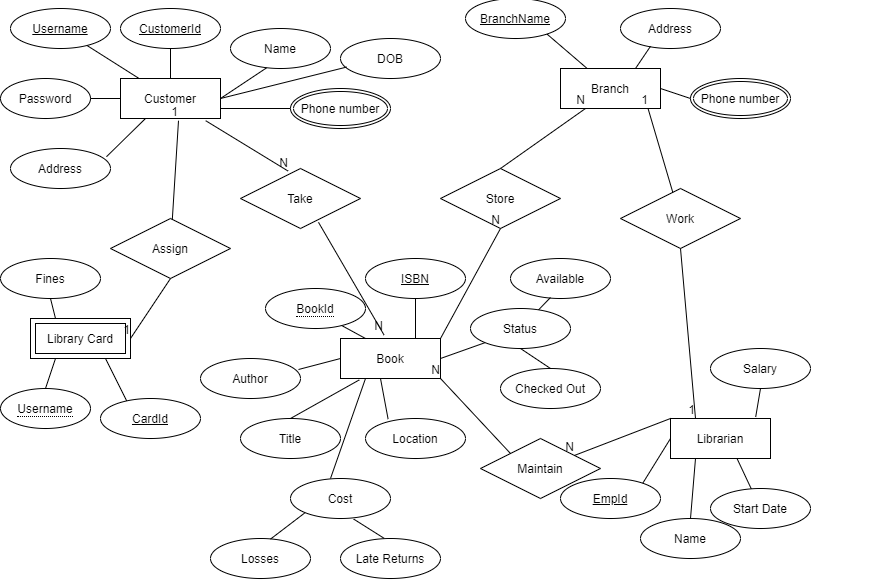
Case Study

Q1.



ER Diagram

Q2.

Books – Books are taken by customers. Books are maintained by librarians. Books are stored in branches.

Customer – Customers take books to read. Each customer has a library card.

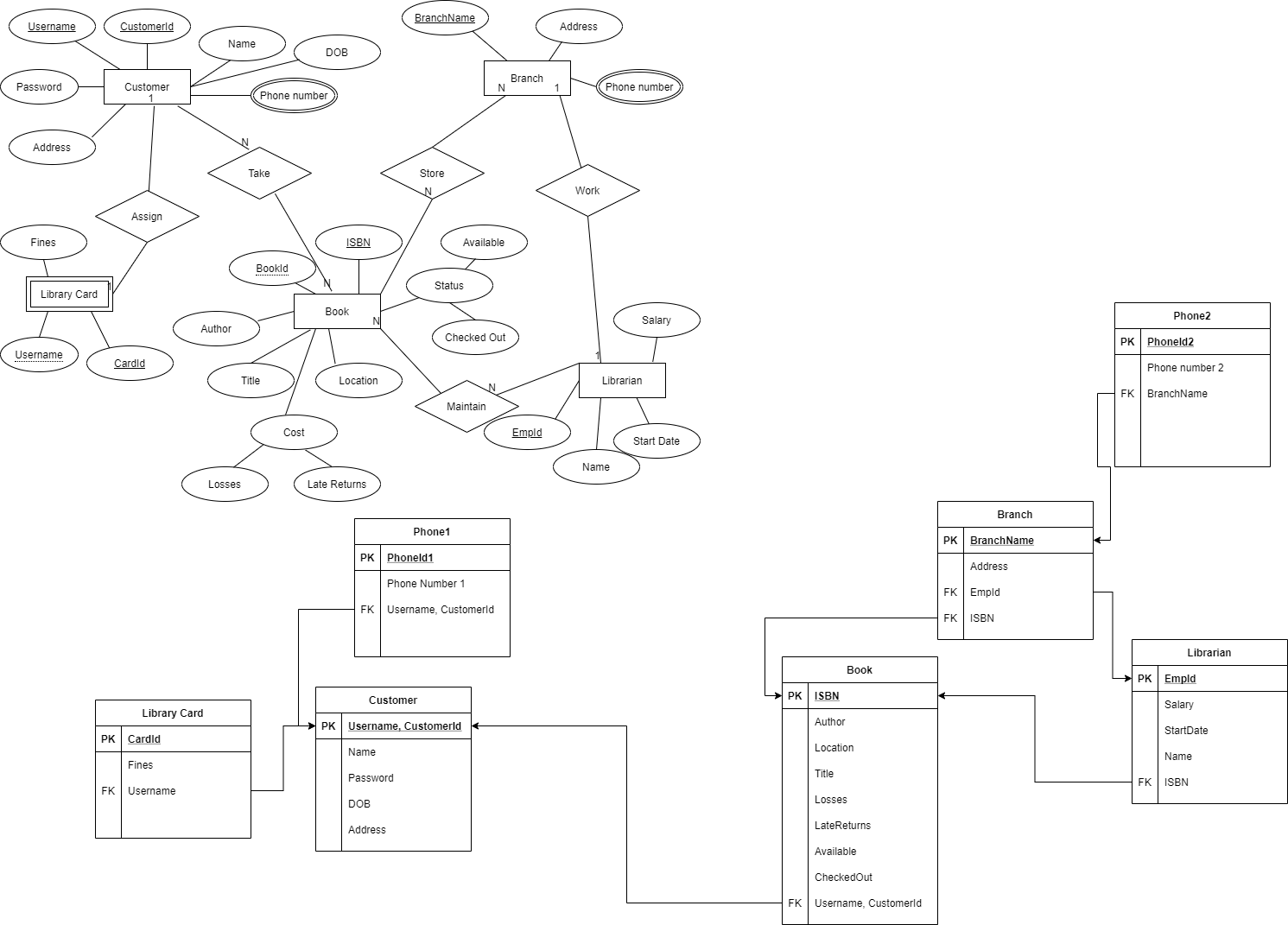
Branch - Branches store books. Each branch has one librarian.

