procedures
Functions
Administration Schemas
Information
Schema: mock
Object Info Session
mock
SQL File 4*
Limit to 500 rows
the same streets as do their managers.
Answer :-*/
-- a) Find the names, street address, and cities of residence for all employees who work
-- for 'First Bank Corporation' and earn more than $10,000.
SELECT e.name, e.street_address, e.city
FROM employees e
JOIN employers emp ON e.employer_id = emp.employer_id
WHERE emp.name = 'First Bank Corporation'
AND e.salary > 10000;
-- b) Find the names of all employees in the database who live in the same cities as the
-- companies for which they work.
SELECT e.employee-name
FROM employee e
JOIN works w ON e.employee-name = w.employee-name
JOIN company c ON w.company-name = c.company-name
WHERE e.city = c.city;
Output


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
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Tables
running_sum_p
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Stored Procedures
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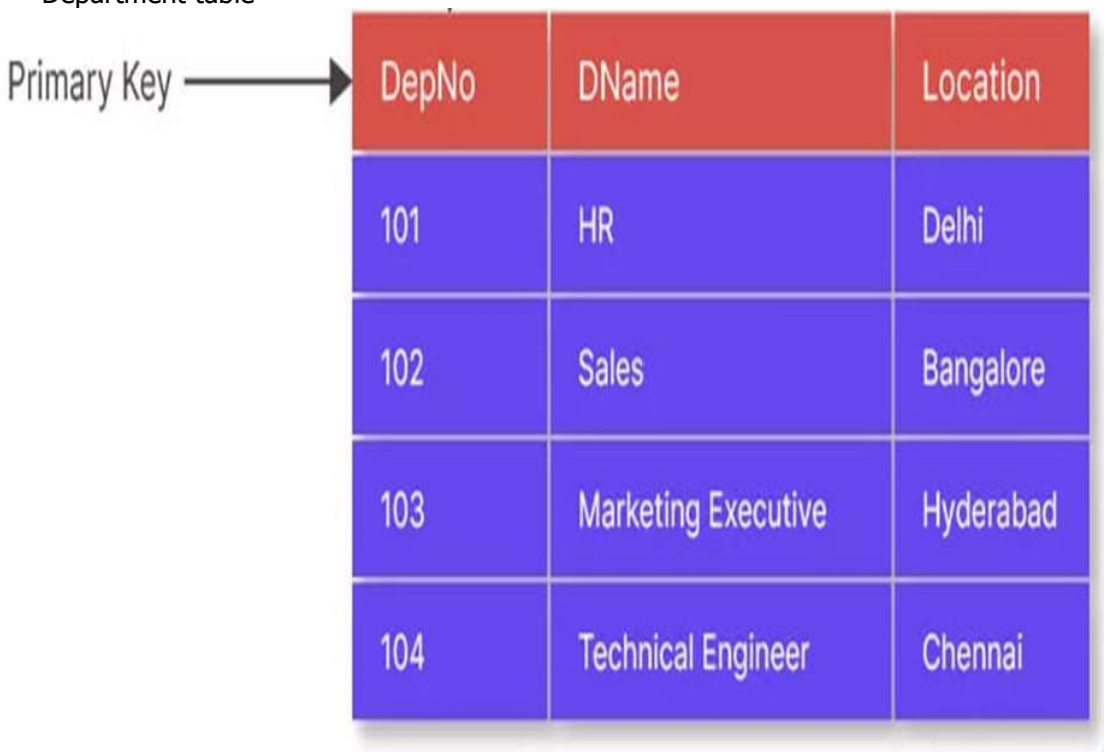
Information
Schema: mock
Object Info Session
mock
SQL File 4*
Limit to 500 rows
-- b) Find the names of all employees in the database who live in the same cities as the
-- companies for which they work.
SELECT e.employee-name
FROM employee e
JOIN works w ON e.employee-name = w.employee-name
JOIN company c ON w.company-name = c.company-name
WHERE e.city = c.city;
-- c) Find the names of all employees in the database who live in the same cities and on
-- the same streets as do their managers.
SELECT e.employee-name
FROM employee e
JOIN manages m ON e.employee-name = m.employee-name
JOIN employee mngr ON m.manager-name = mngr.employee-name
WHERE e.street = mngr.street
AND e.city = mngr.city;
Output

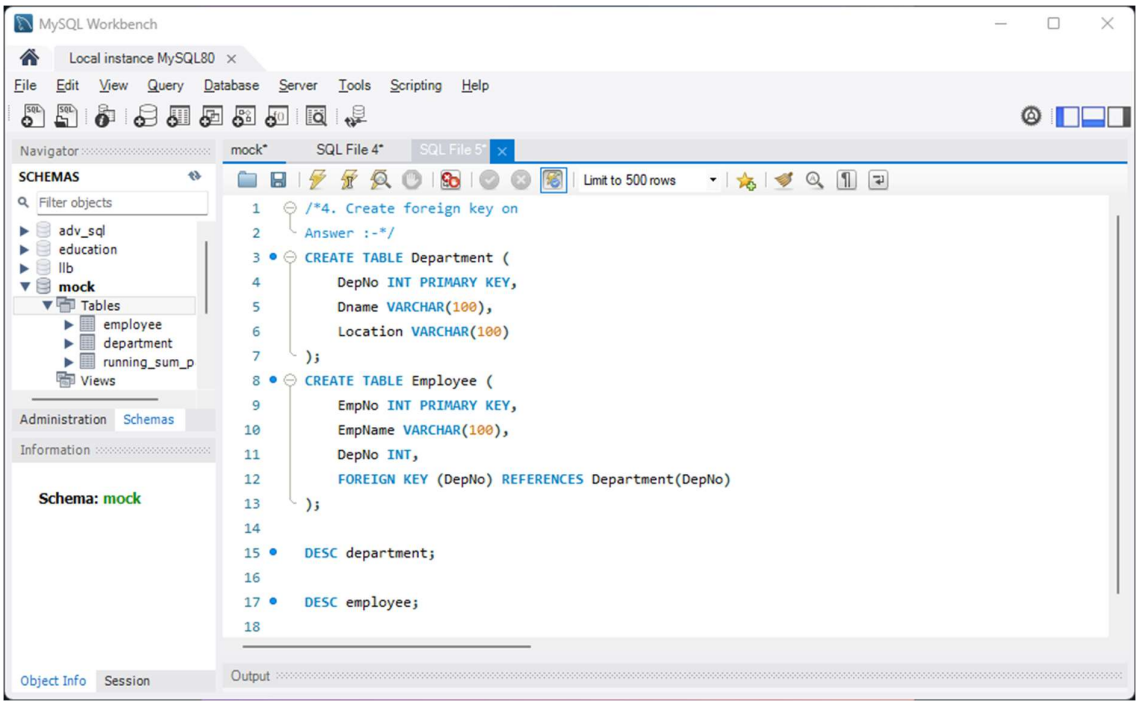
Question 04 :- Create foreign key on :

