**Ministerul Educaţiei și Cercetării al Republicii Moldova Universitatea Tehnică a Moldovei**

**Facultatea Calculatoare, Informatică și Microelectronică**

**Laboratory work 0:**

Implementing 2 SOLID letters

in a simple project

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## Objectives:

* Implement 2 SOLID letters in a simple project

## Used Design Patterns:

## Strategy Pattern: The Logger interface defines a logging behavior that can be implemented differently by subclasses, such as FileLogger.

## Dependency Injection: Order receives a Logger instance via its constructor, allowing flexible use of different logging strategies without modifying Order.

## Implimentation:

## Define Logger Interface: Create Logger as a base class with a log method.

## Implement FileLogger: Override log in FileLogger to write logs to a file.

## Create Order Class: Order accepts a Logger and logs item actions.

## Create OrderCalculator: Calculates the total of items in Order.

## Use Implementations: Inject FileLogger into Order, perform item actions, and log totals.

## Conclusions:

## Using Strategy and Dependency Injection makes the code modular and testable. Following SOLID principles, each class has a single responsibility, making the design extensible and easy to maintain.

## The Code:

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## The result:

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