Librarian – librarian maintains books. Each librarian works at one branch.

Library cards – library cards are issued to customers.

1

Q3.



Relational model

Book – **ISBN,** author, location, title, losses, late returns, available, checked out, Username, CustomerId

Customer – **Username, CustomerId,** name, password, dob, address

Librarian – **EmpId,** name, salary, start date, ISBN

Branch – **BranchName,** address, EmpId

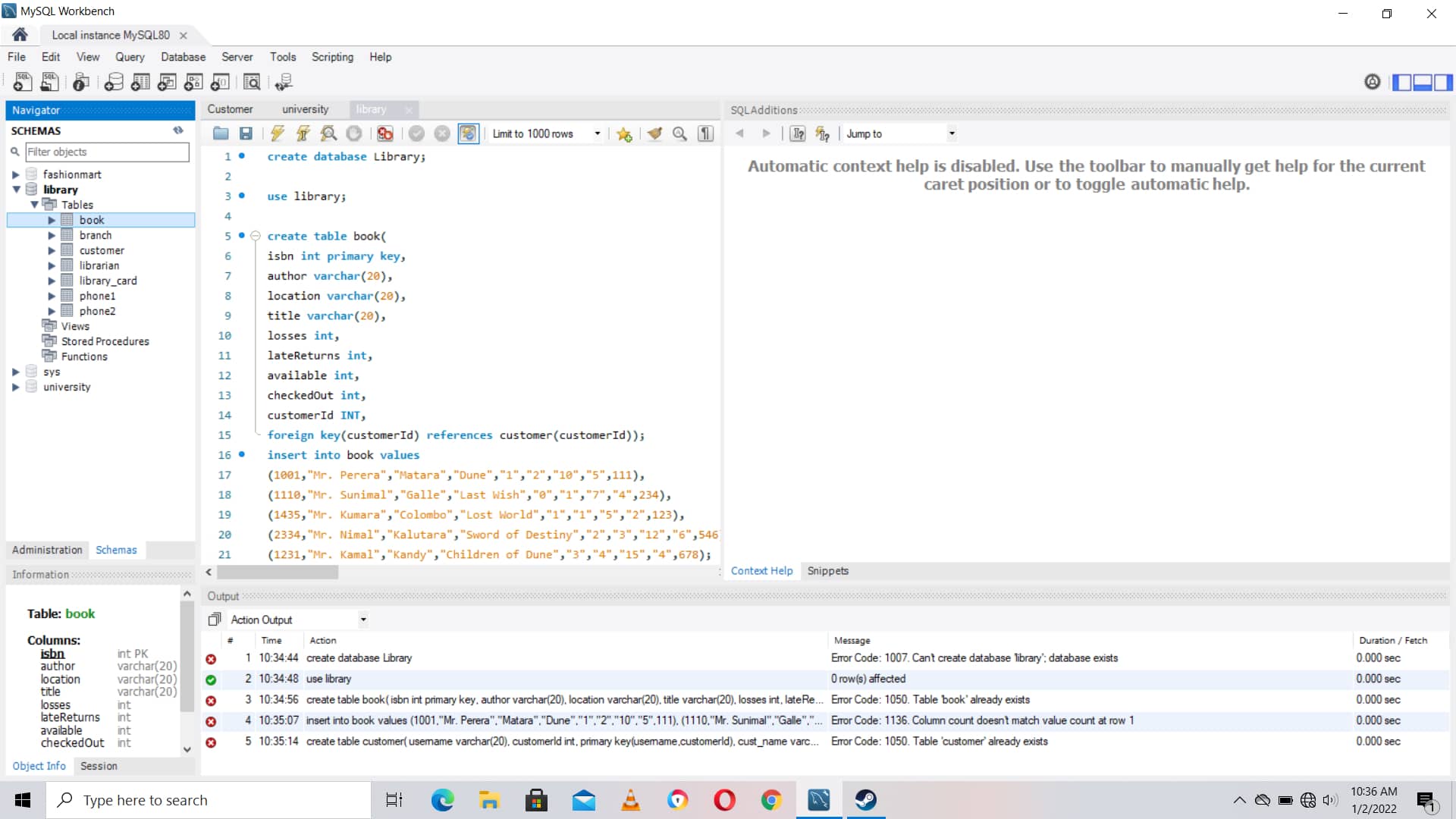
Phone1 – **PhoneId1,** phone number1, Username, CustomerId