- Department table



- Employee table

Answer :-


MySQL Workbench
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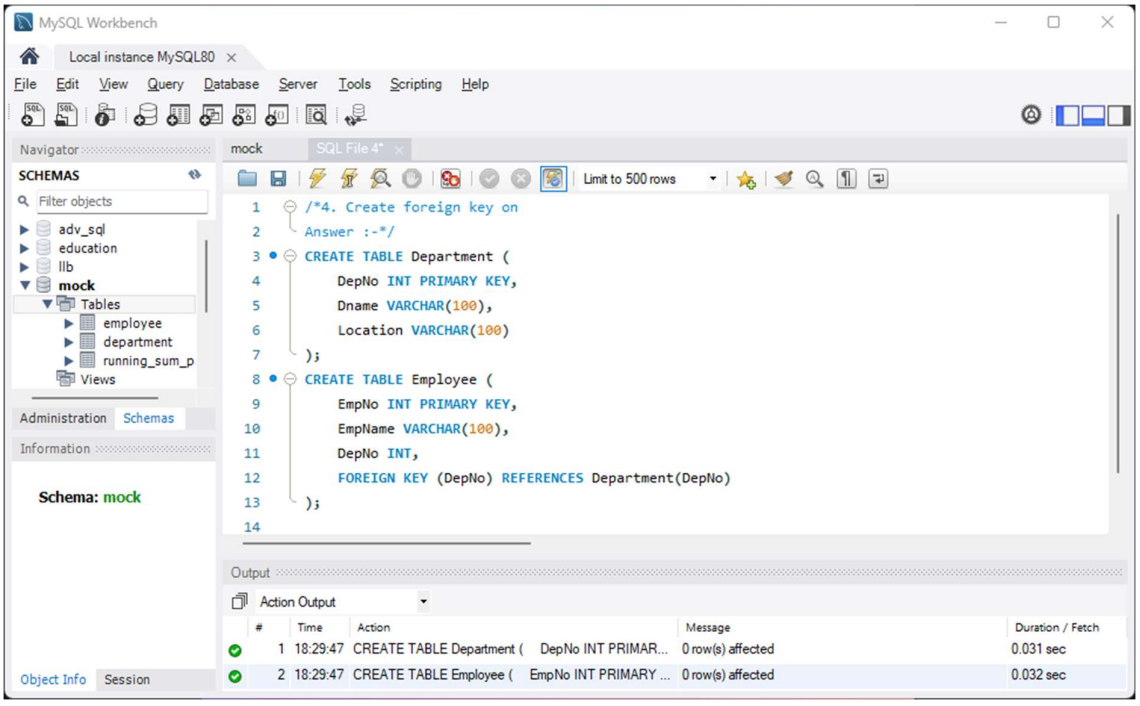
Tables
employee
department
running_sum_p
Views
Administration Schemas
Information
Schema: mock
Object Info Session
mock* SQL File 4* SQL File 5*
Limit to 500 rows
1 /*4. Create foreign key on
2 Answer :-*/
3 CREATE TABLE Department (
4 DepNo INT PRIMARY KEY,
5 Dname VARCHAR(100),
6 Location VARCHAR(100)
7);
8 CREATE TABLE Employee (
9 EmpNo INT PRIMARY KEY,
10 EmpName VARCHAR(100),
11 DepNo INT,
12 FOREIGN KEY (DepNo) REFERENCES Department(DepNo)
13);
14
15 DESC department;
16
17 DESC employee;
18
Output


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
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education
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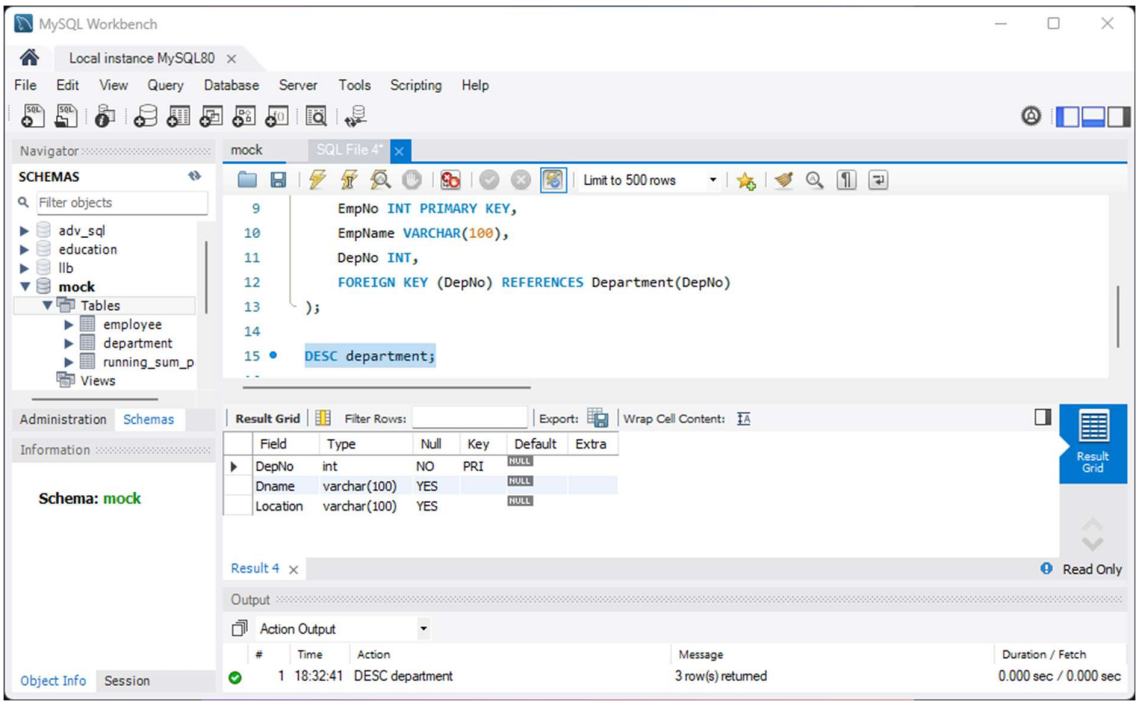
mock
Tables
employee
department
running_sum_p
Views
Administration Schemas
Information
Schema: mock
Object Info Session
mock SQL File 4*
Limit to 500 rows
1 /*4. Create foreign key on
2 Answer :-*/
3 CREATE TABLE Department (
4 DepNo INT PRIMARY KEY,
5 Dname VARCHAR(100),
6 Location VARCHAR(100)
7);
8 CREATE TABLE Employee (
9 EmpNo INT PRIMARY KEY,
10 EmpName VARCHAR(100),
11 DepNo INT,
12 FOREIGN KEY (DepNo) REFERENCES Department(DepNo)
13);
14
Output
Action Output
Time Action Message Duration / Fetch
1 18:29:47 CREATE TABLE Department (DepNo INT PRIMAR... 0 row(s) affected 0.031 sec
2 18:29:47 CREATE TABLE Employee (EmpNo INT PRIMARY ... 0 row(s) affected 0.032 sec


