
Text2SpeechEditor

Sprint No 1 Report

Chocolate Dreamer
Paraskevi Mega, 2483

VERSIONS HISTORY

Date	Version	Description	Author
25/05/2020	1.0	Text to Speech editor implementation	Paraskevi Mega

1 Introduction

This document provides information concerning the 1st sprint of the project.

1.1 Purpose

1.2 Document Structure

The rest of this document is structured as follows. Section 2 describes out Scrum team and specifies the this Sprint's backlog. Section 3 specifies the main design concepts for this release of the project.

2 Scrum team and Sprint Backlog

2.1 Scrum team

Product Owner	Paraskevi Mega
Scrum Master	Paraskevi Mega
Development Team	Paraskevi Mega

2.2 Sprint Backlog

User stories that have been realized:

- [US-1] Create new empty document.
- [US-2] Edit document.
- [US-3] Save document.
- [US-4] Open document.
- [US-5] Transform contents of the document to speech.
- [US-6] Transform selected line to speech.

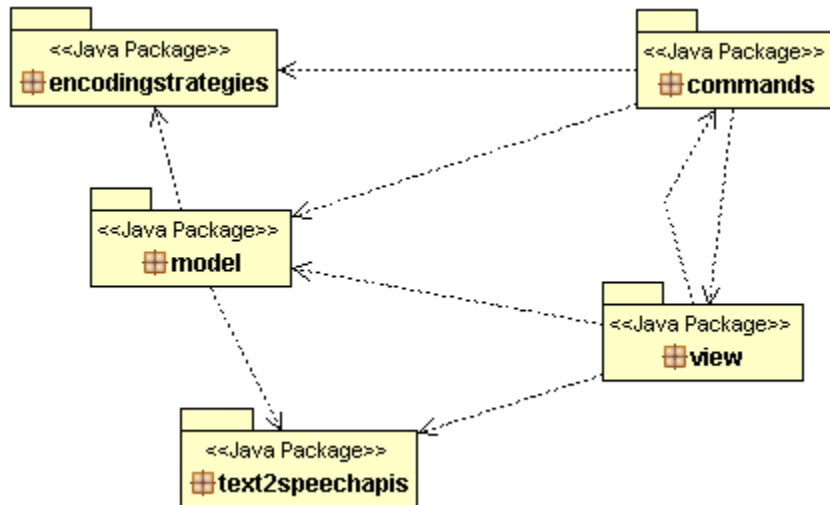
- [US-7] Transform reversed contents of the document to speech.
- [US-8] Transform reversed-selected line to speech.
- [US-9] Transform encoded contents of the document to speech.
- [US-10] Transform encoded-selected line to speech.
- [US-11] Tune text's encoding technique.
- [US-12] Tune audio parameters.
- [US-13] Store performed commands and re-execute them.

Tests of user stories that have been realized:

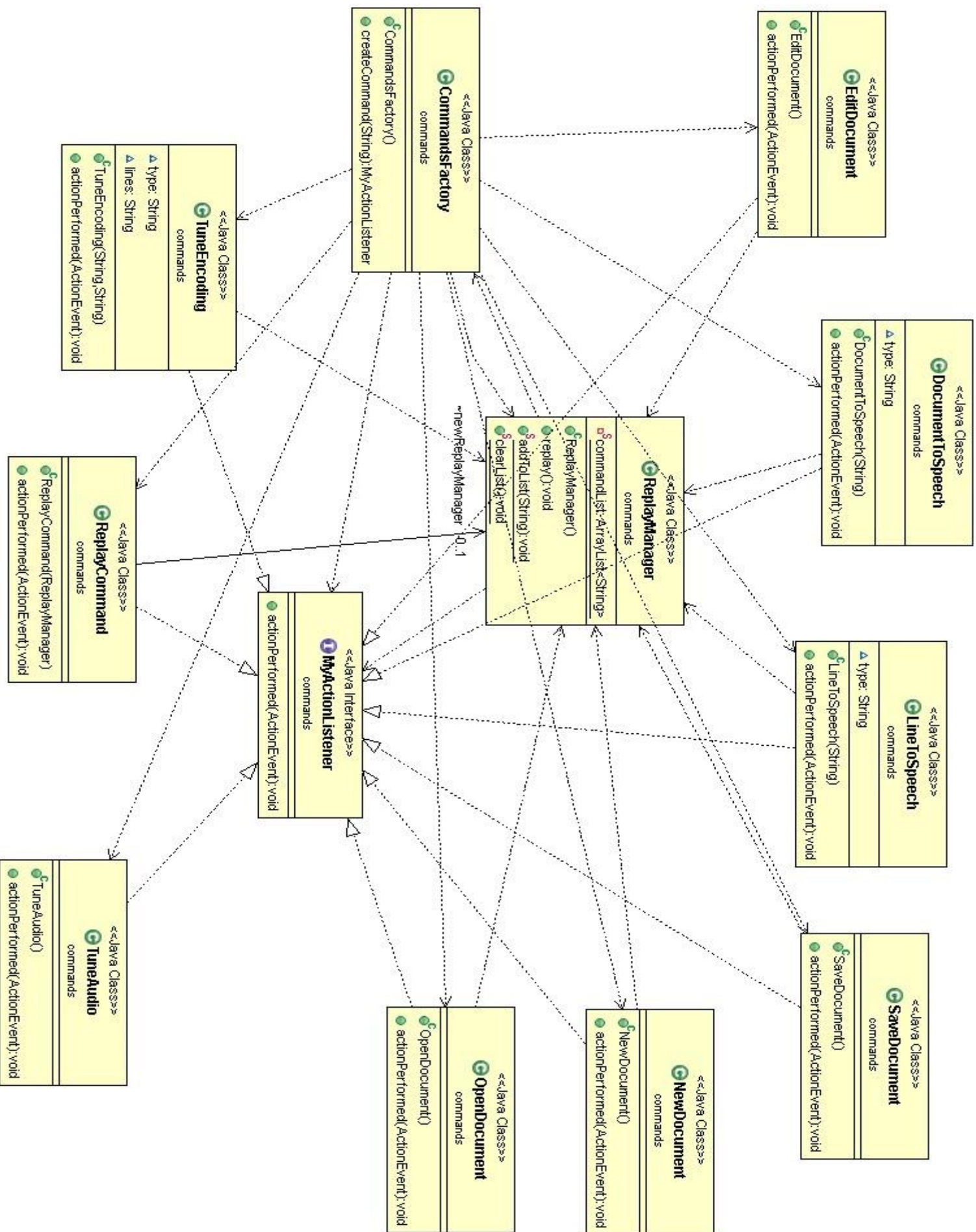
- [US-1] Tests the creation of a new empty document.
- [US-2] Tests the changed contents of the document.
- [US-3] Tests saved document's contents.
- [US-4] Tests current document's contents.
- [US-5] Tests fake speech of transformed contents of the document.
- [US-6] Tests fake speech of transformed line.
- [US-7] Tests fake speech of transformed reversed contents of the document.
- [US-8] Tests fake speech of transformed line.
- [US-9] Tests fake speech of transformed encoded contents of the document.
- [US-10] Tests fake speech of transformed line.
- [US-11] Tests audio parameters of fake speech.
- [US-12] Tests change of the strategy's type.
- [US-13] Tests fake speech of the stored commands.