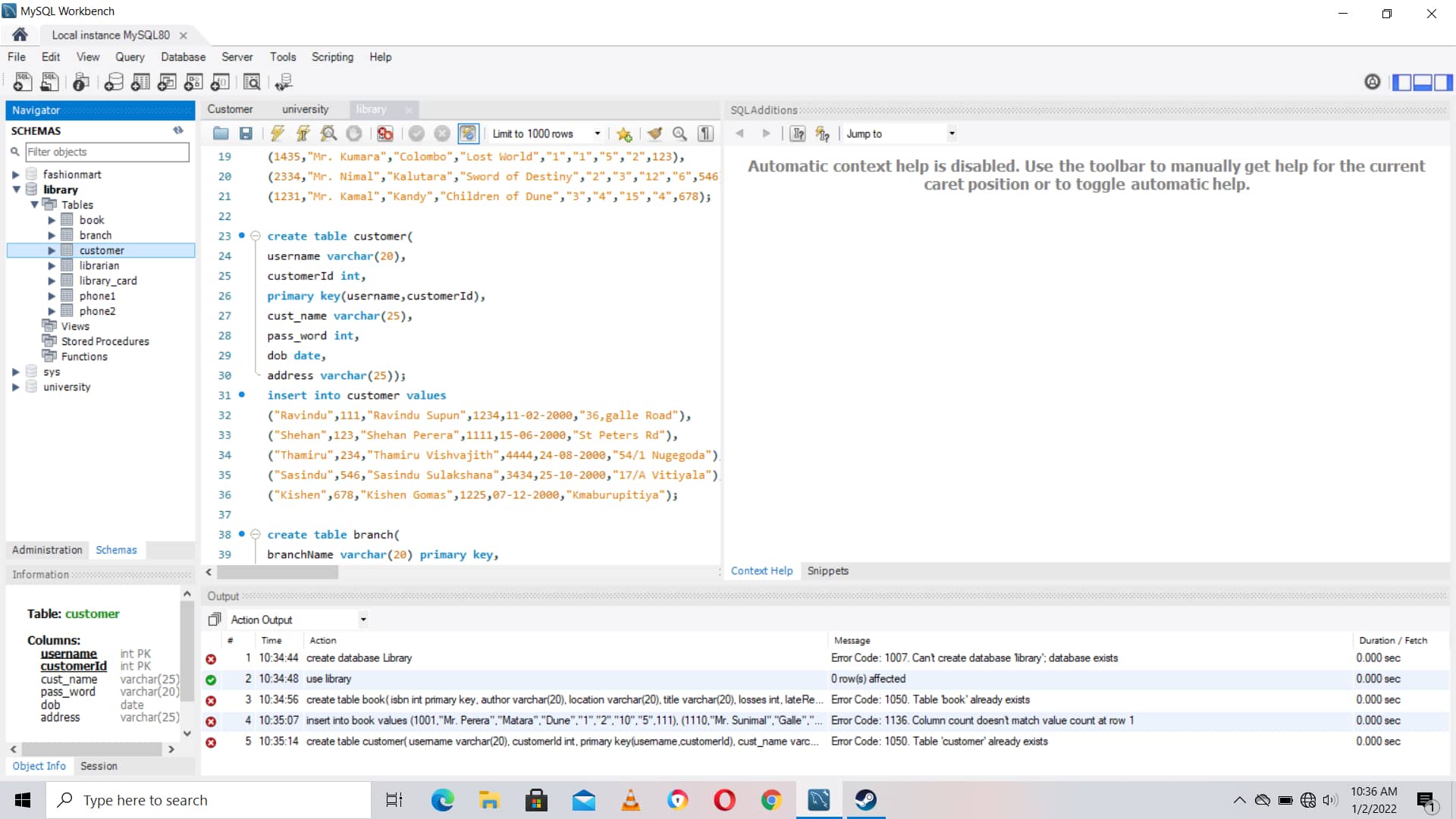
Phone2 – **PhoneId2,** phone number2, BranchName