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
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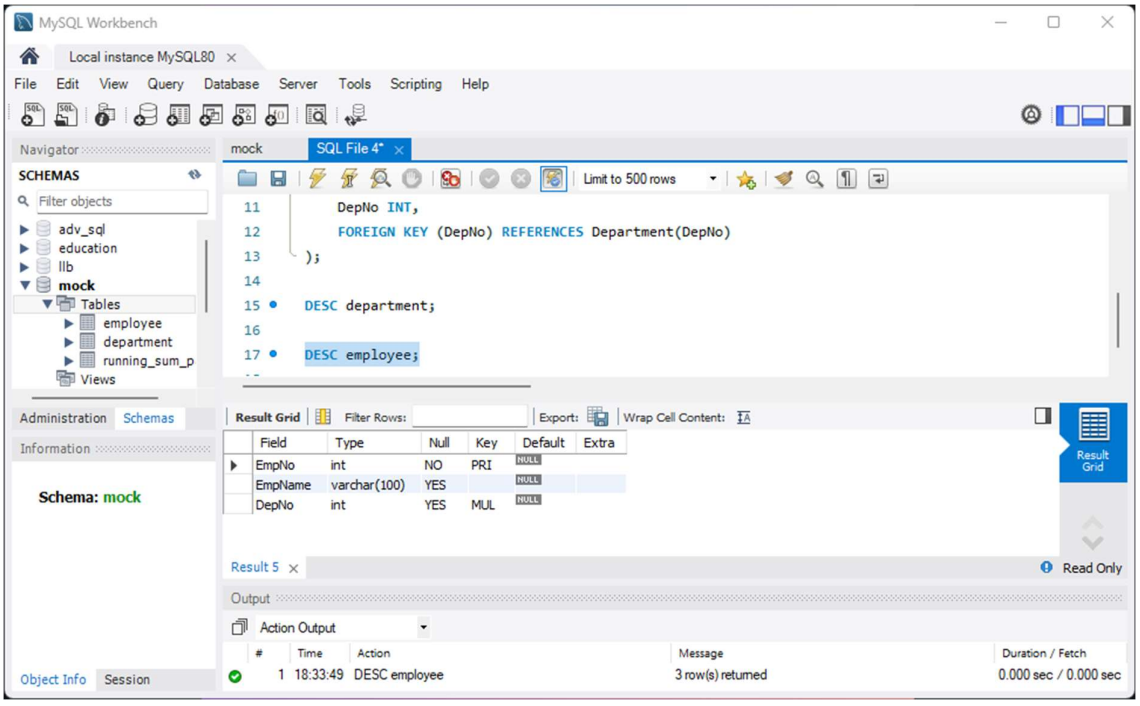
Tables
employee
department
running_sum_p
Views
Administration Schemas
Information
Schema: mock
Object Info Session
mock
SQL File 4*
Limit to 500 rows
9 EmpNo INT PRIMARY KEY,
10 EmpName VARCHAR(100),
11 DepNo INT,
12 FOREIGN KEY (DepNo) REFERENCES Department(DepNo)
13);
14
15 DESC department;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Field Type Null Key Default Extra
DepNo int NO PRI NULL
Dname varchar(100) YES NULL
Location varchar(100) YES NULL
Result Grid
Result 4
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 18:32:41 DESC department 3 row(s) returned 0.000 sec / 0.000 sec


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
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Filter objects
adv_sql
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Tables
employee
department
running_sum_p
Views
Administration Schemas
Information
Schema: mock
Object Info Session
mock
SQL File 4*
Limit to 500 rows
11 DepNo INT,
12 FOREIGN KEY (DepNo) REFERENCES Department(DepNo)
13);
14
15 DESC department;
16
17 DESC employee;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Field Type Null Key Default Extra
EmpNo int NO PRI NULL
EmpName varchar(100) YES NULL
DepNo int YES MUL NULL
Result Grid
Result 5
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 18:33:49 DESC employee 3 row(s) returned 0.000 sec / 0.000 sec

Question 05 :- Create foreign key on student id in Library :

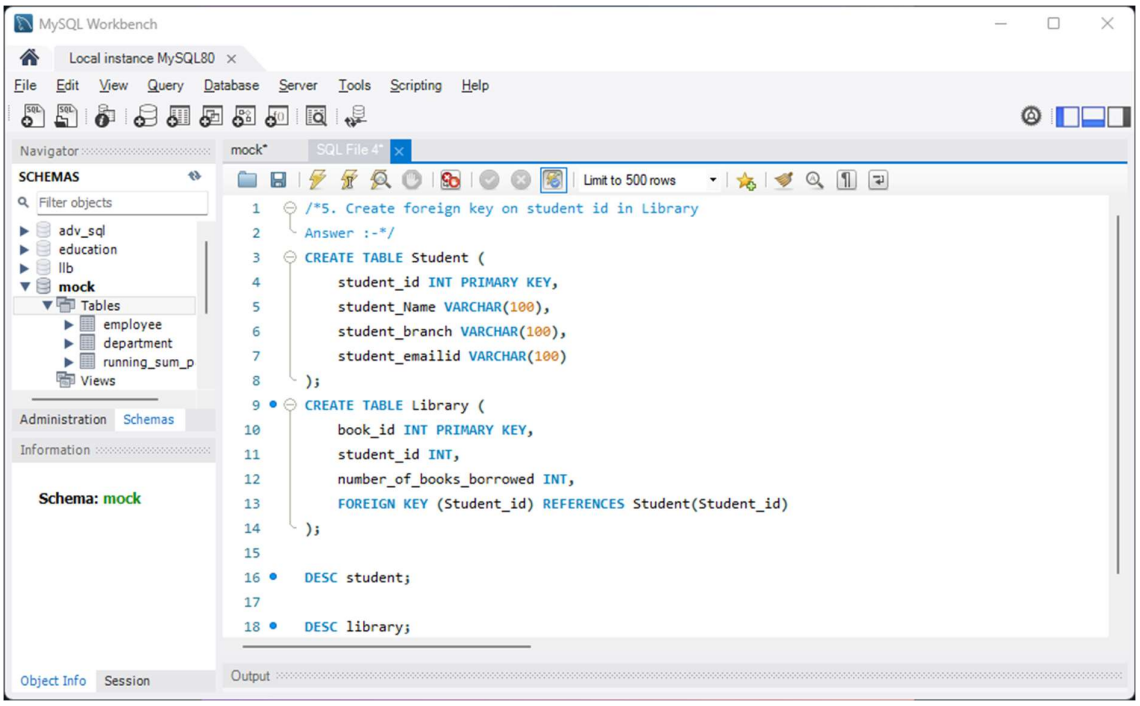
- Student table

student_id	student_name	student_branch	student_emailid
100	Riya	CSE	riya@xyz.com
101	Aman	CSE	aman@xyz.com
102	Deepak	Mech	deepak@xyz.com
103	Barkha	IT	barkha@xyz.com

