The following are questions I asked ChatGPT for lab 1 and it's responses.

What is wrong here: import csv import os from sqlalchemy import create\_engine from sqlalchemy.orm import scoped\_session, sessionmaker # Check for environment variable if not os.getenv("DATABASE\_URL"): raise RuntimeError("DATABASE\_URL is not set") engine = create\_engine(os.getenv("DATABASE\_URL")) db = scoped\_session(sessionmaker(bind=engine)) def main(): books = open("books.csv") library = csv.reader(books) next(library, None) # Skips the header for col1, col2, col3, col4 in library: db.execute('INSERT INTO library (isbn, title, author, year) VALUES (:isbn, :title, :author, :year);', {"isbn": str(col1), "title": str(col2), "author": str(col3), "year": int(col4)}) db.commit() if \_\_name\_\_ == "\_\_main\_\_": main() ChatGPT

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Your code looks mostly correct, but there are a few things to consider:

- 1. File Closure: It's a good practice to close the file after you're done with it. You can use the with statement to ensure that the file is properly closed even if an exception occurs.
- 2. Error Handling: It's important to add proper error handling to catch and handle exceptions that might occur during database operations or data conversion.
- 3. Avoid SQL Injection: When using parameterized queries as you are with :isbn, :title, :author, and :year, it's a good practice, and more secure, to use parameter binding instead of manually converting values to strings.

Here's an updated version of your code with these improvements:

# pythonCopy code

importcsv importos fromsqlalchemy importcreate\_engine, text fromsqlalchemy.orm importscoped\_session, sessionmaker # Check for environment variableifnotos.getenv("DATABASE\_URL"): raiseRuntimeError("DATABASE\_URL is not set") engine = create\_engine(os.getenv("DATABASE\_URL")) db = scoped\_session(sessionmaker(bind=engine)) defmain(): try: withopen("books.csv") asbooks: library = csv.reader(books) next(library, None) # Skip the header rowforcol1, col2, col3, col4 inlibrary: stmt = text('INSERT INTO library (isbn, title, author, year) VALUES (:isbn, :title, :author, :year);') db.execute(stmt, {"isbn": col1, "title": col2, "author": col3, "year": int(col4)}) db.commit() print("Data imported successfully.") exceptException ase: db.rollback() print(f"Error: {e}") finally: db.close() if\_\_name\_\_ == " main ": main()

In this version, I've used a with statement to ensure the file is properly closed, switched to using text for the SQL statement, and handled exceptions more gracefully. Additionally, I removed the unnecessary str() conversion for col1, col2, and col3, assuming these are already strings in your CSV file.



You

postgresql how to have it search for something but not care about upper or lowercase ChatGPT

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In PostgreSQL, you can perform a case-insensitive search by using the ILIKE operator instead of LIKE. The ILIKE operator is similar to LIKE, but it performs a case-insensitive comparison.

Here's an example:

## sqlCopy code

SELECT\*FROMyour\_table WHEREcolumn\_name ILIKE 'search\_string%';

Replace your\_table with the actual name of your table and column\_name with the column you want to search. The ILIKE operator will match the specified pattern ('search string%') case-insensitively.

For example, if you want to find all rows where the column named name contains the substring 'john' regardless of case:

## sqlCopy code

SELECT\*FROMyour table WHEREname ILIKE '%john%';

This query will match rows where the name column contains 'john', 'John', 'JOHN', and so on.

Keep in mind that the performance of case-insensitive searches may vary depending on the size of your dataset, so always test and optimize based on your specific use case.



#### You

@app.route("/search", methods=["GET","POST"]) def search(): if request.method == "POST": username = request.form.get("username") password = request.form.get("password") if username and password: user = db.execute(text("SELECT EXISTS (SELECT 1 FROM users WHERE username = :username AND password = :password);"), {"username": str(username), "password": str(password)}) if user == True: return "Search library" else: return "Invalid User" else: return render\_template("index.html") else: return render\_template("index.html") Why is this wrong?

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The issue with your code is that the db.execute() method returns a ResultProxy object, not a boolean value. The ResultProxy object doesn't evaluate to True or False directly. To check the result of the EXISTS query, you can fetch a single value from the result using the fetchone() method and then access the value using indexing. Also, note that you should use the db.execute() method in conjunction with scalar() to fetch a single value. Here's the corrected code:

# pythonCopy code

fromsqlalchemy importtext @app.route("/search", methods=["GET", "POST"])defsearch(): ifrequest.method == "POST": username = request.form.get("username") password = request.form.get("password") ifusername andpassword: result = db.execute( text("SELECT EXISTS (SELECT 1 FROM users WHERE username = :username AND password = :password);"), {"username": str(username), "password": str(password)} ) user\_exists = result.scalar() ifuser\_exists: return"Search library"else: return"Invalid User"else: returnrender\_template("index.html")

In this corrected code:

- The result.scalar() method is used to fetch a single value from the result.
- The user\_exists variable is then used to check whether the user exists in the database. Now, the user\_exists variable will be a boolean value indicating whether the specified user with the given username and password exists in the database.

I have forms but I don't want them to drop down with recommendations with text is there a way to remove that?

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Yes, you can disable the autocomplete feature in HTML forms to prevent browsers from suggesting or autofilling input values. You can achieve this by adding the autocomplete="off" attribute to the <form> tag or individual input fields. Here's an example of how to disable autocomplete for a form:

## htmlCopy code

<formaction="/submit"method="post"autocomplete="off"><!-- Form fields here --></form>
And here's how to disable autocomplete for individual input fields:

# htmlCopy code

<inputtype="text"name="username"autocomplete="off"placeholder="Username"><inputtyp
e="password"name="password"autocomplete="off"placeholder="Password">

By setting autocomplete="off", you instruct the browser not to suggest or autofill values for the form fields, which can prevent unwanted dropdowns or recommendations from appearing. Keep in mind that some browsers may ignore this attribute for security reasons, but it should work in most cases.