UE18CS252 - DATABASE MANAGEMENT SYSTEMS - ASSIGNMENT 4

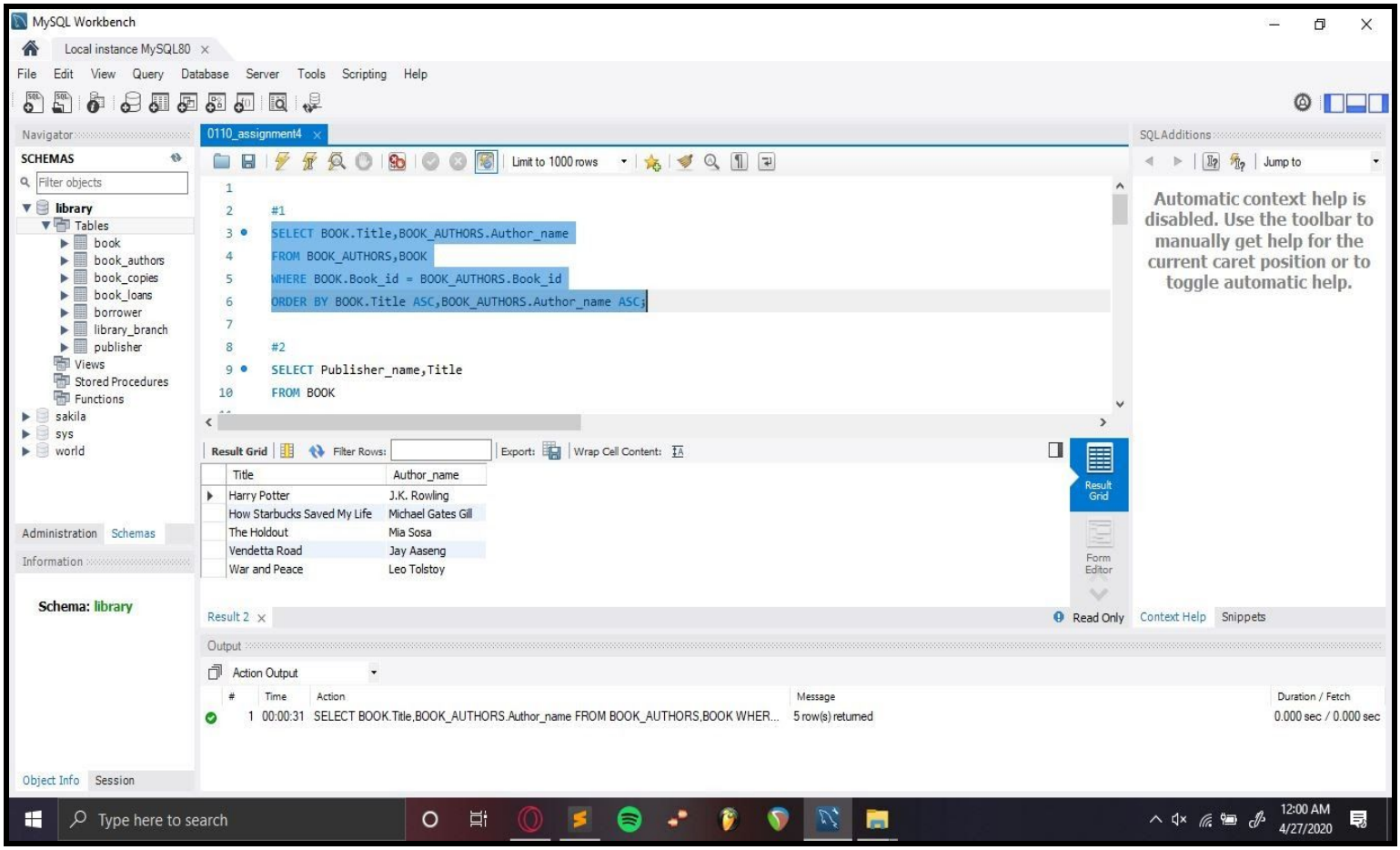
NAME - TEJAS SRINIVASAN
SRN - PES1201800110
SECTION - 4-'A'

Q.1 List all books sorting by authors and title

Query -

```
SELECT BOOK.Title,BOOK_AUTHORS.Author_name
FROM BOOK,BOOK_AUTHORS
WHERE BOOK.Book_id = BOOK_AUTHORS.Book_id
ORDER BY BOOK.Title ASC,BOOK_AUTHORS.Author_name ASC;
```