Library card – **CardId,** Username, fines

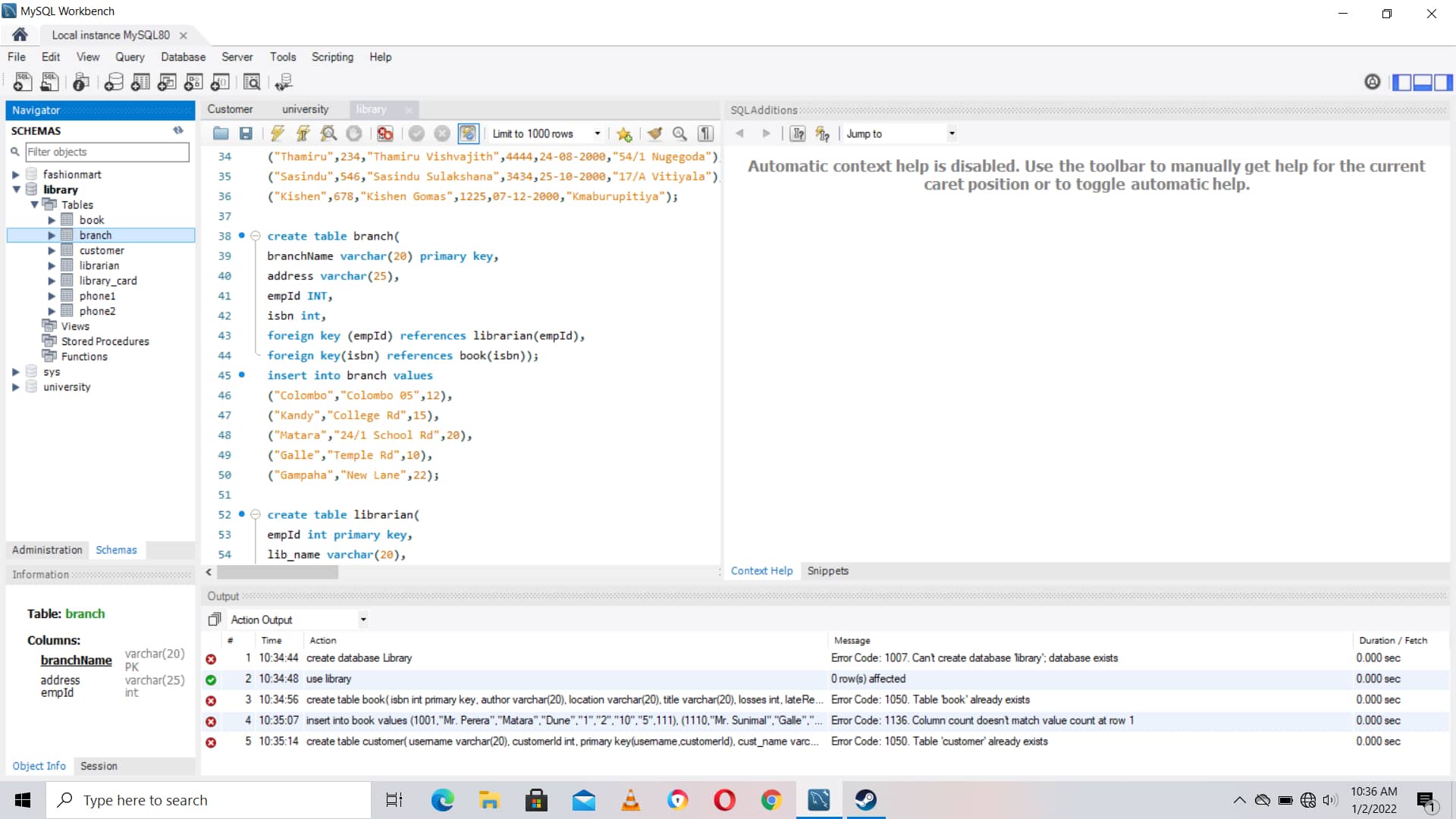
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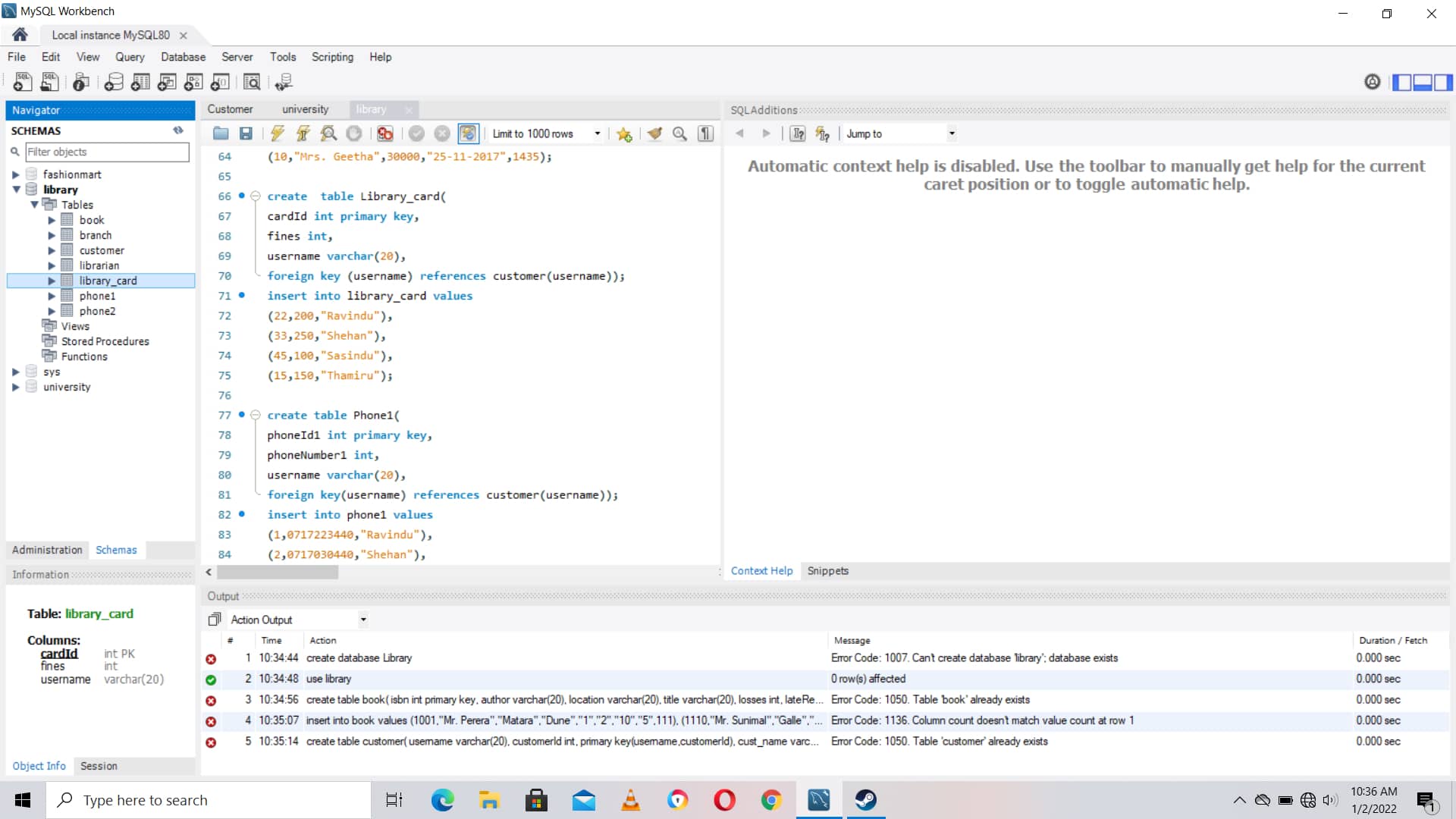
Q4.