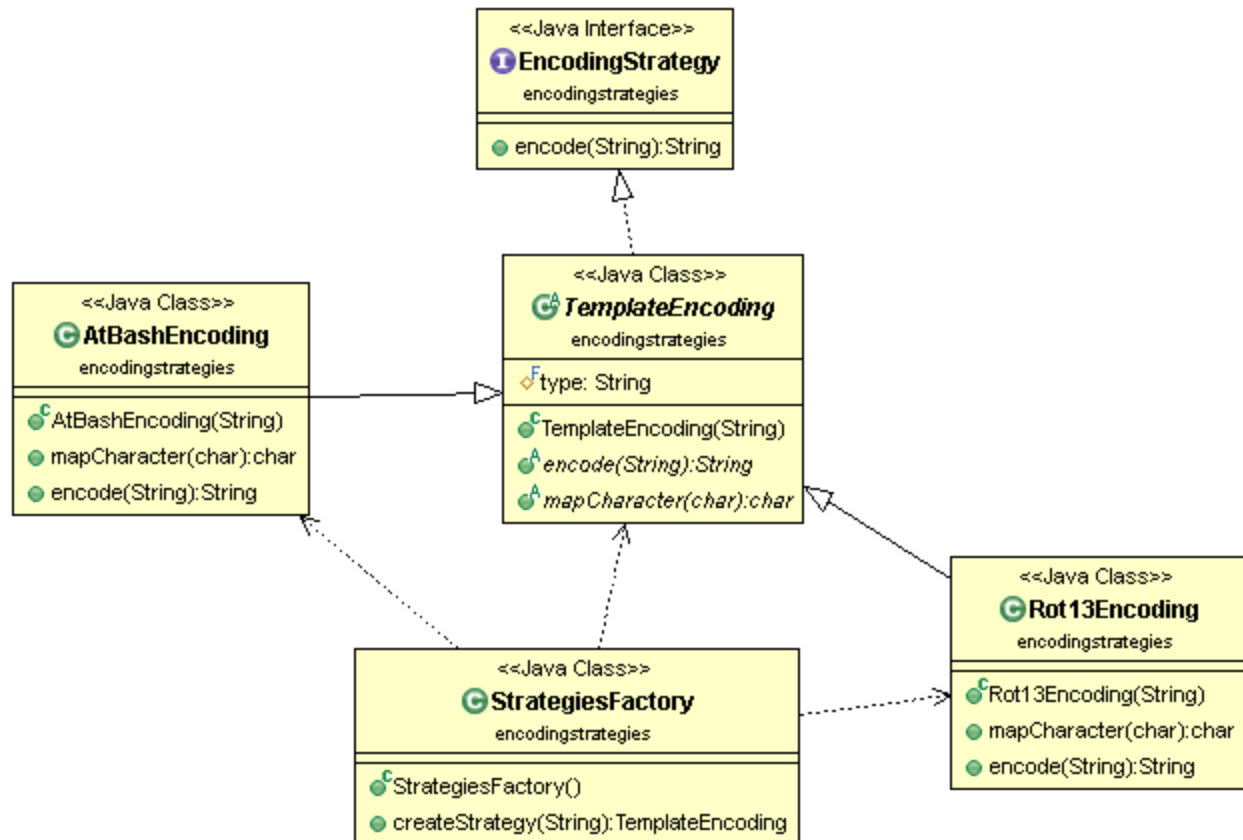
3 Design

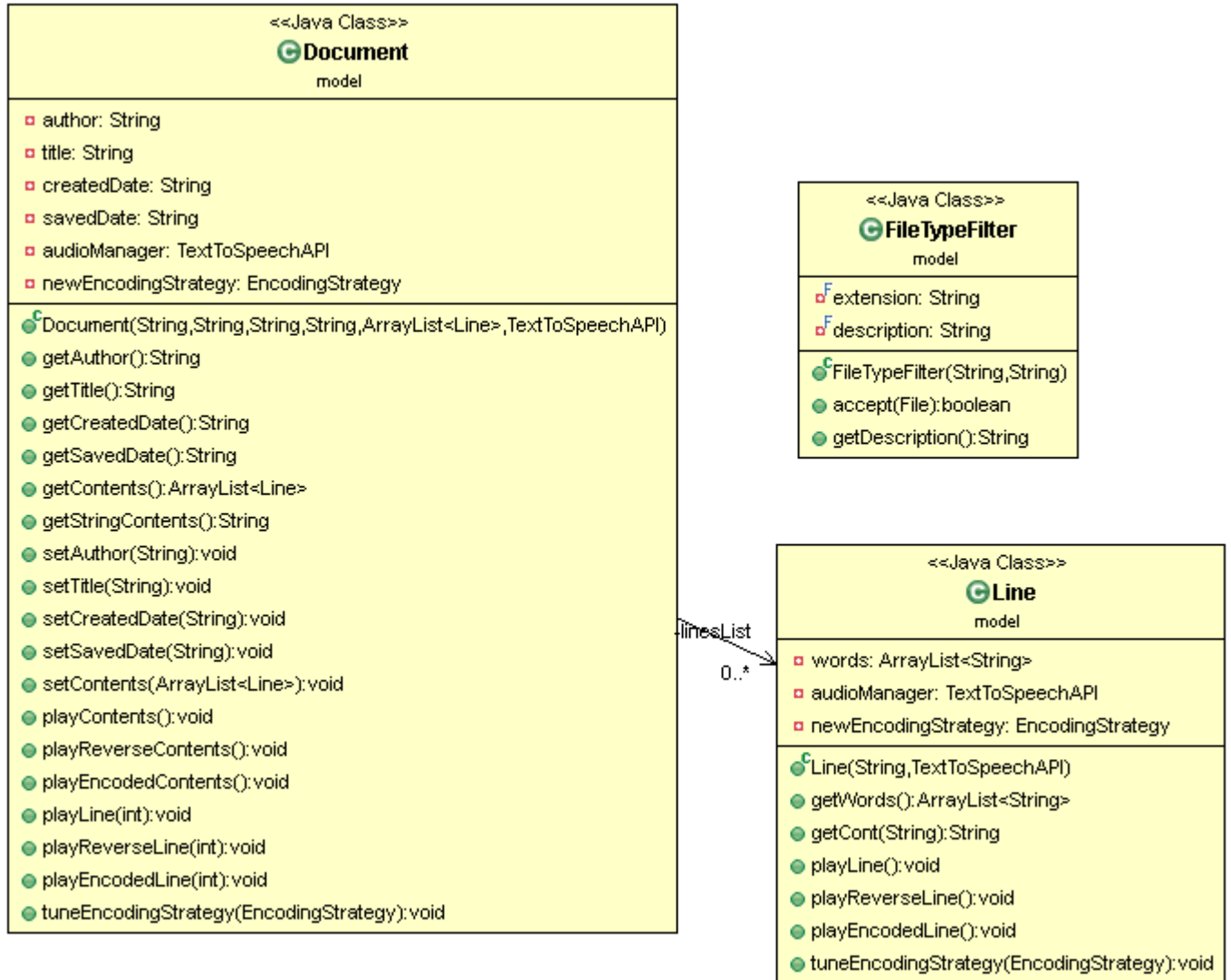
