Latex Editor Release Report

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VERSIONS HISTORY

Date	Version	Description	Author
19/04/2019	1	Implementation of the first four User Stories with the Acceptance Tests.	G.NIKITA, E.MOUSELLI, E.KIAFA
22/05/2019	2	Implementation of the last five User Stories with the Acceptance Tests.	G.NIKITA, E.MOUSELLI, E.KIAFA

1 Introduction

This document provides information concerning the **v1.0 and v2.0** release of the project.

1.1 Purpose

Latex is a well known high quality document preparation markup language. It provides a large variety of styles and commands that enable advanced document formatting. Typically, a Latex document is compiled with a tool like MikTex, Lyx, etc. to produce a respective formatted document in pdf, ps, etc. Formatting documents with Latex is a programming like process as it involves the proper usage of Latex commands which are embedded in the document contents. The objective of this project is to develop a simple Latex editor for inexperienced Latex users. The goal of the editor is to facilitate the usage of Latex commands for the preparation of Latex documents. One of the prominent features that distinguishes the LatexEditor from other similar applications is its multi-strategy version tracking functionalities that enable undo and redo actions.

1.2 Document Structure

The rest of this document is structured as follows. Section 2 specifies the acceptance tests that have been employed for this release of the project. Section 3 specifies the main design concepts for this release of the project.

2 Tests

2.1 Tests for User Story 1

Test ID	CreateCommandTestArticle
User Story	Story 1
Test Class	CreateCommand
Description	Creates a CreateCommand object, executes it and compares the contents of the newly created Article with the expected contents of the selected template

Test ID	CreateCommandTestBook
User Story	Story 1
Test Class	CreateCommand
Description	Creates a CreateCommand object, executes it and compares the contents of the newly created Book with the expected contents of the selected template

Test ID	CreateCommandTestLetter
User Story	Story 1
Test Class	CreateCommand
Description	Creates a CreateCommand object, executes it and compares the contents of the newly created Letter with the expected contents of the selected template

Test ID	CreateCommandTestReport
User Story	Story 1
Test Class	CreateCommand
Description	Creates a CreateCommand object, executes it and compares the contents of the newly created Report with the expected contents of the selected template

Test ID	CreateCommandTestEmpty
User Story	Story 1
Test Class	CreateCommand
Description	Creates a CreateCommand object, executes it and compares the contents of the newly created empty document with the expected contents of the selected template

2.2 Tests for User Story 2

Test ID	EditCommandTest
User Story	Story 2
Test Class	EditCommand
Description	Creates an EditCommand that changes the contents of a document, executes it and get sthe new contents of the document (getContents()) and compares them against the contents that have been set.

2.3 Tests for User Story 3

Test ID	AddLatexCommandTestChapter AddLatexCommandTestSection AddLatexCommandTestSubsection AddLatexCommandTestSubsubsectio n AddLatexCommandTestItemize AddLatexCommandTestEnumerate AddLatexCommandTestTable AddLatexCommandTestFigure
User Story	Story 3
Test Class	AddLatexCommand
Description	Creates an AddLatexCommand that changes the contents of a document, executes it and gets the new contents of the document (getContents()) and compares them against the contents that have been set

2.4 Tests for User Story 4

Test ID	EnableVersionsManagementCommandTestStable EnableVersionsManagementCommandTestVolatil
User Story	Story 4
Test Class	EnableVersionsManagementCommand
Description	Creates an EnableVersionsManagementCommand, executes it, create an EditCommand, executes it, gets the contents of the previous version of the document and compares them against the contents of the document before the edit action.

2.5 Tests for User Story 5

Test ID	ChangeVersionsStrategyCommandToStableTest ChangeVersionsStrategyCommandToVolatileTest
User Story	Story 5
Test Class	ChangeVersionsStrategyCommand
Description	Creates a ChangeVersionsStrategyCommand, executes it,and checks whether the strategy changed.

2.6 Tests for User Story 6

Test ID	DisableVersionsManagementCommandTest
User Story	Story 6
Test Class	DisableVersionsManagementCommand
Description	Creates a DisableVersionsManagementCommand, executes it, creates an EditCommand that changes the contents of the document, execute it and check if the versions history remains unchanged.

2.7 Tests for User Story 7

Test ID	RollbackToPreviousVersionCommandTest
User Story	Story 7
Test Class	RollbackToPreviousVersionCommand
Description	Creates a RollbackToPreviousVersionCommand, executes it, and checks whether the contents of the current document match with the contents of the previous version.