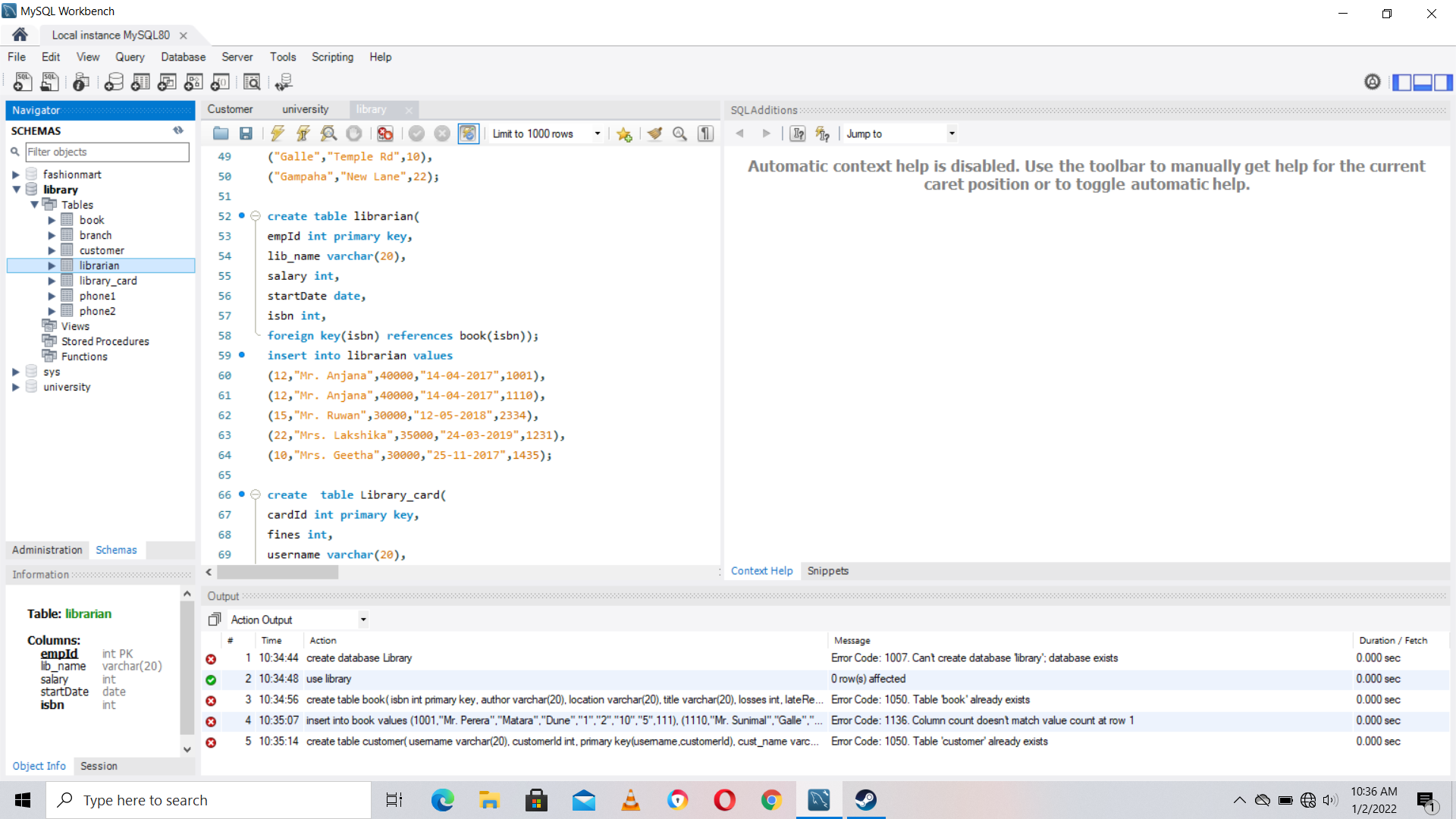




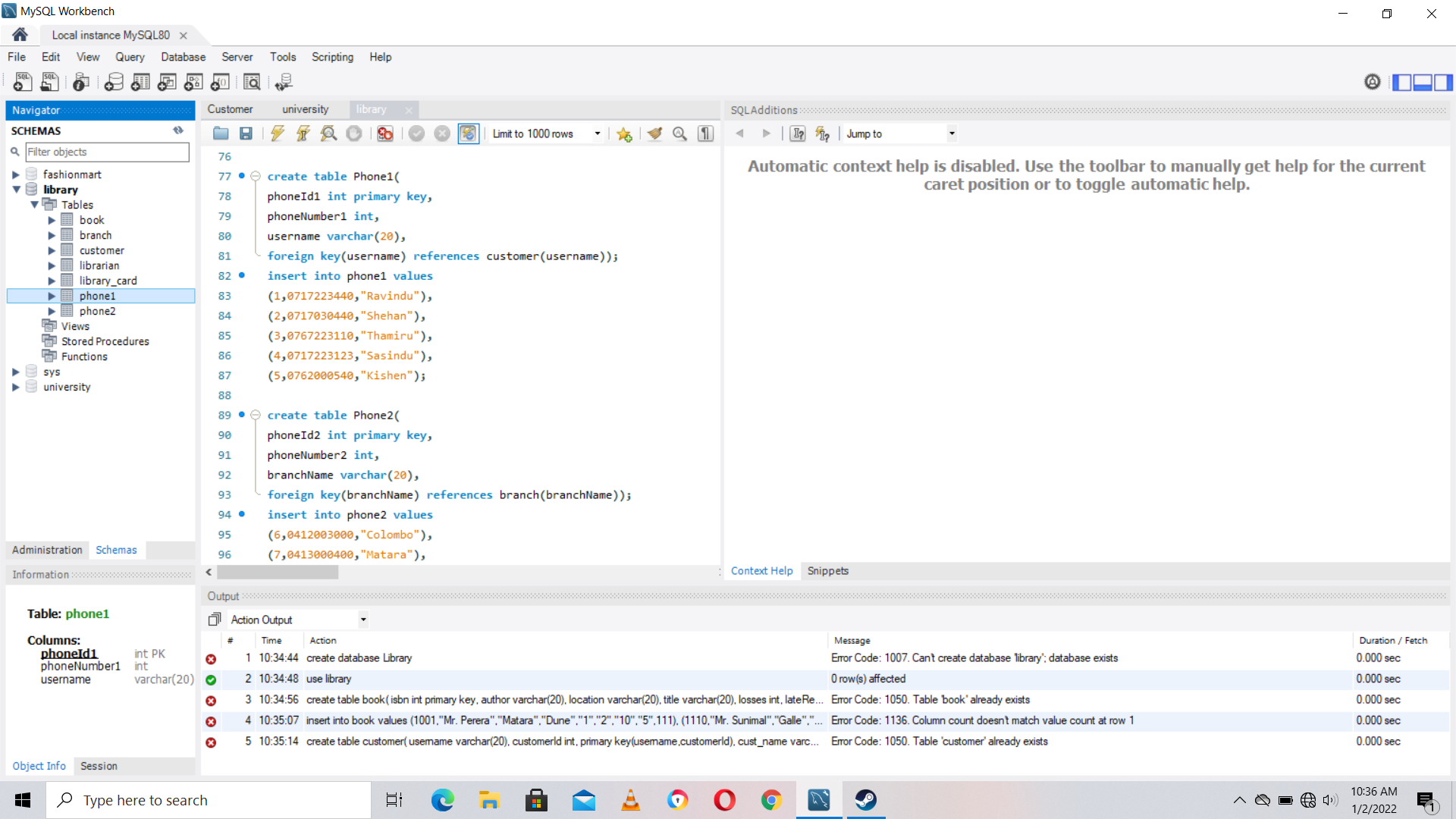