- Library table

book_id	student_id	number_of_books_borrowed
200	100	9
201	101	15
202	102	7
203	103	0

Answer :-


MySQL Workbench
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File Edit View Query Database Server Tools Scripting Help
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Tables
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department
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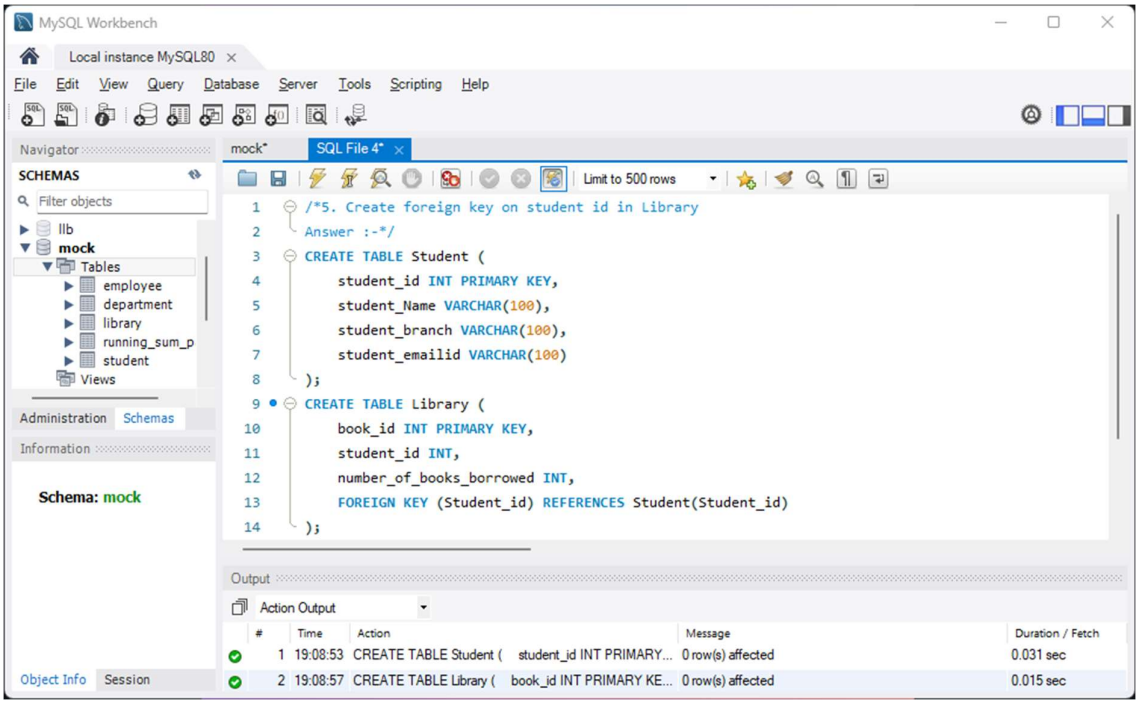
Views
Administration Schemas
Information
Schema: mock
Object Info Session
mock*
SQL File 4*
Limit to 500 rows
1 /*5. Create foreign key on student id in Library
2 Answer :-*/
3 CREATE TABLE Student (
4 student_id INT PRIMARY KEY,
5 student_Name VARCHAR(100),
6 student_branch VARCHAR(100),
7 student_emailid VARCHAR(100)
8);
9 CREATE TABLE Library (
10 book_id INT PRIMARY KEY,
11 student_id INT,
12 number_of_books_borrowed INT,
13 FOREIGN KEY (Student_id) REFERENCES Student(Student_id)
14);
16 DESC student;
18 DESC library;
Output


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
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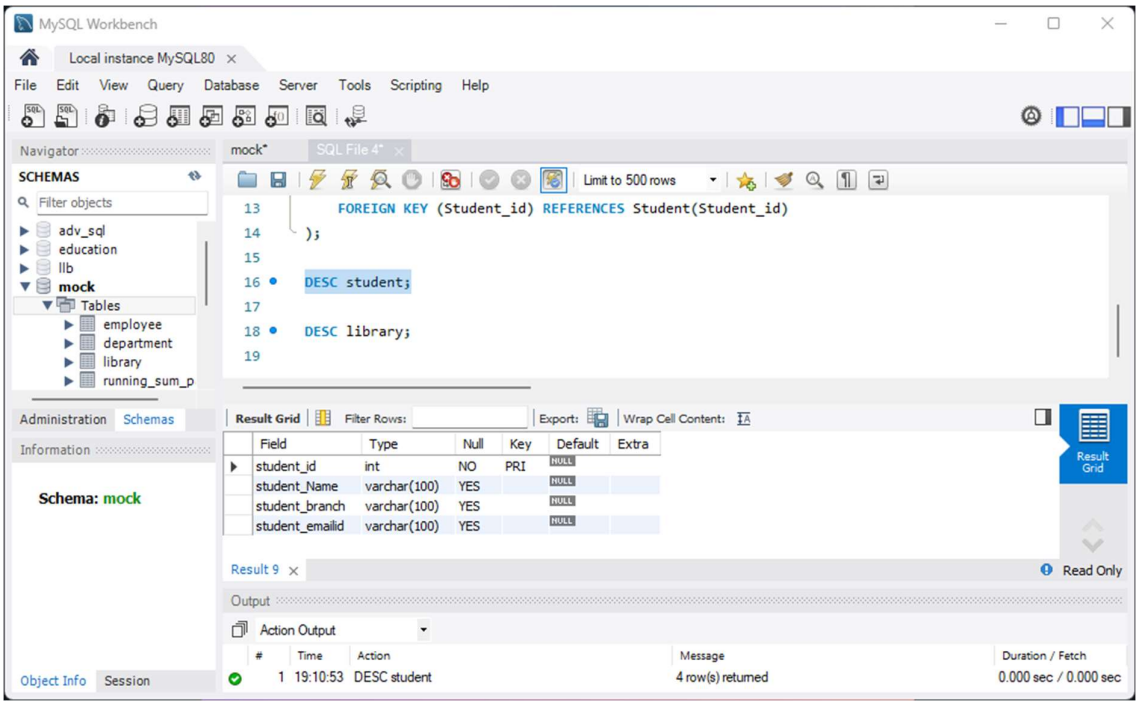
SCHEMAS
Filter objects
llb
mock
Tables
employee
department
library
running_sum_p
student
Views
Administration Schemas
Information
Schema: mock
Object Info Session
mock*
SQL File 4*
Limit to 500 rows
1 /*5. Create foreign key on student id in Library
2 Answer :-*/
3 CREATE TABLE Student (
4 student_id INT PRIMARY KEY,
5 student_Name VARCHAR(100),
6 student_branch VARCHAR(100),
7 student_emailid VARCHAR(100)
8);
9 CREATE TABLE Library (
10 book_id INT PRIMARY KEY,
11 student_id INT,
12 number_of_books_borrowed INT,
13 FOREIGN KEY (Student_id) REFERENCES Student(Student_id)
14);
Output
Action Output
Time Action Message Duration / Fetch
1 19:08:53 CREATE TABLE Student (student_id INT PRIMARY... 0 row(s) affected 0.031 sec
2 19:08:57 CREATE TABLE Library (book_id INT PRIMARY KE... 0 row(s) affected 0.015 sec