2.8 Tests for User Story 8

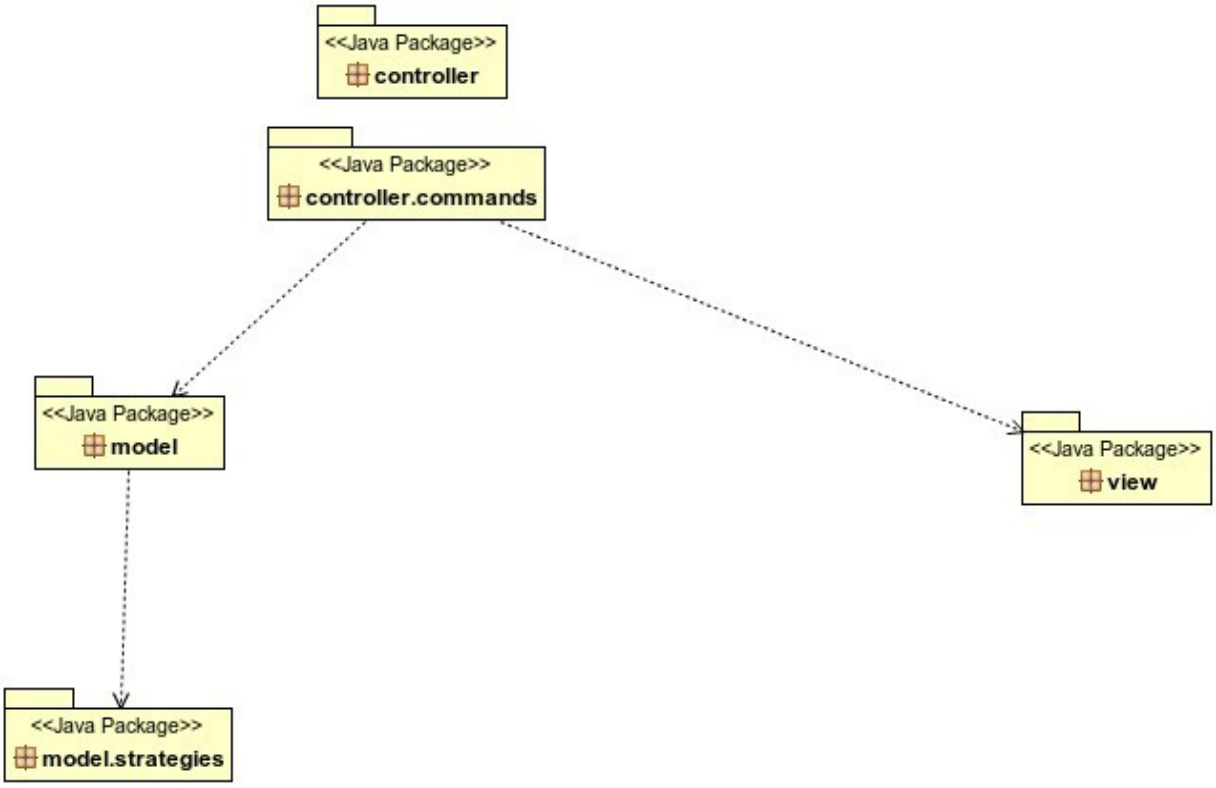
Test ID	SaveCommandTest
User Story	Story 8
Test Class	SaveCommand
Description	Creates a SaveCommand, executes it, and checks whether the contents of the current document match with the contents of the file that has been saved to disk.

2.9 Tests for User Story 9

Test ID	LoadCommandTest
User Story	Story 9
Test Class	SaveCommand
Description	Creates a LoadCommand, executes it, gets the contents of the current version of a document and checks whether the contents match with the contents of the file that have been loaded from disk .