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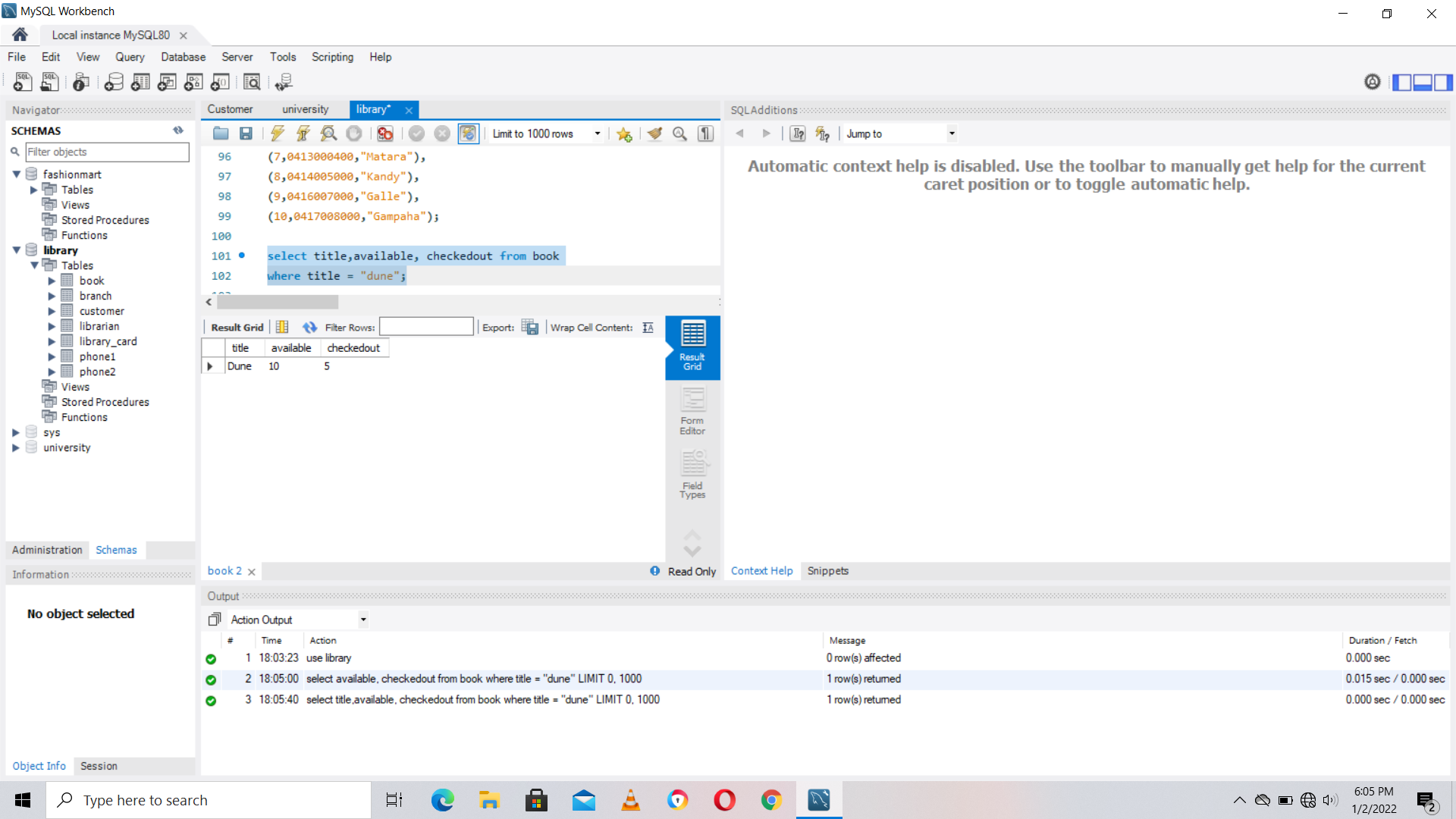