3.1 Architecture

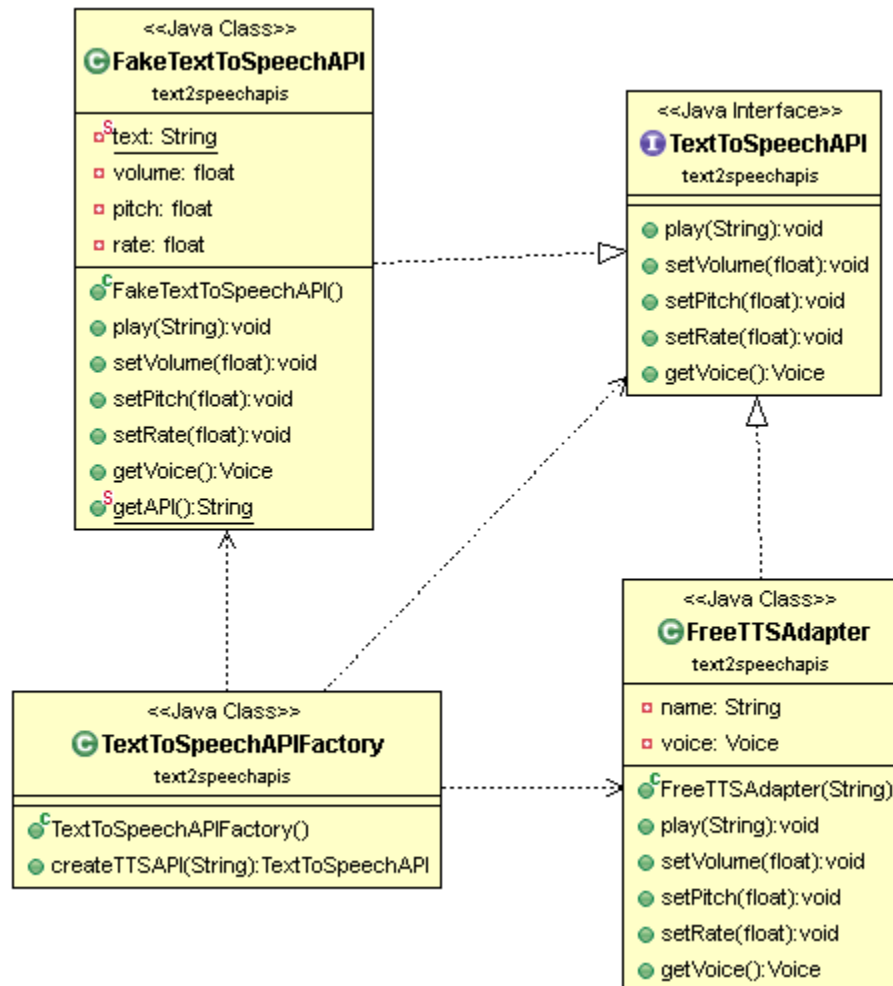


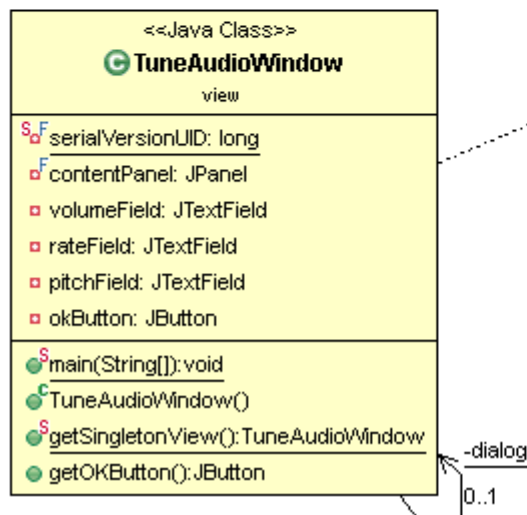