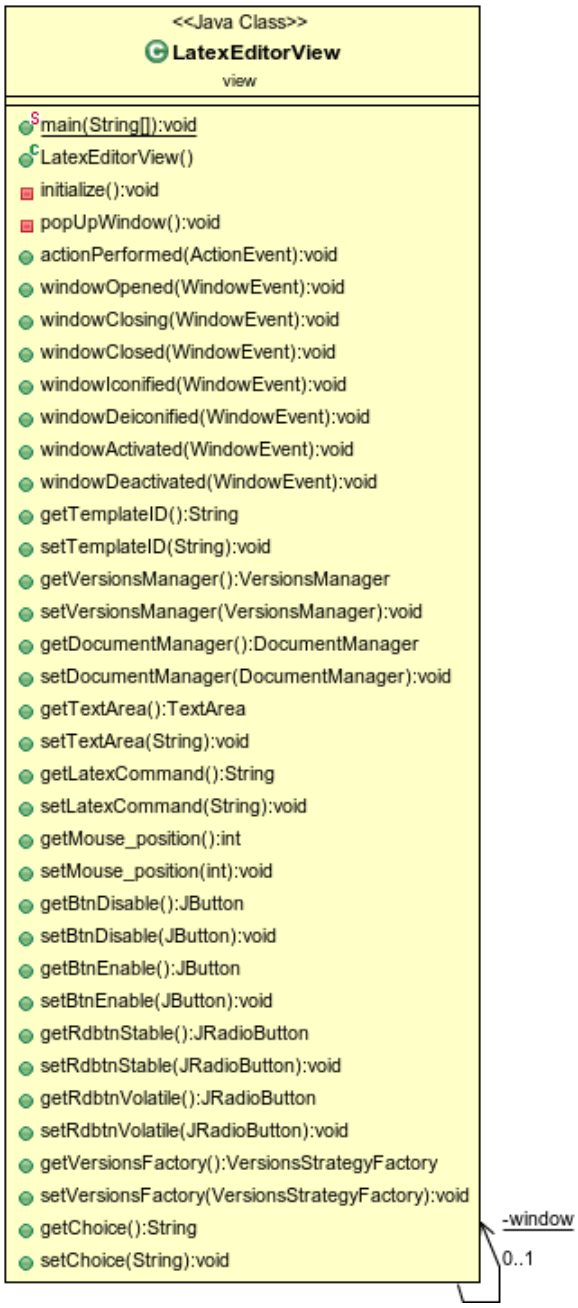
3 Design

3.1 Architecture

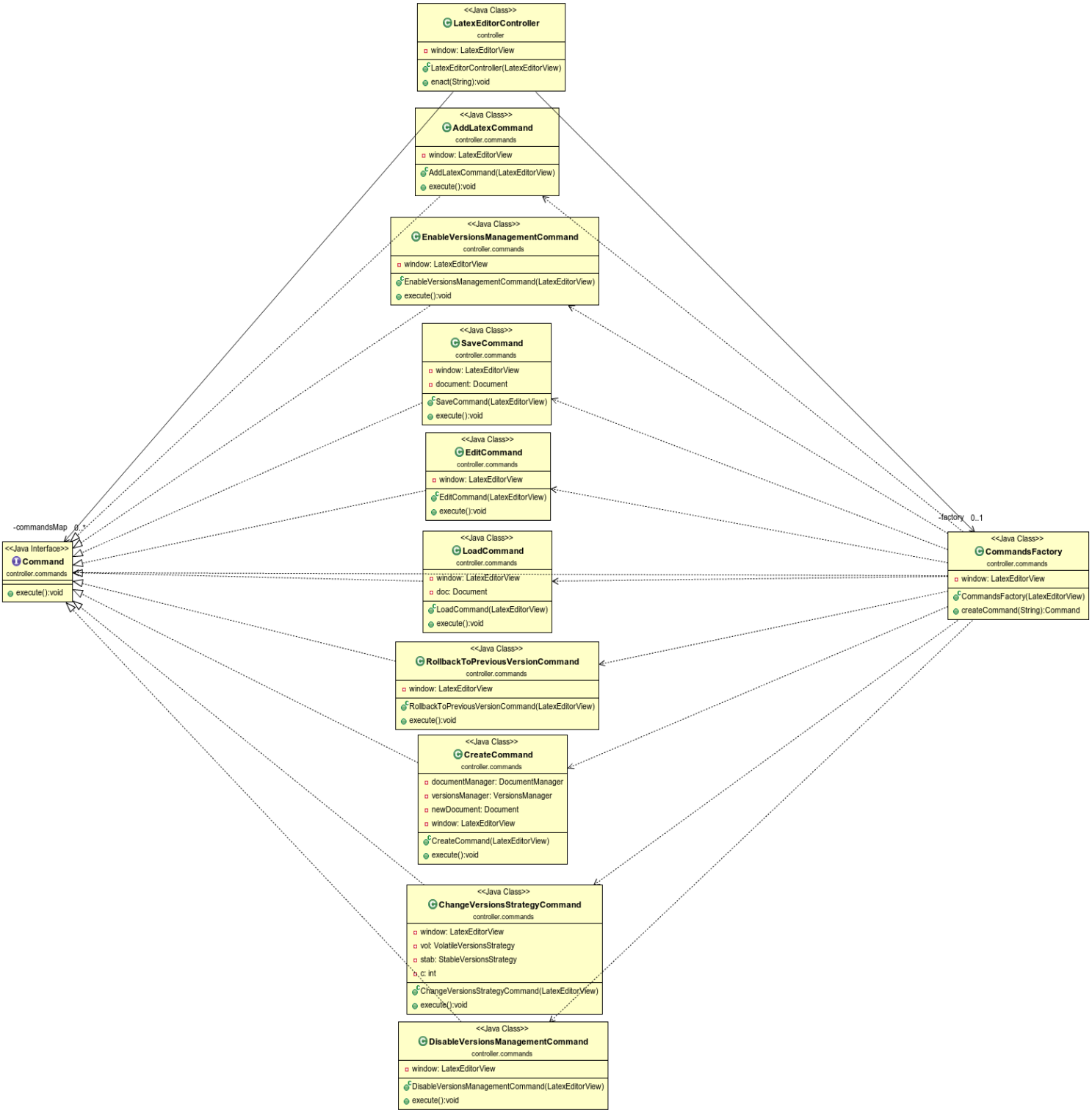


3.2 Design

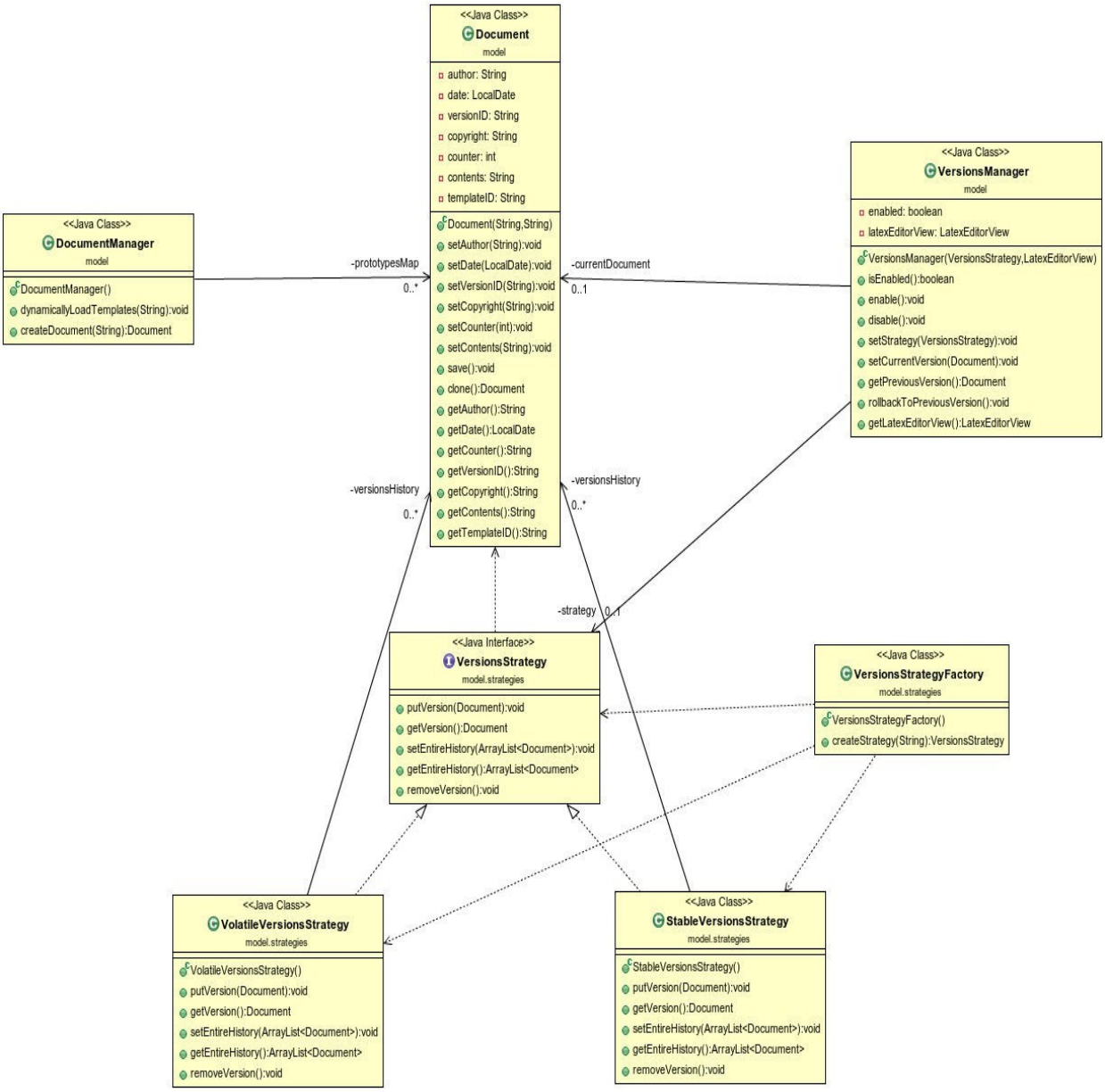
3.2.1 UML View Package



3.2.2 UML Controller Package



3.2.3 UML Model Package



Class Name: LatexEditorView	
Responsibilities: ▪ Creates the application window ▪ Implements necessary buttons	**Collaborations:** ▪ VersionsManager ▪ DocumentManager ▪ LatexEditorController

Class Name: Document	
Responsibilities: ▪ Contains the needed information for each document(versionID,date etc)	**Collaborations:** ▪ VersionsManager ▪ DocumentManager ▪ VersionsStrategy

Class Name: DocumentManager	
Responsibilities: ▪ Loads the templates from memory ▪ Creates new document	**Collaborations:** ▪ Document

Class Name: VersionsManager	
Responsibilities: ▪ Enables/Disables tracking ▪ Updates versions' history ▪ Rolls back to previous versions ▪ Updates current version	**Collaborations:** ▪ Document ▪ VersionsStrategy

Class Name: LatexEditorController	
Responsibilities: ▪ Keeps a map of the available commands ▪ Finds selected command and executes it.	**Collaborations:** ▪ CommandFactory ▪ Command