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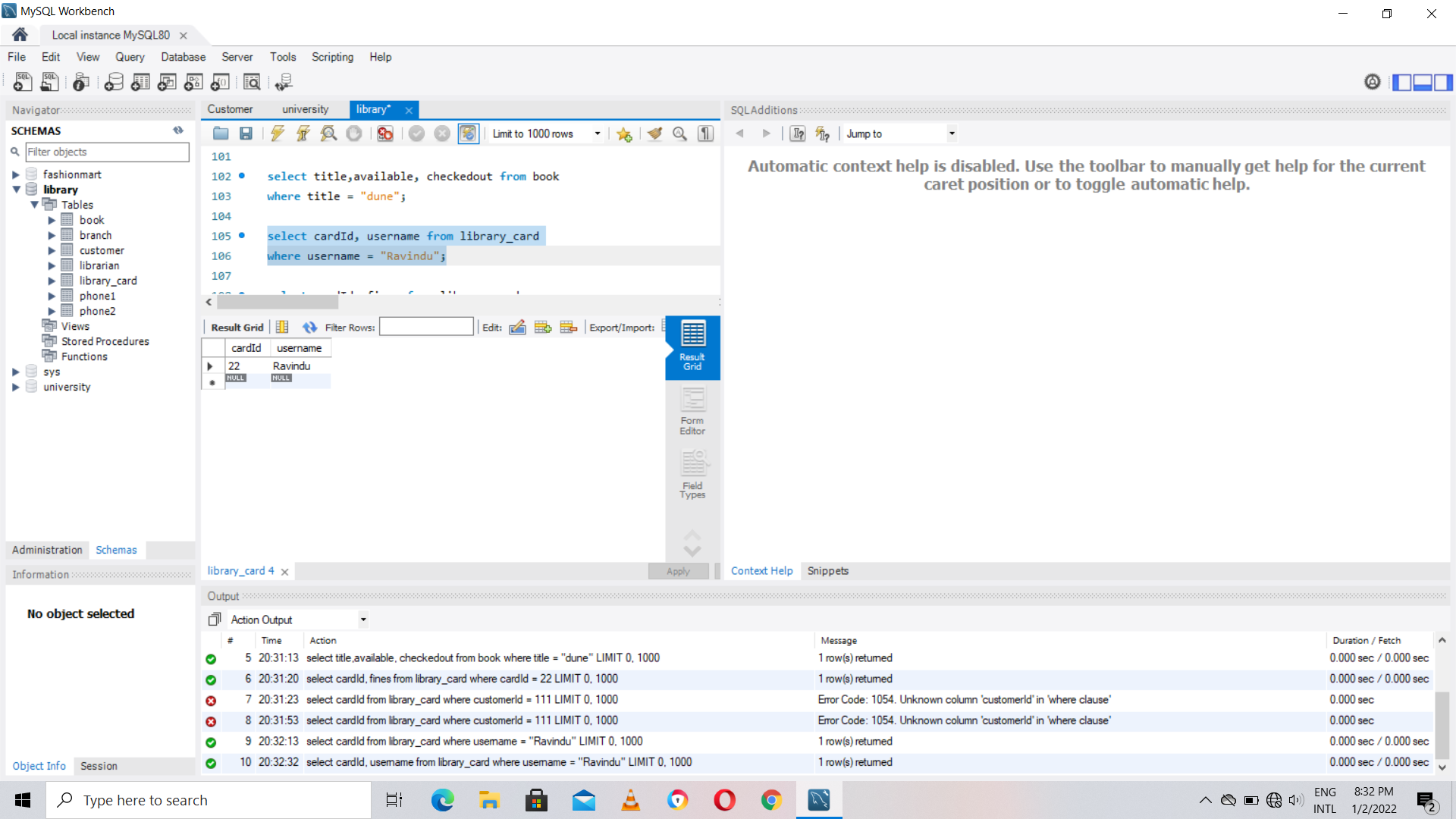
Q5.

1.