Output Screenshot -

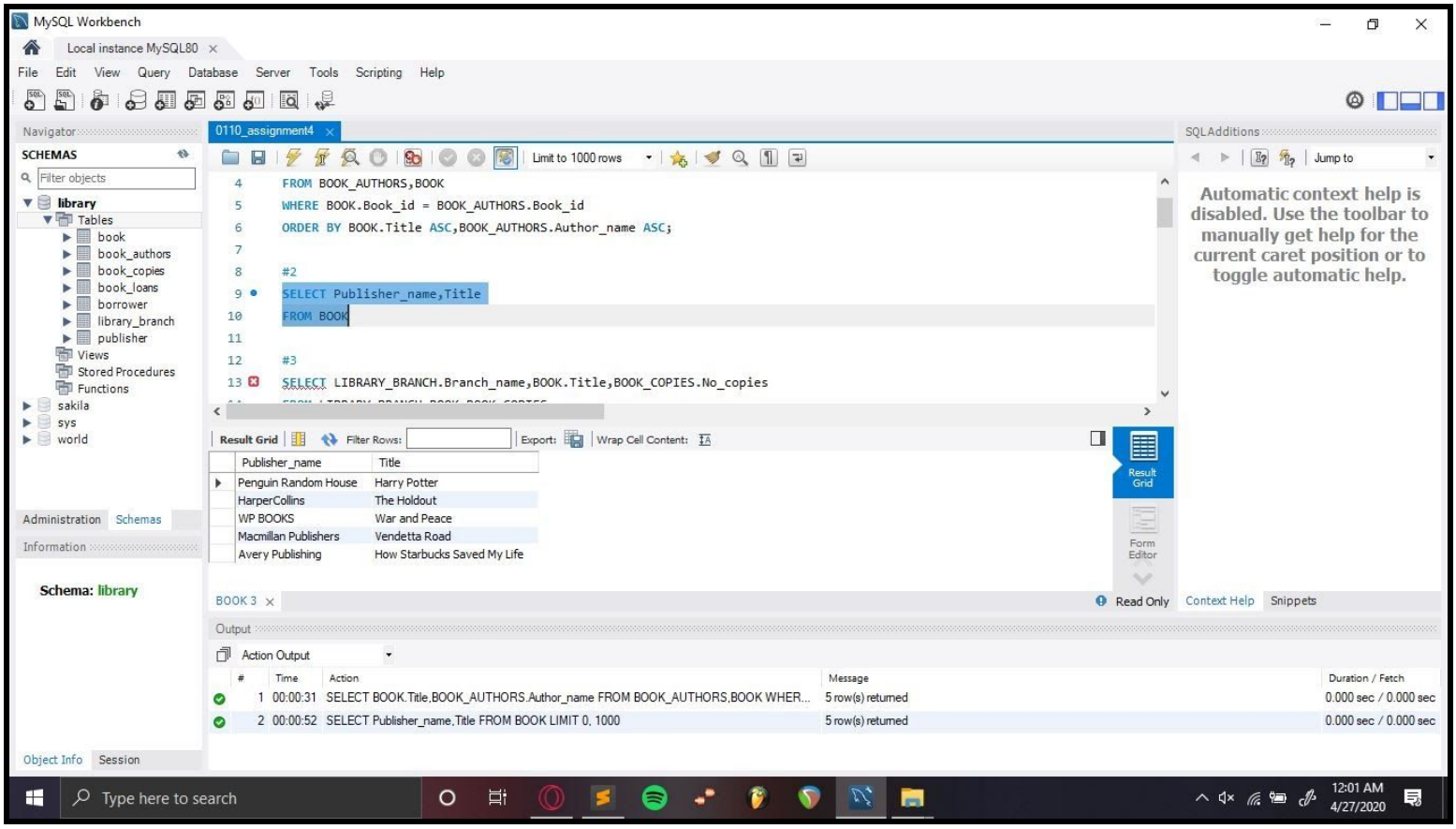


Q.2 List all the books in the library by publisher and title

Query -

```
SELECT BOOK.Publisher_name,BOOK.Title
FROM BOOK
```

Output Screenshot -



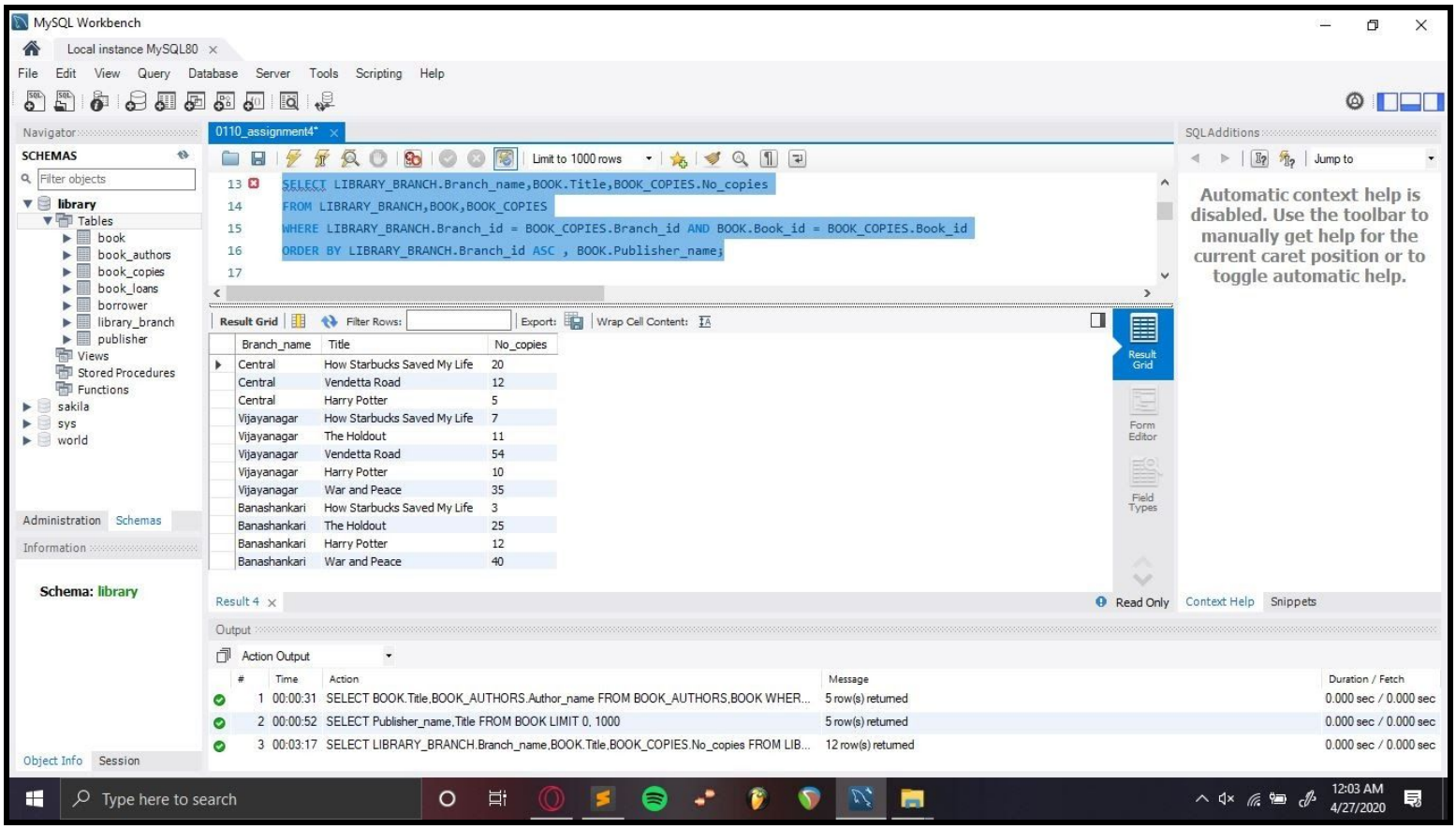
Q.3 For each branch print the number of copies of each book. Sort by branch id, publisher then book title