Class Name: CommandsFactory	
Responsibilities: ▪ Creates the new command objects to put in the command-map	**Collaborations:** ▪ LatexEditorController ▪ CreateCommand ▪ ....

Class Name: CreateCommand	
Responsibilities: ▪ Creates the new document and sets it as the new current version	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController

Class Name: EditCommand	
Responsibilities: ▪ Updates contents of current document from text area	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController

Class Name: AddLatexCommand	
Responsibilities: ▪ Updates contents of current document with chosen LatexCommand ▪ Displays command in text area where the cursor is placed	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController

Class Name: EnableVersionsManagementCommand	
Responsibilities: ▪ Activates the volatile/stable buttons ▪ Sets chosen strategy	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController ▪ VersionsStrategy ▪ VersionsStrategyFactory

Class Name: ChangeVersionsStrategyCommand	
Responsibilities: ▪ Changes strategy from Volatile to Stable or from Stable to Volatile ▪ Sets chosen strategy	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController ▪ VersionsStrategy ▪ VersionsStrategyFactory ▪ VolatileVersionsStrategy ▪ StableVersionsStrategy

Class Name: DisableVersionsManagementCommand	
Responsibilities: ▪ Disactivates the volatile/stable buttons	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController

Class Name: RollbackToPreviousVersionCommand	
Responsibilities: ▪ Rollback to a previous version of the Latex document ▪ Updates contents of text area	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController ▪ VersionsStrategy ▪ VersionsStrategyFactory

Class Name: SaveCommand	
Responsibilities: ▪ Saves current document in its own history folder on disk storage	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController ▪ VersionsStrategy ▪ VersionsStrategyFactory ▪ Document

Class Name: LoadCommand	
Responsibilities: ▪ Deserializes document ▪ Sets last version of document as current document ▪ Loads its history	**Collaborations:** ▪ VersionsManager ▪ Command ▪ CommandFactory ▪ LatexEditorView ▪ LatexEditorController ▪ VersionsStrategy ▪ VersionsStrategyFactory ▪ Document