MySQL Workbench
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File Edit View Query Database Server Tools Scripting Help
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Filter objects
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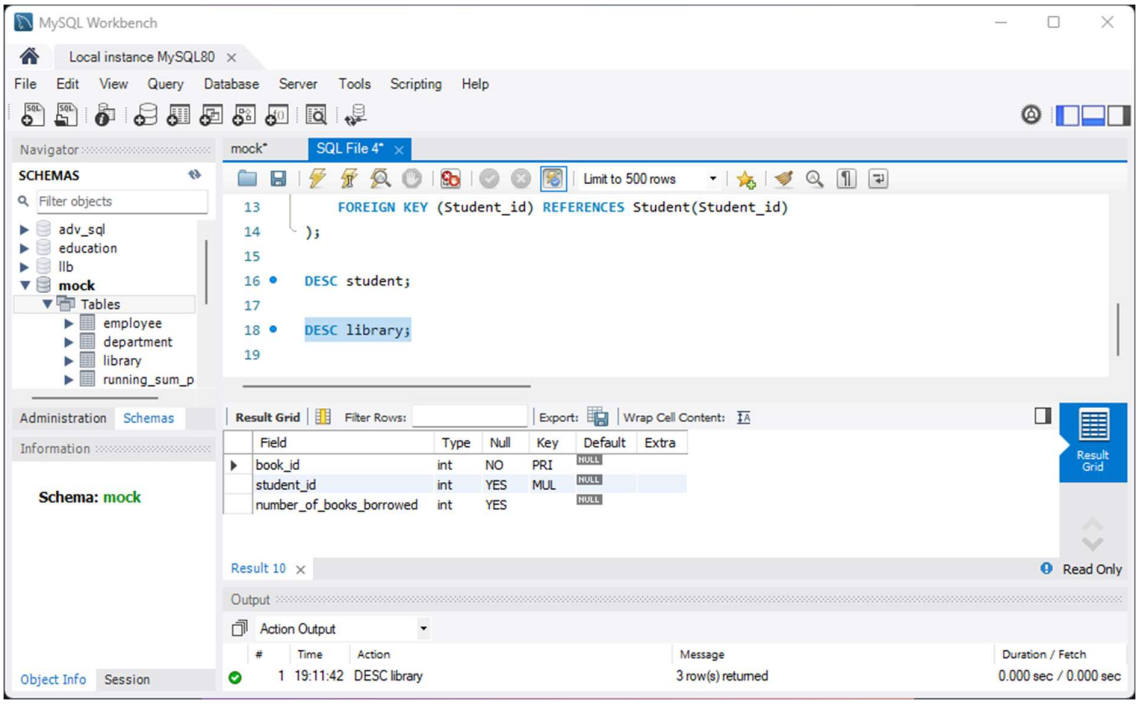
llb
mock
Tables
employee
department
library
running_sum_p
Administration Schemas
Information
Schema: mock
Object Info Session
mock* SQL File 4*
Limit to 500 rows
13 FOREIGN KEY (Student_id) REFERENCES Student(Student_id)
14);
15
16 DESC student;
17
18 DESC library;
19
Result Grid Filter Rows: Export: Wrap Cell Content:
Field Type Null Key Default Extra
student_id int NO PRI NULL
student_Name varchar(100) YES NULL
student_branch varchar(100) YES NULL
student_emailid varchar(100) YES NULL
Result 9
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 19:10:53 DESC student 4 row(s) returned 0.000 sec / 0.000 sec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Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
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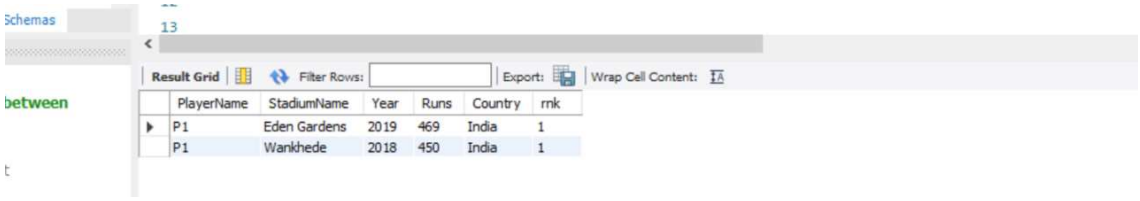
adv_sql
education
llb
mock
Tables
employee
department
library
running_sum_p
Administration Schemas
Information
Schema: mock
Object Info Session
mock* SQL File 4*
Limit to 500 rows
13 FOREIGN KEY (Student_id) REFERENCES Student(Student_id)
14);
15
16 DESC student;
17
18 DESC library;
19
Result Grid Filter Rows: Export: Wrap Cell Content:
Field Type Null Key Default Extra
book_id int NO PRI NULL
student_id int YES MUL NULL
number_of_books_borrowed int YES NULL
Result 10
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 19:11:42 DESC library 3 row(s) returned 0.000 sec / 0.000 sec