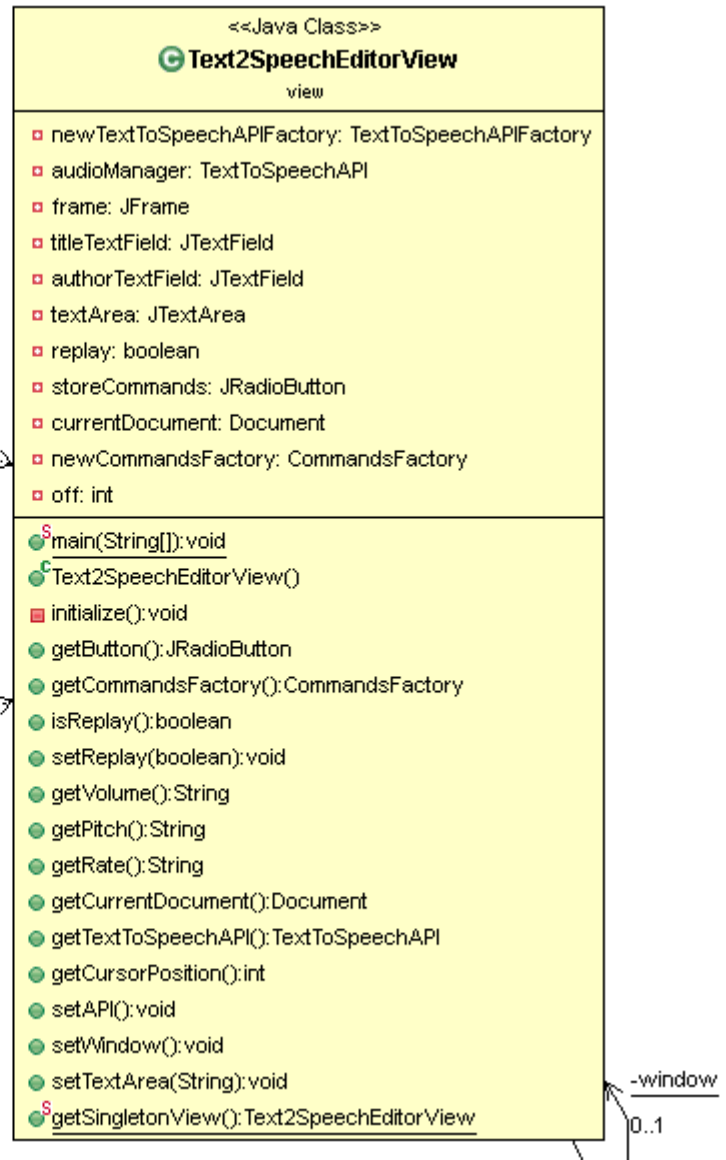
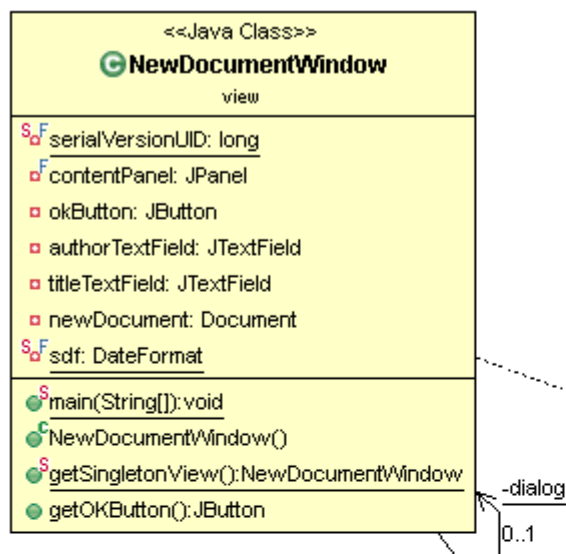
3.2 Design