Query -

```
SELECT LIBRARY_BRANCH.Branch_name,BOOK.Title,BOOK_COPIES.No_copies
FROM LIBRARY_BRANCH,BOOK,BOOK_COPIES
WHERE LIBRARY_BRANCH.Branch_id = BOOK_COPIES.Branch_id AND BOOK.Book_id =
BOOK_COPIES.Book_id
ORDER BY LIBRARY_BRANCH.Branch_id ASC , BOOK.Publisher_name;
```

Output Screenshot -

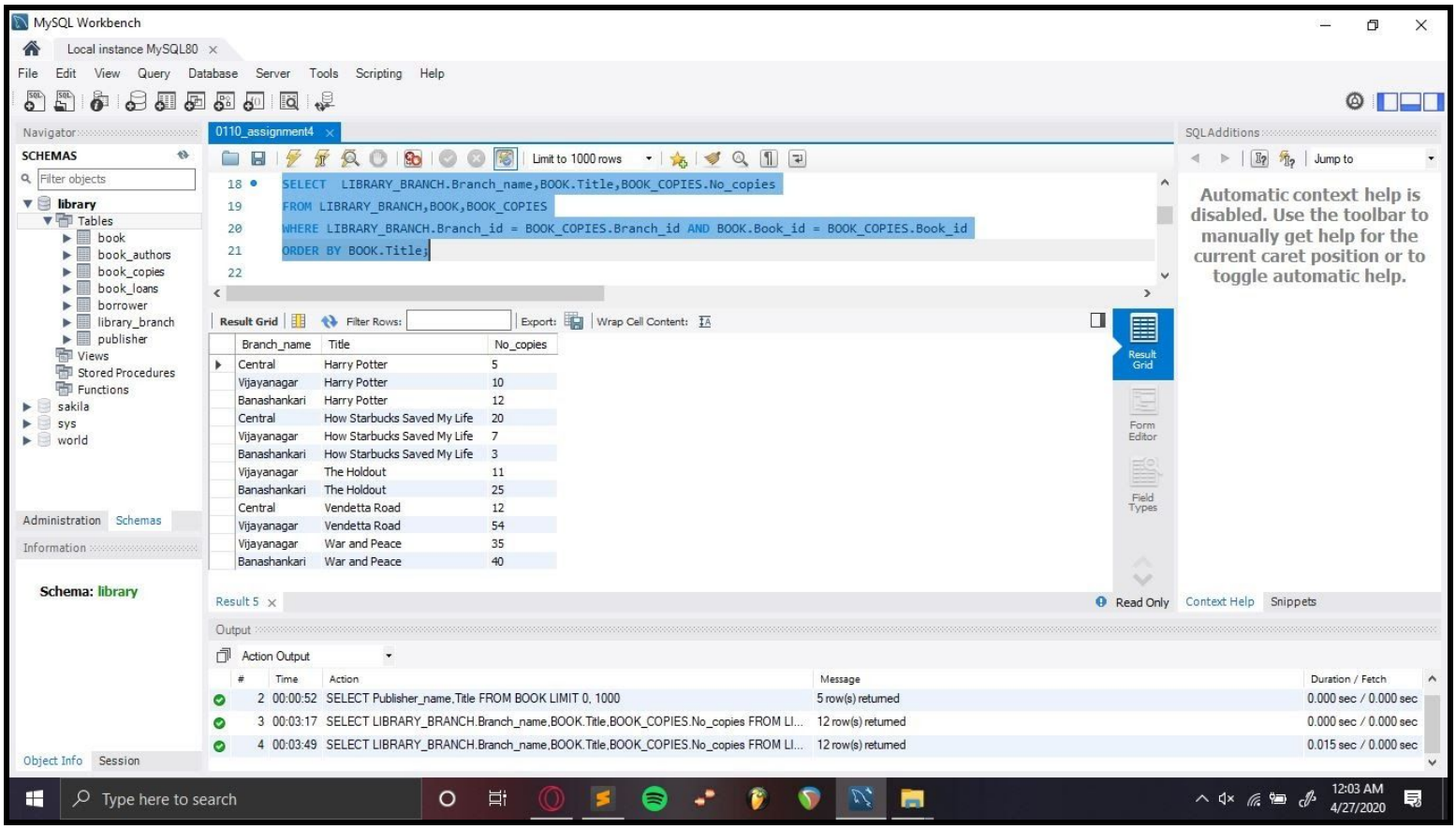
2



Query-

```
SELECT LIBRARY_BRANCH.Branch_name,BOOK.Title,BOOK_COPIES.No_copies
FROM LIBRARY_BRANCH,BOOK,BOOK_COPIES
WHERE LIBRARY_BRANCH.Branch_id = BOOK_COPIES.Branch_id AND BOOK.Book_id =
BOOK_COPIES.Book_id
ORDER BY BOOK.Title;
```

