

# final\_fixed\_python\_project

May 8, 2025

## 1 Beija Richardson 5/8/2025

### 1.1 Step 1: Connect to Bank Database

```
[1]: def get_credentials(vault_filename):
    try:
        with open(vault_filename, 'r') as file:
            lines = [line.strip() for line in file.readlines()]

            if len(lines) != 2:
                raise ValueError("Vault file must contain exactly two lines,
↪(username, password).")

            username, password = lines
            return username, password

    except FileNotFoundError:
        print(f" Error: Vault file '{vault_filename}' not found.")
        return None, None
    except ValueError as ve:
        print(f" Error: {ve}")
        return None, None
```

```
[3]: username, password = get_credentials('./vault.txt')
print(f"Username: {username}, Password: {password}")
```

Username: Pat, Password: datasciencerules

```
[5]: import psycopg2
connection = psycopg2.connect(
    dbname="bank",
    user="pat",
    password="datasciencerules",
    host="localhost",
    port="5432"
)

if connection:
```

```

    print(" Connection established with the bank database!")
    connection.close()
else:
    print(" Failed to connect.")

```

Connection established with the bank database!

## 1.2 Step 2: Retrieve Transactions for a Valid Month

```

[21]: from db_queries import get_transactions_for_month
df_valid = get_transactions_for_month(connection, 2023, 5)
print(df_valid)

```

Error: connection already closed

	transaction_id	amount	transaction_date
0	-1	-1	None

C:\Users\Luke\Documents\Class5002\Module\_6\python\_project\db\_queries.py:23:  
 UserWarning: pandas only supports SQLAlchemy connectable (engine/connection) or  
 database string URI or sqlite3 DBAPI2 connection. Other DBAPI2 objects are not  
 tested. Please consider using SQLAlchemy.

```
df = pd.read_sql_query(query, connection)
```

## 1.3 Step 3: Retrieve Transactions for an Invalid Month

```

[15]: df_invalid = get_transactions_for_month(connection, 1900, 99)
print(df_invalid)

```

Error: connection already closed

	transaction_id	amount	transaction_date
0	-1	-1	None

C:\Users\Luke\Documents\Class5002\Module\_6\python\_project\db\_queries.py:23:  
 UserWarning: pandas only supports SQLAlchemy connectable (engine/connection) or  
 database string URI or sqlite3 DBAPI2 connection. Other DBAPI2 objects are not  
 tested. Please consider using SQLAlchemy.

```
df = pd.read_sql_query(query, connection)
```

## 1.4 Step 4: Use DatabaseManager Class for Analysis

```

[19]: from db_manager import DatabaseManager
dbm = DatabaseManager("vault.txt")
print(dbm.fetch_transactions(2023, 5))
dbm.plot_transactions_by_day(2023, 5)

```

Error connecting to the database: connection to server at "localhost" (:::1),  
 port 5432 failed: FATAL: password authentication failed for user "Pat"

Error: 'NoneType' object has no attribute 'cursor'

	transaction_id	amount	transaction_date
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```
0          -1      -1          None
Error: 'NoneType' object has no attribute 'cursor'
No valid data available to plot.
```

```
[ ]:
```