SENG 350
- Software Architecture & Design

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Design Patterns

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University of Victoria

Case Study for Online Banking!

Background

- You are part of the development team at a bank tasked with designing a new online banking system.

- The system must allow customers to perform various banking transactions, such as fund transfers, loan payments, bill payments, and account inquiries.

- Each transaction must undergo a series of validation steps before being processed to ensure security, fraud prevention, and regulatory compliance.

- The system must also support the flexible creation of different transaction types based on customer requests. It should be scalable, allowing for the easy addition of new transaction types in the future without requiring changes to the existing codebase.

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Objectives

- Your team must design a transaction processing system where:
  - Transactions are validated through a series of steps.
  - New transaction types can be dynamically created based on the request.
  - The system is extensible, allowing for easy addition of new transactions or validation steps in the future.
  - To achieve this, you must implement the Chain of Responsibility pattern for handling transaction validation and the Factory Method pattern for dynamically creating transaction objects.

Case Study Details

- Make a group of 4.
- Go to Week 7 -> Design Pattern Case Study
- Submit Screenshots of the code and the outputs in Brightspace under Design Pattern Case Study.

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