Output Screenshot -

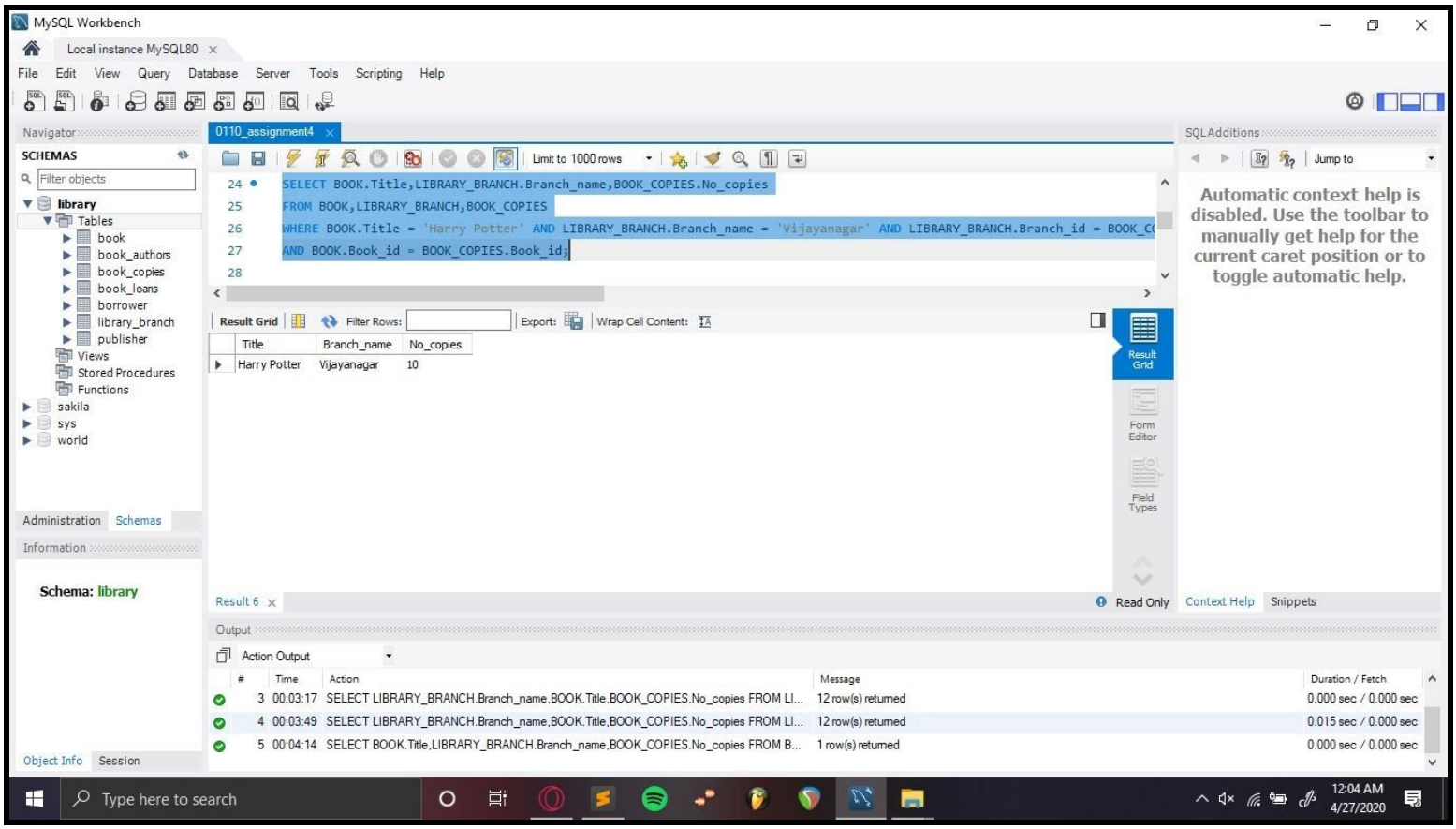


Q.4 How many copies of the book titled Harry Potter are owned by the library branch whose name is ‘Vijayanagar’?

Query -

```
SELECT BOOK_COPIES.No_copies,BOOK.Title,LIBRARY_BRANCH.Branch_name
FROM BOOK_COPIES,BOOK,LIBRARY_BRANCH
WHERE BOOK.Title = 'Harry Potter' AND LIBRARY_BRANCH.Branch_name = 'Vijayanagar' AND
LIBRARY_BRANCH.Branch_id = BOOK_COPIES.Branch_id
AND BOOK.Book_id = BOOK_COPIES.Book_id;
```

Output Screenshot -



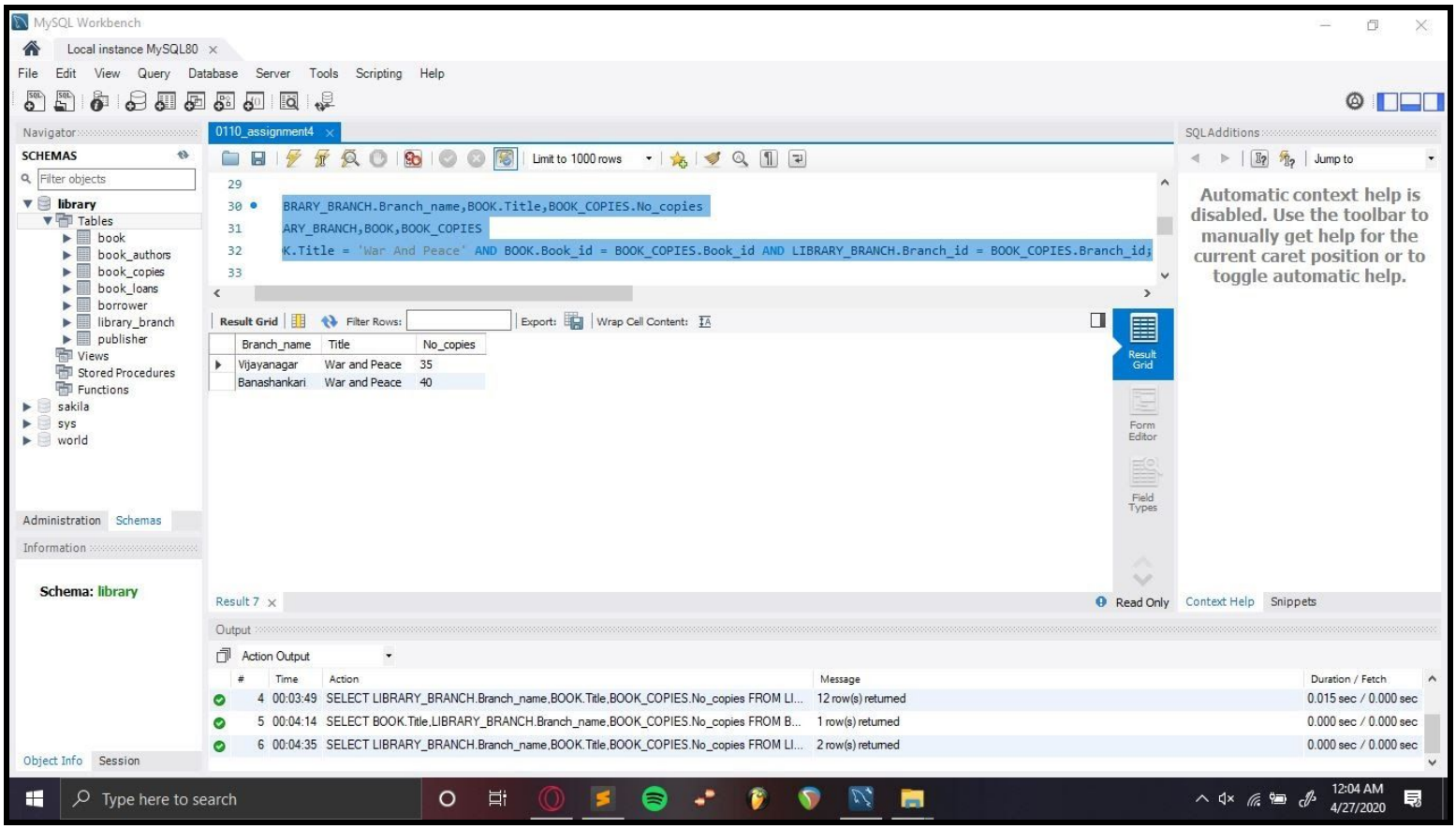
Q.5 How many copies of the book titled War and Peace are owned by each library branch?