Question 06 :- Get the output using table partition_by_ground_yr_ind_orde



Schemas

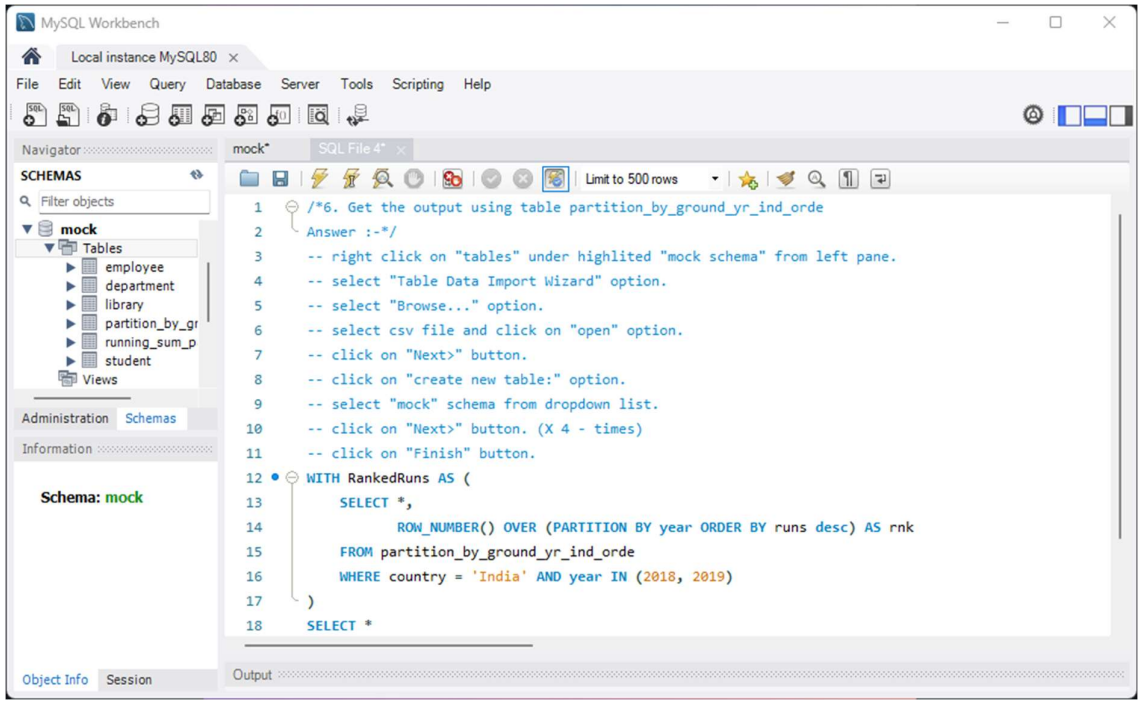
13

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

between

PlayerName	StadiumName	Year	Runs	Country	rnk
P1	Eden Gardens	2019	469	India	1
P1	Wankhede	2018	450	India	1

Answer :-



MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

mock

Tables

employee

department

library

partition_by_gr

running_sum_p

student

Views

Administration Schemas

Information

Schema: mock

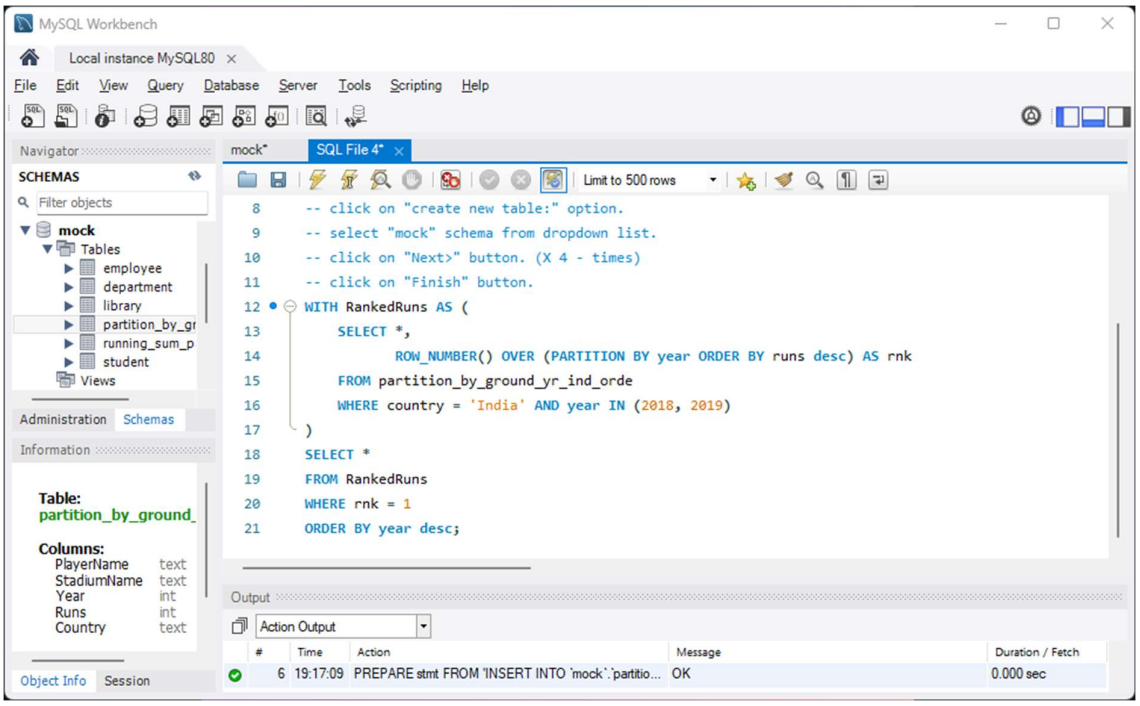
Object Info Session

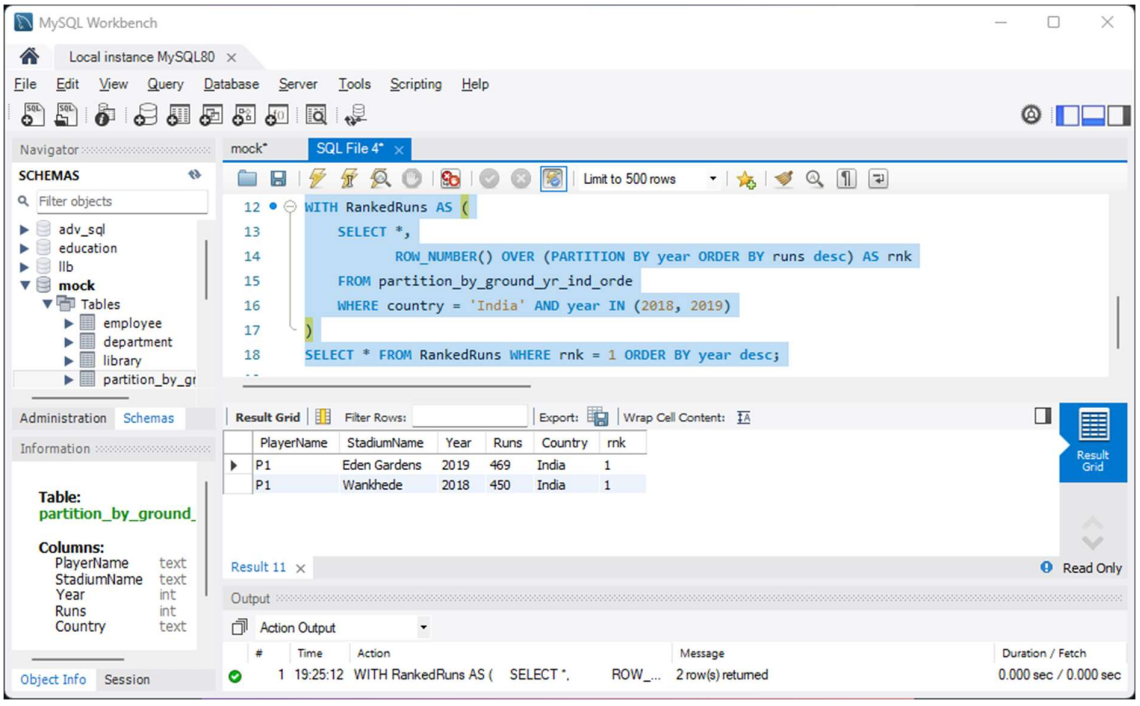
mock* SQL File 4*

Limit to 500 rows

```
1  /*6. Get the output using table partition_by_ground_yr_ind_orde
2  Answer :-*/
3     -- right click on "tables" under highlited "mock schema" from left pane.
4     -- select "Table Data Import Wizard" option.
5     -- select "Browse..." option.
6     -- select csv file and click on "open" option.
7     -- click on "Next>" button.
8     -- click on "create new table:" option.
9     -- select "mock" schema from dropdown list.
10    -- click on "Next>" button. (X 4 - times)
11    -- click on "Finish" button.
12 WITH RankedRuns AS (
13        SELECT *,
14               ROW_NUMBER() OVER (PARTITION BY year ORDER BY runs desc) AS rnk
15        FROM partition_by_ground_yr_ind_orde
16        WHERE country = 'India' AND year IN (2018, 2019)
17    )
18    SELECT *
```