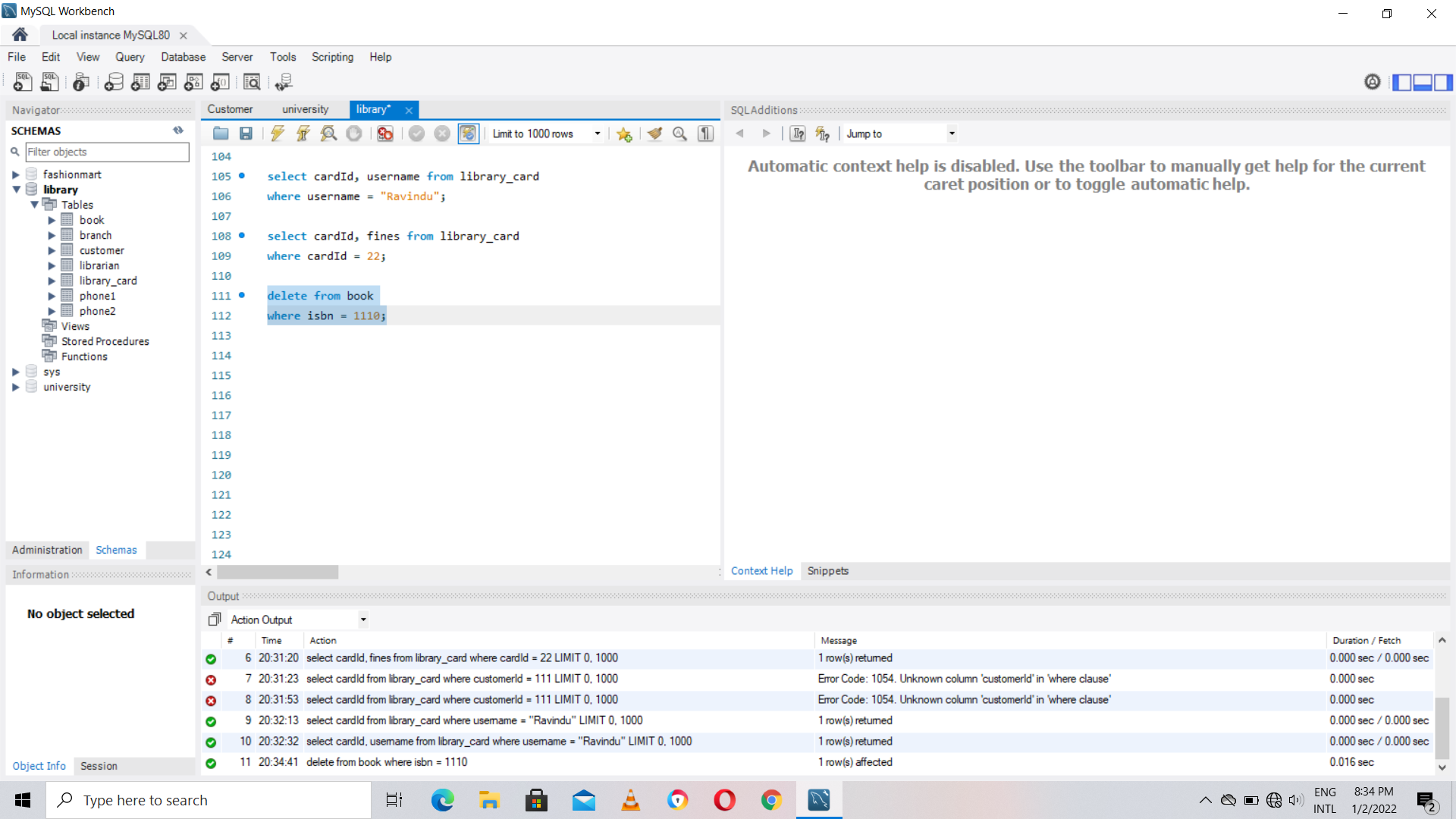


5

2.

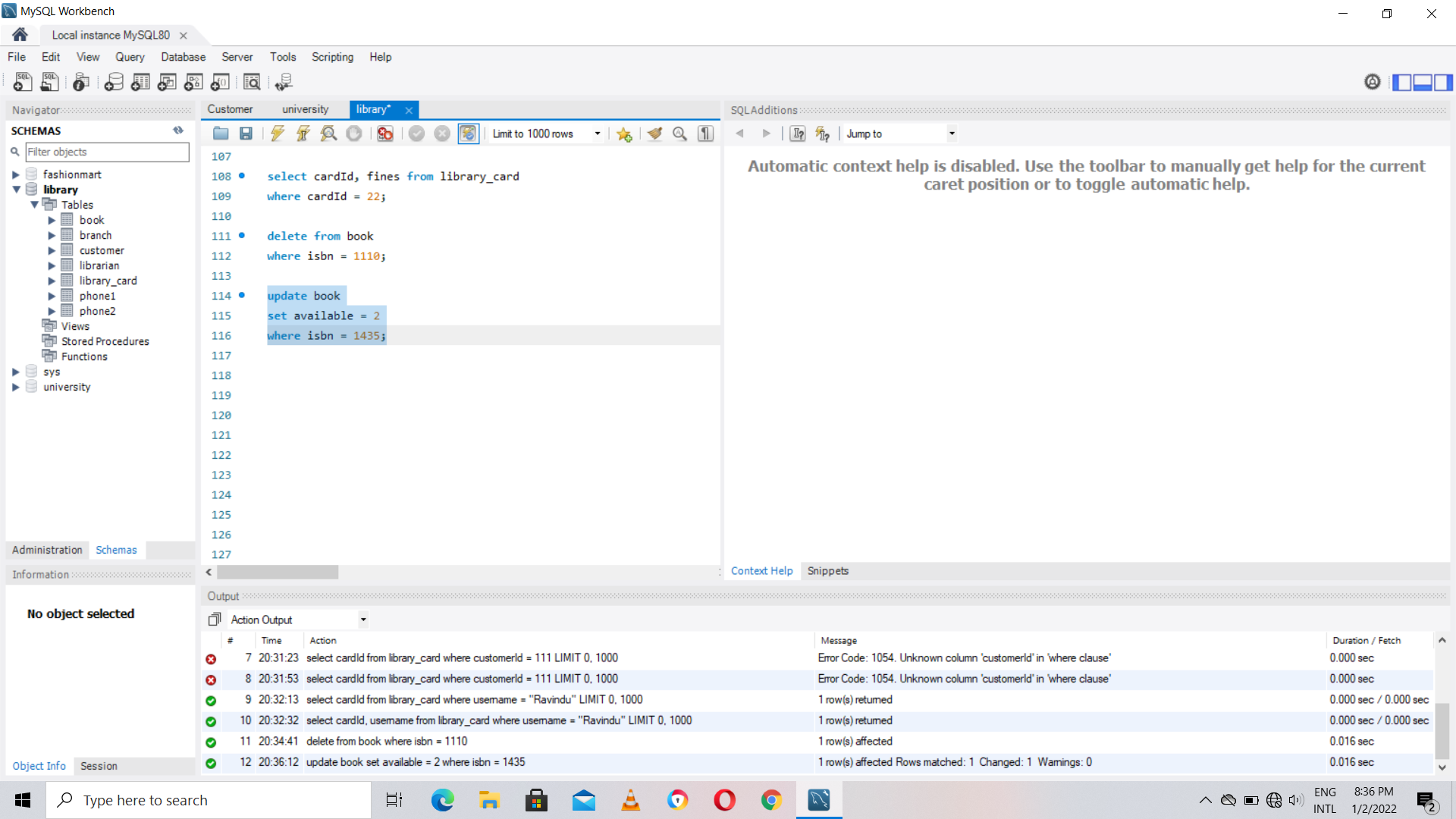


3.



6

4.



5.