Query -

```
/* UPDATING and setting is necessary here ? */

SELECT LIBRARY_BRANCH.Branch_name,BOOK.Title,BOOK_COPIES.No_copies
FROM LIBRARY_BRANCH,BOOK,BOOK_COPIES
WHERE BOOK.Title = 'War And Peace' AND BOOK.Book_id = BOOK_COPIES.Book_id AND
LIBRARY_BRANCH.Branch_id = BOOK_COPIES.Branch_id;
```

Output Screenshot -



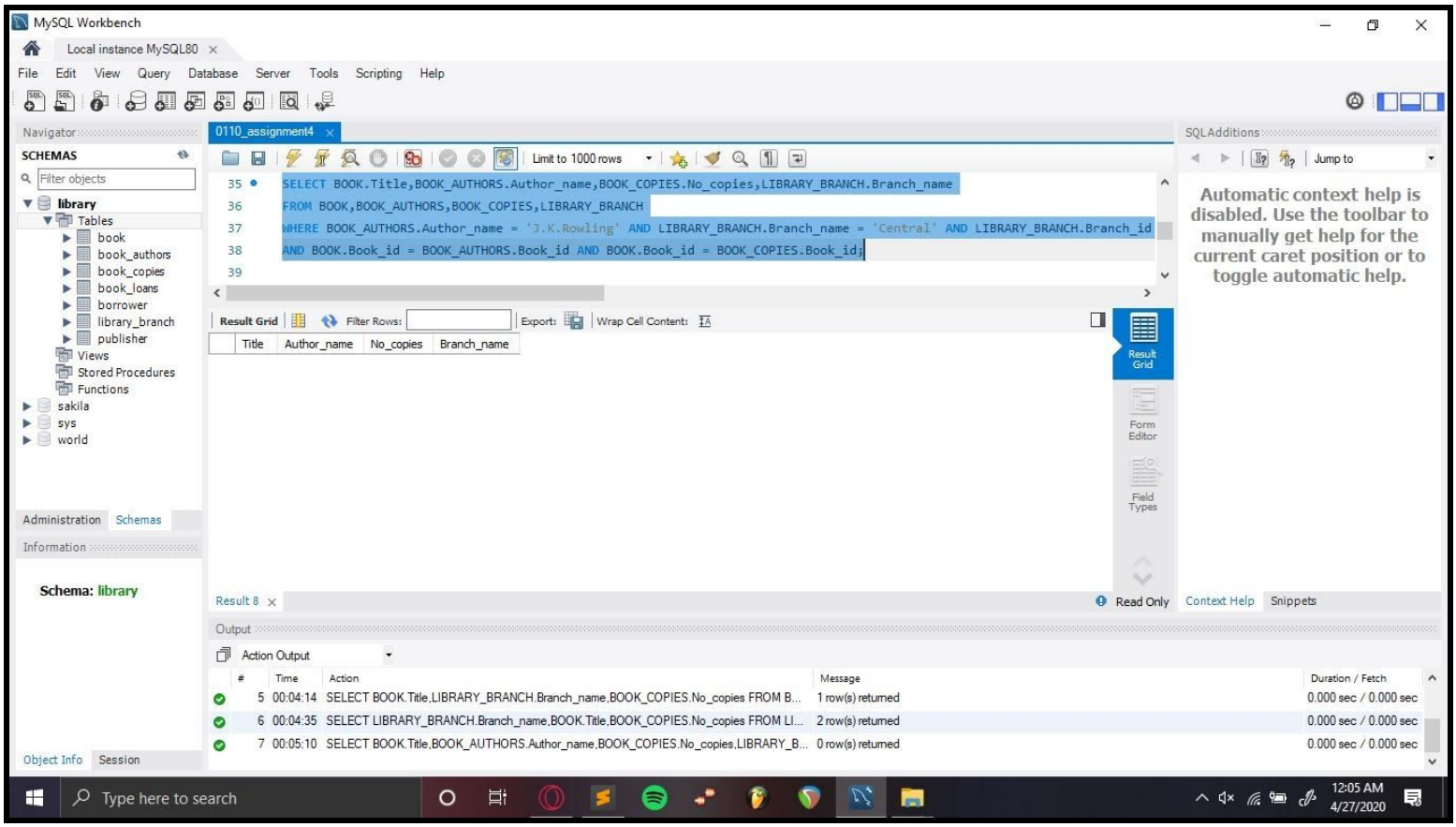
Q.6 For each book authored (or co-authored) by J. K. Rowling, retrieve the title and the number of copies owned by the library branch whose name is Central

Query -

/* UPDATING and setting is necessary here ? */

SELECT
BOOK.Title,BOOK_AUTHORS.Author_name,BOOK_COPIES.No_copies,LIBRARY_BRANCH.Branch_name
FROM BOOK,BOOK_AUTHORS,BOOK_COPIES,LIBRARY_BRANCH
WHERE BOOK_AUTHORS.Author_name = 'J.K.Rowling' AND LIBRARY_BRANCH.Branch_name = 'Central' AND
LIBRARY_BRANCH.Branch_id = BOOK_COPIES.Branch_id
AND BOOK.Book_id = BOOK_AUTHORS.Book_id AND BOOK.Book_id = BOOK_COPIES.Book_id;