Output


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
mock
Tables
employee
department
library
partition_by_gr
running_sum_p
student
Views
Administration Schemas
Information
Table:
partition_by_ground_
Columns:
PlayerName text
StadiumName text
Year int
Runs int
Country text
Object Info Session
mock* SQL File 4*
Limit to 500 rows
8 -- click on "create new table:" option.
9 -- select "mock" schema from dropdown list.
10 -- click on "Next>" button. (X 4 - times)
11 -- click on "Finish" button.
12 WITH RankedRuns AS (
13 SELECT *,
14 ROW_NUMBER() OVER (PARTITION BY year ORDER BY runs desc) AS rnk
15 FROM partition_by_ground_yr_ind_orde
16 WHERE country = 'India' AND year IN (2018, 2019)
17)
18 SELECT *
19 FROM RankedRuns
20 WHERE rnk = 1
21 ORDER BY year desc;
Output
Action Output
Time Action Message Duration / Fetch
6 19:17:09 PREPARE stmt FROM 'INSERT INTO `mock`.`partitio... OK 0.000 sec

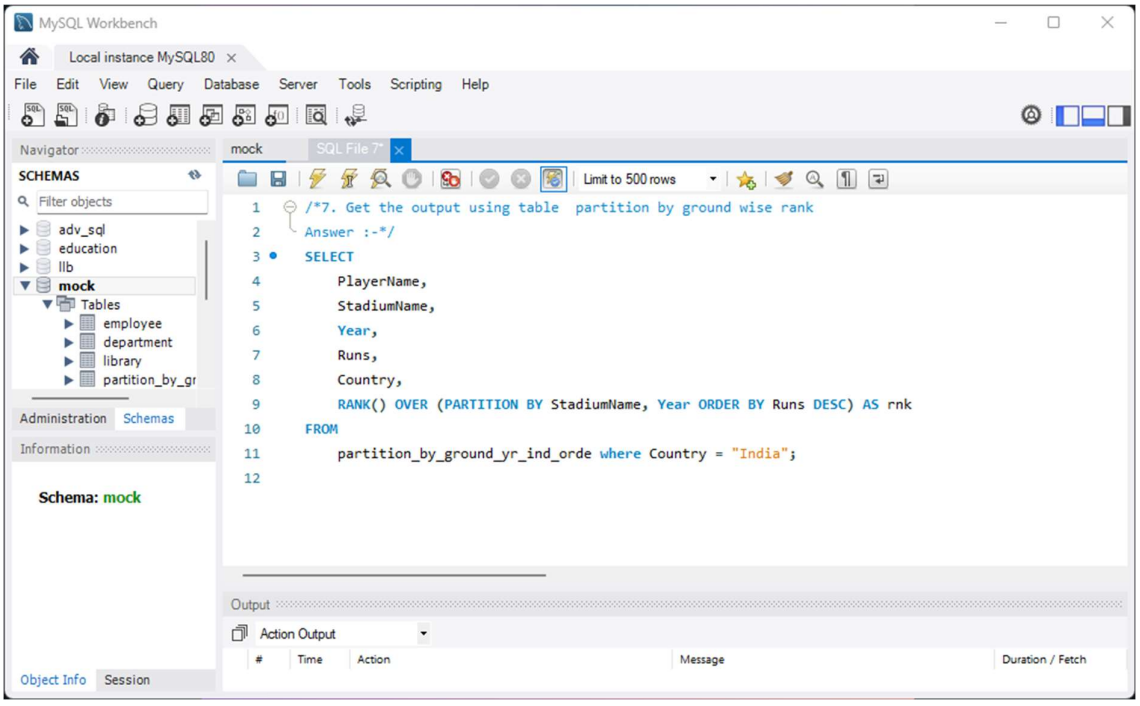

MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
adv_sql
education
llb
mock
Tables
employee
department
library
partition_by_gr
Administration Schemas
Information
Table:
partition_by_ground_
Columns:
PlayerName text
StadiumName text
Year int
Runs int
Country text
Object Info Session
mock* SQL File 4*
Limit to 500 rows
12 WITH RankedRuns AS (
13 SELECT *,
14 ROW_NUMBER() OVER (PARTITION BY year ORDER BY runs desc) AS rnk
15 FROM partition_by_ground_yr_ind_orde
16 WHERE country = 'India' AND year IN (2018, 2019)
17)
18 SELECT * FROM RankedRuns WHERE rnk = 1 ORDER BY year desc;
Result Grid Filter Rows: Export: Wrap Cell Content:
PlayerName StadiumName Year Runs Country rnk
P1 Eden Gardens 2019 469 India 1
P1 Wankhede 2018 450 India 1
Result Grid
Result 11
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 19:25:12 WITH RankedRuns AS (SELECT *, ROW_... 2 row(s) returned 0.000 sec / 0.000 sec

