***Assignment 2 – Instructions:***

This assignment tests your skills in designing and interacting with databases, specifically focusing on schema creation, database connectivity, CRUD operations, transaction handling, and metadata access using a Java application.

Here are the steps to complete the assignment:

1. Create schemas.
2. Design a schema for a bookstore that includes tables for Books (general book information including the number of books left in the stock, is stored here), Authors, Orders (all the information about orders placed by customers, including one or more books), and Customers.
3. Define appropriate primary keys for each table.
4. Set up foreign key relationships to represent the relational data model.
5. Create an ER diagram to visually represent the schema.
6. Write SQL statements to create the tables according to your schema.
7. Connect to your database using a Java application.
8. Create a Java app and connect to the database.
9. Implement exception handling properly.
10. Implement CRUD operations.
11. Create, retrieve, update, and delete operations are simple operations to be performed on the database entities.
12. Inserting new records
13. Retrieving all book information, including authors and associated orders
14. Updating details of a book
15. Removing an existing book
16. Ensure that exceptions are handled properly.
17. Transaction management
18. If a Customer places an order, when inserting it into Orders, update the Books table as part of the same transactions. Also, note that orders cannot be inserted if not enough number of Books are available in the inventory.
19. Accessing metadata
20. Define methods to display info about
21. Names and structures of the tables in the DB
22. Details on columns of tables
23. Information on primary and foreign keys