Output Screenshot -

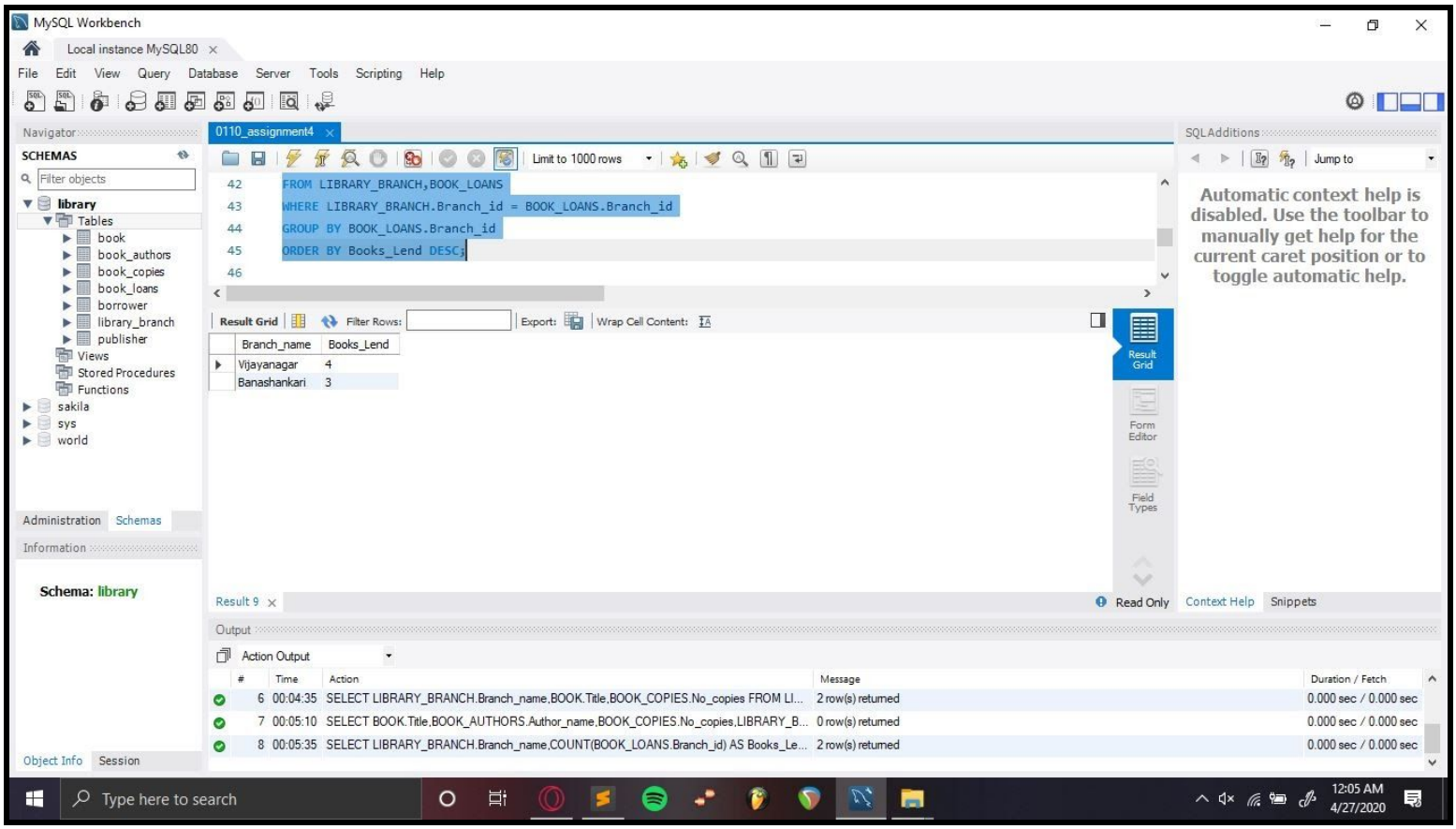


Q.7 For each library branch, retrieve the branch name and the total number of books loaned out from that branch. Sort it in descending order of total number of books and branch name

Query -

```
SELECT LIBRARY_BRANCH.Branch_name,COUNT(BOOK_LOANS.Branch_id) AS Books_Lend
FROM LIBRARY_BRANCH,BOOK_LOANS
WHERE LIBRARY_BRANCH.Branch_id = BOOK_LOANS.Branch_id
GROUP BY BOOK_LOANS.Branch_id
ORDER BY Books_Lend DESC;
```

