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DESIGN PATTERNS STARTDOCUMENT

DESIGN PATTERNS

VERSION 1.1

PERSONAL FINANCE TRACKER

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Version Management

Version number	Changes
1.0	Created Document and filled out majority of its chapters
1.1	Updated Uml diagram and proposal sections

The Proposal

This chapter describes the entire application in detail.

Application Description

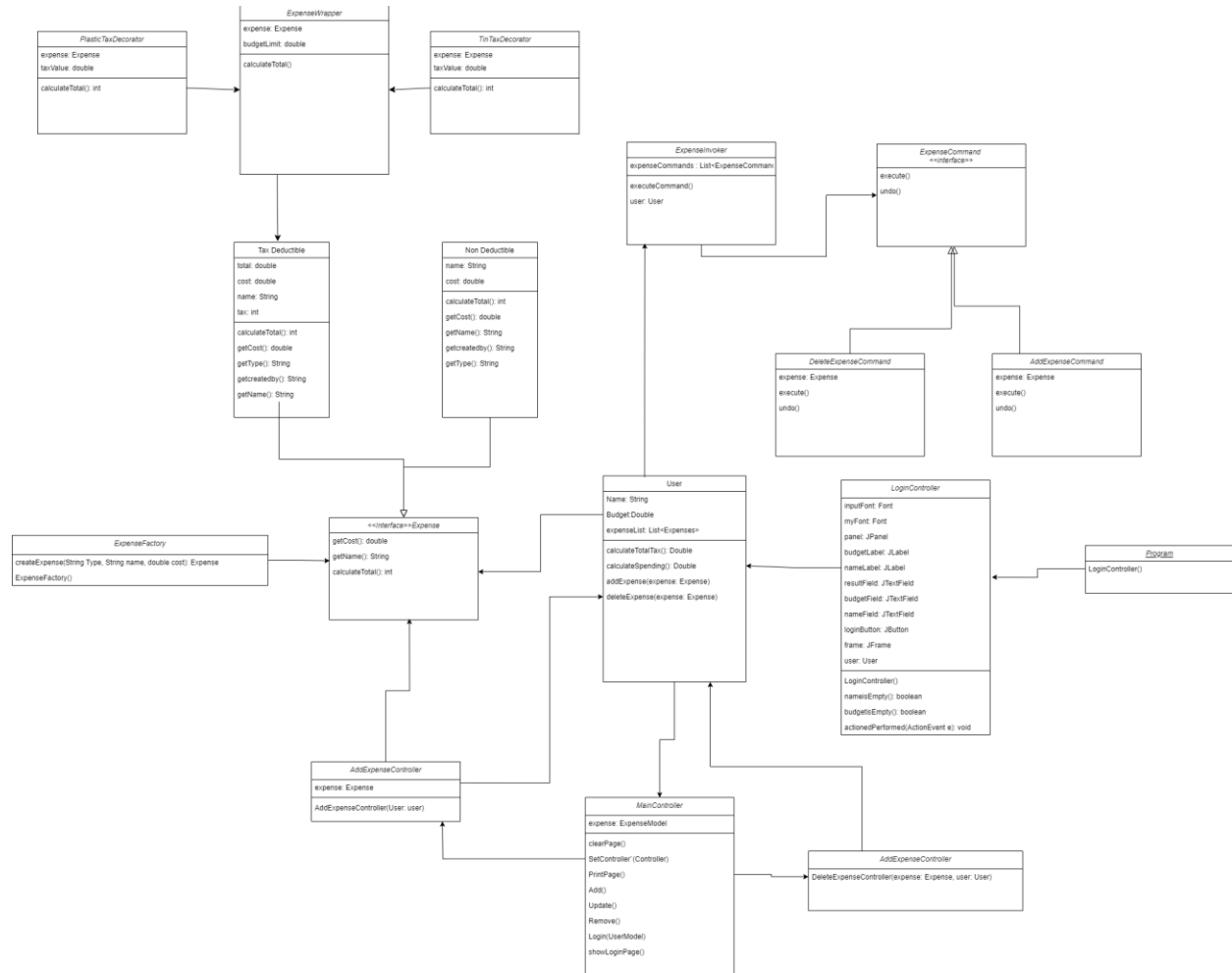
Due to the disbandment of my prior group, I will solely develop a personal finance tracker and implement at least 3 design patterns. Based on the course's description, the application will be fully developed in Java.

Design Patterns to be realised

- Command Design Pattern for controlling CRUD actions like id if a user deletes or adds a new transaction
- Model-View-Controller (MVC) for organizing our app's architecture.
- Factory Design Pattern for assigning a newly created task to an expense categories upon logging their expense.
- Decorator Design Pattern for applying item tax. E.g. a canned drink.

Class Diagram

This chapter entails the UML diagram for the application.



MoSCoW Analysis

This chapter outlines the list of considered for the finance application. In all cases that taxes can be considered, the calculations will be handled according to the Dutch standards with possible discrepancies.

Task	User Story	Must Have	Should Have	Could Have	Won't Have
Dashboard overview of finances (total income, expenses & savings for the month)	User can view a dashboard of all expenses	✓			
	User can add a new expense	✓			
	User can view a log of savings in prior months				✓
Categories for expenses	User's expense can be assigned to a predefined category	✓			
	User can view filter tasks based on these categories			✓	
	Item tax can be applied to taxable items	✓			
Set budgets & track their progress.	User can add a new budget.	✓			
	User is alerted if the current spendings are within 20 percent of that limit				✓
	Monthly budget can be advised by the application from a user's income based on expected saving			✓	
	User can edit budget	✓			