Class Name: CommandsFactory	
Responsibilities: <ul style="list-style-type: none"> Gets the asked command and returns the suitable MyActionListener object. 	Collaborations: <ul style="list-style-type: none"> EditDocument DocumentToSpeech LineToSpeech SaveDocument NewDocument OpenDocument MyActionListener ReplayManager TuneAudio ReplayCommand TuneEncoding

Class Name: DocumentToSpeech	
Responsibilities: <ul style="list-style-type: none"> Gets the document, checks the type of choice that have been selected and plays the contents. If it is not replay mode and the store commands choice (at Replay Commands button) is enable, adds to the ReplayManager's list the command. 	Collaborations: <ul style="list-style-type: none"> ReplayManager MyActionListener Text2SpeechEditorView Document

Class Name: EditDocument	
Responsibilities: <ul style="list-style-type: none"> Gets the current document, with all the changes. If it is not replay mode and the store commands choice (at Replay Commands button) is enable, adds to the ReplayManager's list the command. 	Collaborations: <ul style="list-style-type: none"> ReplayManager MyActionListener Text2SpeechEditorView

Class Name: LineToSpeech	
Responsibilities: <ul style="list-style-type: none"> ▪ Gets the document and the position of cursor, checks the type of choice that have been selected and plays the contents. ▪ If it is not replay mode and the store commands choice (at Replay Commands button) is enable, adds to the ReplayManager's list the command. 	Collaborations: <ul style="list-style-type: none"> ▪ ReplayManager ▪ MyActionListener ▪ Text2SpeechEditorView ▪ Document

Class Name: MyActionListener	
Responsibilities: <ul style="list-style-type: none"> ▪ It is an interface which implement all the commands. (It extends ActionListener.) 	Collaborations: <ul style="list-style-type: none"> ▪ -