Output Screenshot -

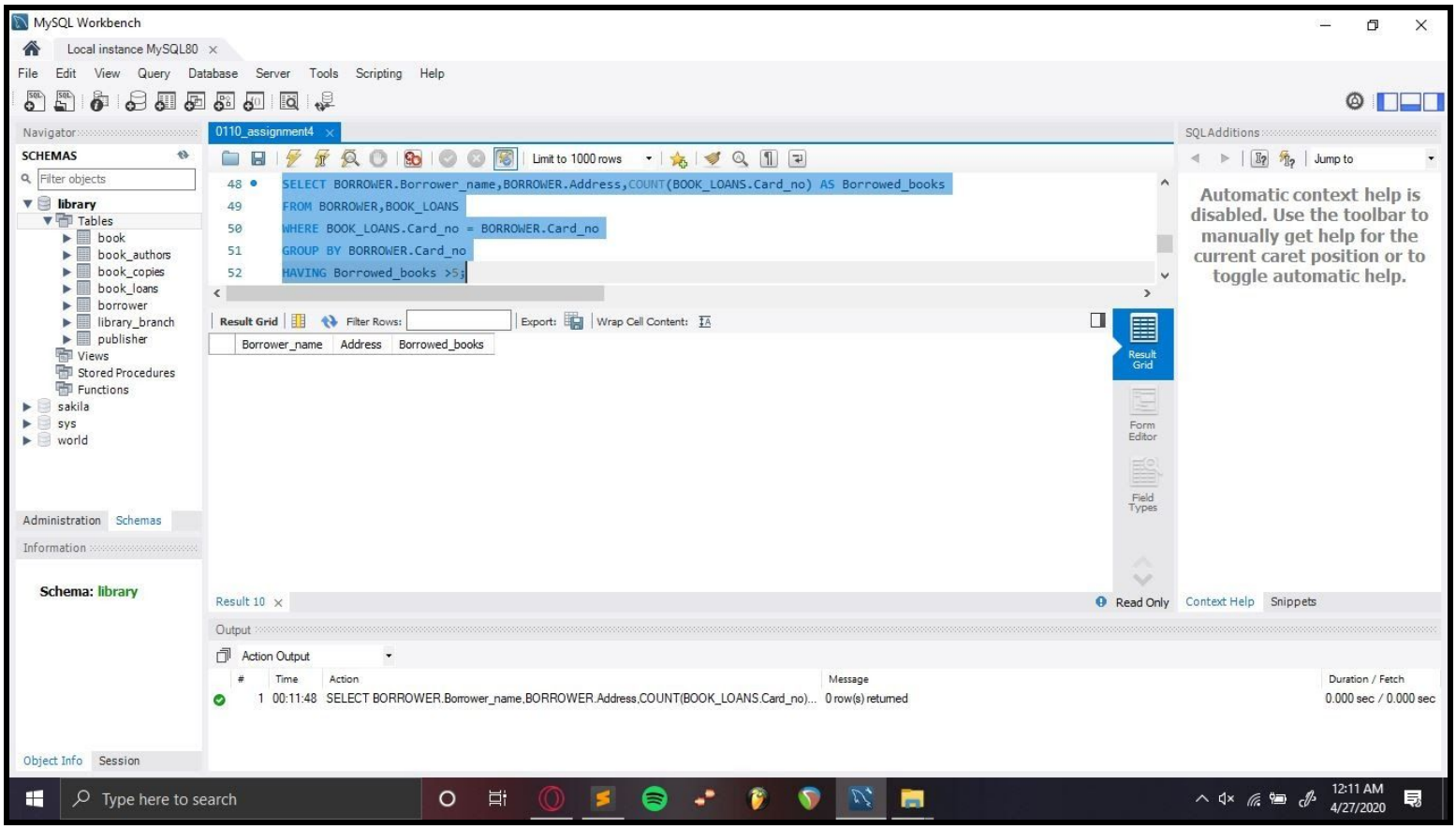


Q.8 For each book that is loaned out from the Vijayanagar branch and whose Due_date is today, retrieve the book title, the borrower's name, and the borrower's address

Query -

```
SELECT BORROWER.Borrower_name,BORROWER.Address,COUNT(BOOK_LOANS.Card_no) AS
Borrowed_books
FROM BORROWER,BOOK_LOANS
WHERE BOOK_LOANS.Card_no = BORROWER.Card_no
GROUP BY BORROWER.Card_no
HAVING Borrowed_books >5;
```

Output Screenshot -

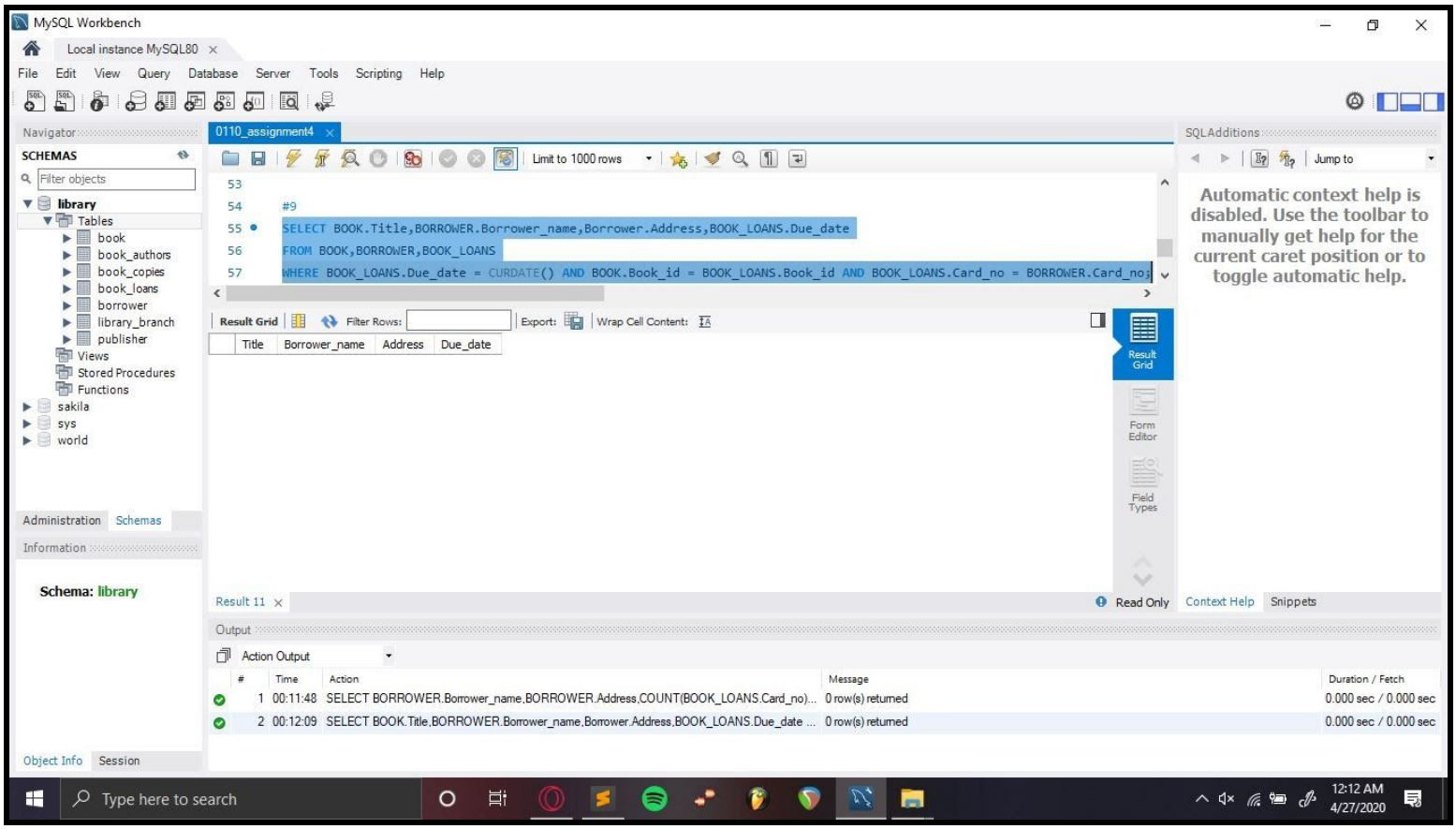


Q.9 For each book that is loaned out from the Vijayanagar branch and whose Due_date is today, retrieve the book title, the borrower's name, and the borrower's address