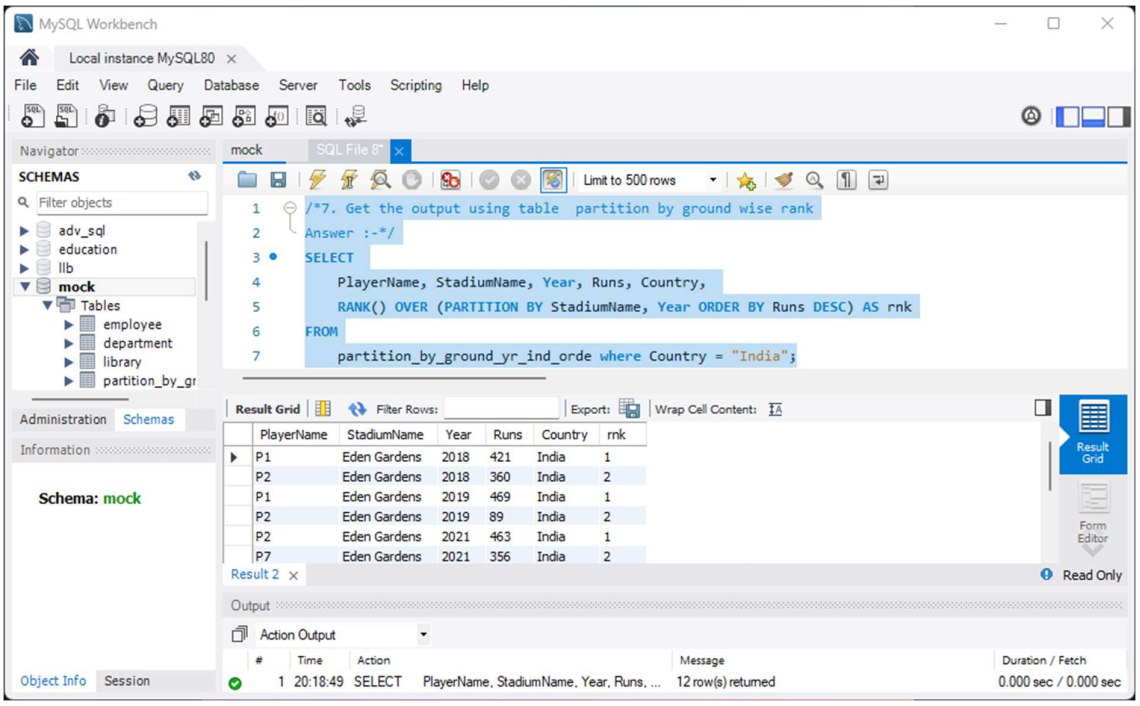
Question 07 :- Get the output using table partition_by_ground_yr_ind_orde

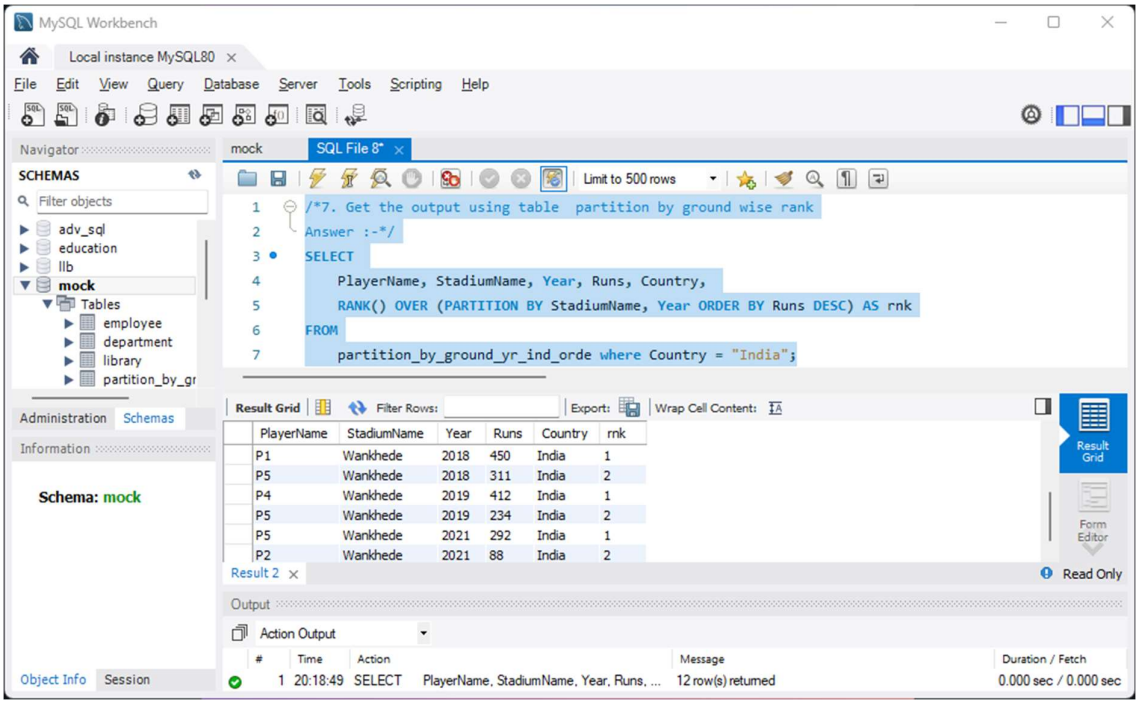
Result Grid | Filter Rows: | Export: | Wrap

PlayerName	StadiumName	Year	Runs	Country	rnk
P1	Eden Gardens	2018	421	India	1
P2	Eden Gardens	2018	360	India	2
P1	Eden Gardens	2019	469	India	1
P2	Eden Gardens	2019	89	India	2
P2	Eden Gardens	2021	463	India	1
P7	Eden Gardens	2021	356	India	2
P1	Wankhede	2018	450	India	1
P5	Wankhede	2018	311	India	2
P4	Wankhede	2019	412	India	1
P5	Wankhede	2019	234	India	2
P5	Wankhede	2021	292	India	1
P2	Wankhede	2021	88	India	2

Answer :-




MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
adv_sql
education
llb
mock
Tables
employee
department
library
partition_by_gr
Administration Schemas
Information
Schema: mock
Object Info Session
mock
SQL File 8*
Limit to 500 rows
1 /*7. Get the output using table partition by ground wise rank
2 Answer :-*/
3 SELECT
4 PlayerName, StadiumName, Year, Runs, Country,
5 RANK() OVER (PARTITION BY StadiumName, Year ORDER BY Runs DESC) AS rnk
6 FROM
7 partition_by_ground_yr_ind_orde where Country = "India";
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
PlayerName StadiumName Year Runs Country rnk
P1 Eden Gardens 2018 421 India 1
P2 Eden Gardens 2018 360 India 2
P1 Eden Gardens 2019 469 India 1
P2 Eden Gardens 2019 89 India 2
P2 Eden Gardens 2021 463 India 1
P7 Eden Gardens 2021 356 India 2
Result 2
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 20:18:49 SELECT PlayerName, StadiumName, Year, Runs, ... 12 row(s) returned 0.000 sec / 0.000 sec


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
adv_sql
education
llb
mock
Tables
employee
department
library
partition_by_gr
Administration Schemas
Information
Schema: mock
Object Info Session
mock
SQL File 8*
Limit to 500 rows
1 /*7. Get the output using table partition by ground wise rank
2 Answer :-*/
3 SELECT
4 PlayerName, StadiumName, Year, Runs, Country,
5 RANK() OVER (PARTITION BY StadiumName, Year ORDER BY Runs DESC) AS rnk
6 FROM
7 partition_by_ground_yr_ind_orde where Country = "India";
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
PlayerName StadiumName Year Runs Country rnk
P1 Wankhede 2018 450 India 1
P5 Wankhede 2018 311 India 2
P4 Wankhede 2019 412 India 1
P5 Wankhede 2019 234 India 2
P5 Wankhede 2021 292 India 1
P2 Wankhede 2021 88 India 2
Result 2
Read Only
Output
Action Output
Time Action Message Duration / Fetch
1 20:18:49 SELECT PlayerName, StadiumName, Year, Runs, ... 12 row(s) returned 0.000 sec / 0.000 sec

END..