Assignment: Task 1: Refactoring to Adhere to SOLID Principles

Course: Software Refactoring
Student: Ruobing Chen
Score: 4.0
Account: ECE

Leonardo da Silva Sousa: While your refactoring is correct, it is not complete: you must create a subpackage as requested in the README and separate contract/interface from implementation (-1). The instruction was to 'Implement the PostgresDriver Class by extending the new interface and moving it to a newly created drivers subpackage.' This would have helped isolate the concrete implementations (PostgresDriver) from the contract (DatabaseDriver). There are several benefits to that:

* Separation of Concerns: Placing the interface in a higher-level package (persistence) and its concrete implementation in a subpackage (persistence.drivers) clearly separates the contract (interface) from the implementation details.

* Encapsulation and Modularity: By isolating the implementation in a subpackage, you can hide the implementation details and only expose the interface.

* Improved Code Organization: Keeping interfaces and implementations in separate packages improves the overall organization of your code. It lets developers quickly locate all interfaces and understand the application's architecture by reviewing the higher-level packages.

* Facilitates Dependency Injection: When interfaces are kept separate from implementations, it is easier to use Dependency Injection (DI) frameworks (like Spring or CDI) to manage dependencies. (Sep 15, 2024 at 3:33pm)