Query -

```
SELECT BOOK.Title,BORROWER.Borrower_name,Borrower.Address,BOOK_LOANS.Due_date
FROM BOOK,BORROWER,BOOK_LOANS
WHERE LIBRARY_BRANCH.Branch_name = 'Vijayanagar' AND BOOK_LOANS.Due_date = CURDATE() AND
BOOK.Book_id = BOOK_LOANS.Book_id AND BOOK_LOANS.Card_no = BORROWER.Card_no;
```

Output Screenshot -

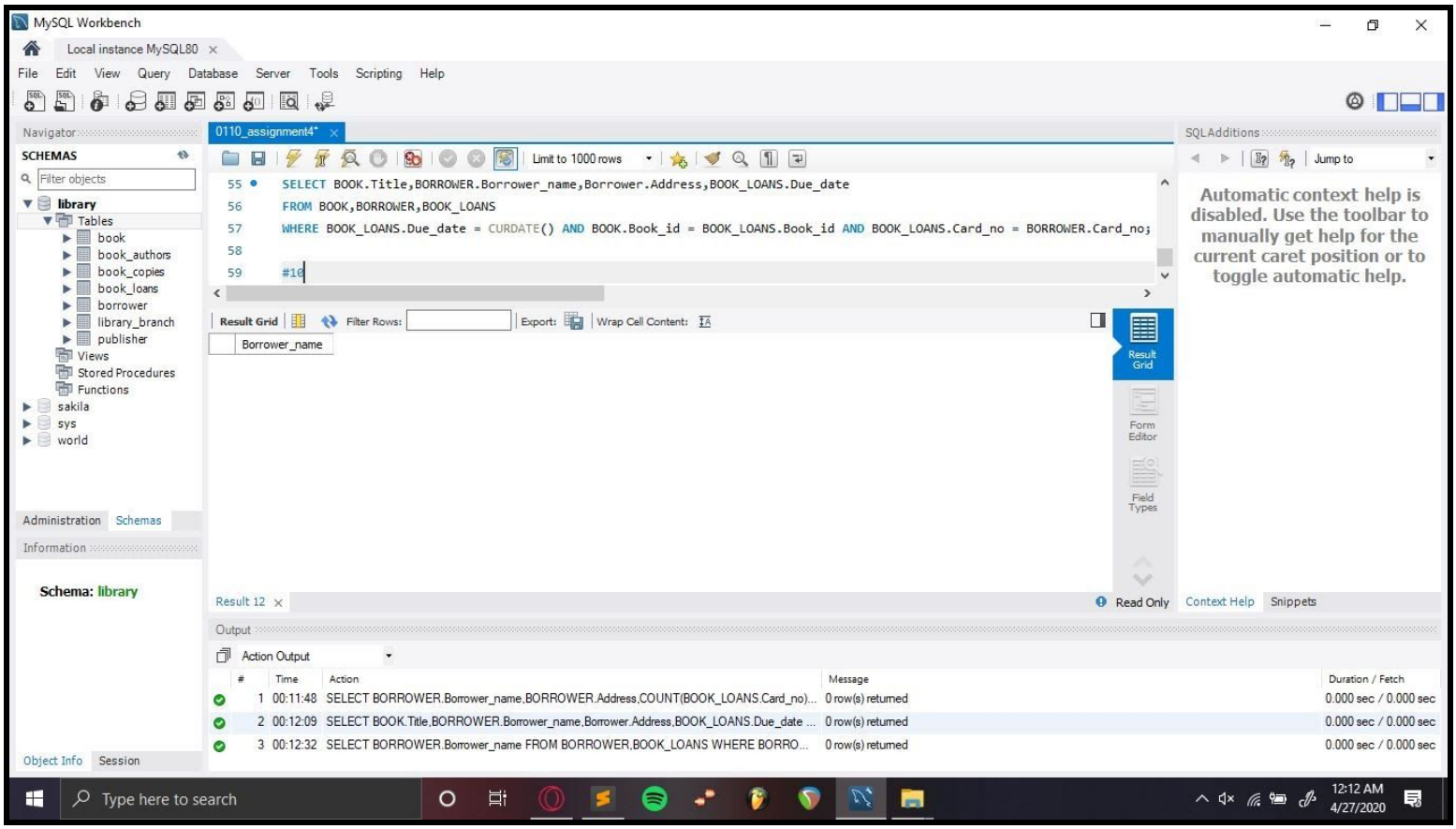


Q.10 Retrieve the names of all borrowers who do not have any books checked out

Query -

```
SELECT BORROWER.Borrower_name
FROM BORROWER,BOOK_LOANS
WHERE BORROWER.Card_no NOT IN
   (SELECT BOOK_LOANS.Card_no
    FROM BOOK_LOANS
    GROUP BY BORROWER.Card_no)
GROUP BY BORROWER.Borrower_name;
```

Output Screenshot -


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
library
Tables
book
book_authors
book_copies
book_loans
borrower
library_branch
publisher
Views
Stored Procedures
Functions
sakila
sys
world
Administration Schemas
Information
Schema: library
Object Info Session
0110_assignment4*
Limit to 1000 rows
55 SELECT BOOK.Title,BORROWER.Borrower_name,Borrower.Address,BOOK_LOANS.Due_date
56 FROM BOOK,BORROWER,BOOK_LOANS
57 WHERE BOOK_LOANS.Due_date = CURDATE() AND BOOK.Book_id = BOOK_LOANS.Book_id AND BOOK_LOANS.Card_no = BORROWER.Card_no;
58
59 #10
Result Grid Filter Rows: Export: Wrap Cell Content:
Borrower_name
Result Grid
Form Editor
Field Types
Result 12
Read Only
SQL Additions
Jump to
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
Context Help Snippets
Output
Action Output
Time Action Message Duration / Fetch
1 00:11:48 SELECT BORROWER.Borrower_name,BORROWER.Address,COUNT(BOOK_LOANS.Card_no)... 0 row(s) returned 0.000 sec / 0.000 sec
2 00:12:09 SELECT BOOK.Title,BORROWER.Borrower_name,Borrower.Address,BOOK_LOANS.Due_date ... 0 row(s) returned 0.000 sec / 0.000 sec
3 00:12:32 SELECT BORROWER.Borrower_name FROM BORROWER,BOOK_LOANS WHERE BORRO... 0 row(s) returned 0.000 sec / 0.000 sec
Type here to search
12:12 AM
4/27/2020