Class Name: NewDocument	
Responsibilities: <ul style="list-style-type: none"> ▪ Creates a newDocumentWindow and activates it. ▪ If it is not replay mode and the store commands choice (at Replay Commands button) is enable, adds to the ReplayManager's list the command. 	Collaborations: <ul style="list-style-type: none"> ▪ ReplayManager ▪ MyActionListener ▪ NewDocumentWindow ▪ Text2SpeechEditorView

Class Name: OpenDocument	
Responsibilities: <ul style="list-style-type: none"> ▪ Opens a windows, in which a file is selected. Then sets at the current document and at the main's window fields, the contents of the selected file. ▪ If it is not replay mode and the store commands choice (at Replay Commands button) is enable, adds to the ReplayManager's list the command. 	Collaborations: <ul style="list-style-type: none"> ▪ ReplayManager ▪ MyActionListener ▪ Document ▪ Line ▪ FileTypeFilter ▪ Text2SpeechEditorView

Class Name: ReplayCommand	
Responsibilities: <ul style="list-style-type: none"> ▪ Creates a ReplayManager and calls the replay method. 	Collaborations: <ul style="list-style-type: none"> ▪ ReplayManager ▪ MyActionListener

Class Name: ReplayManager	
Responsibilities: <ul style="list-style-type: none"> ▪ Changes the value of replay at the Text2SpeechEditorView to true, so as not added to list the same commands. ▪ Runs the list and calls the commands throw the CommandsFactory class. ▪ Adds the caller command to list. ▪ Clears the list of commands. 	Collaborations: <ul style="list-style-type: none"> ▪ MyActionListener ▪ CommandsFactory ▪ Text2SpeechEditorView

Class Name: SaveDocument	
Responsibilities: <ul style="list-style-type: none"> ▪ Gets the current document and sets to it the saved date and the created date if it is empty. ▪ Opens a window, with filter .text of files, to choose the path and the name of the file that it will be saved. ▪ If it is not replay mode and the store commands choice (at Replay Commands button) is enable, adds to the ReplayManager's list the command. 	Collaborations: <ul style="list-style-type: none"> ▪ ReplayManager ▪ MyActionListener ▪ Document ▪ FileTypeFilter ▪ Text2SpeechEditorView

Class Name: TuneAudio	
Responsibilities: <ul style="list-style-type: none"> ▪ Creates a TuneAudioWindow window and activates it. 	Collaborations: <ul style="list-style-type: none"> ▪ MyActionListener ▪ TuneAudioWindow

Class Name: TuneEncoding	
Responsibilities: <ul style="list-style-type: none"> ▪ Checks for the selected encoded technique, for replay mode and the store command choice (at Replay Commands button) if it is enable to add to the ReplayManager's list the command and creates the the suitable encoded technique for the current document. ▪ Checks what is asked to encoded and plays the suitable contents. 	Collaborations: <ul style="list-style-type: none"> ▪ ReplayManager ▪ MyActionListener ▪ StrategiesFactory ▪ Text2SpeechEditorView

Class Name: AtBashEncoding	
Responsibilities: <ul style="list-style-type: none"> ▪ Gets a string and returns it converted with atbash technique. 	Collaborations: <ul style="list-style-type: none"> ▪ TemplateEncoding

Class Name: EncodingStrategy	
Responsibilities: <ul style="list-style-type: none"> ▪ Implements the interface for encoding techniques. 	Collaborations: <ul style="list-style-type: none"> ▪ -

Class Name: Rot13Encoding	
Responsibilities: <ul style="list-style-type: none"> ▪ Gets a string and returns it converted with rot13 technique. 	Collaborations: <ul style="list-style-type: none"> ▪ TemplateEncoding

Class Name: StrategiesFactory	
Responsibilities: <ul style="list-style-type: none"> ▪ Gets a text and returns the suitable encoding object. 	Collaborations: <ul style="list-style-type: none"> ▪ AtBashEncoding ▪ TemplateEncoding ▪ Rot13Encoding

Class Name: TemplateEncoding	
Responsibilities: <ul style="list-style-type: none"> ▪ It is an abstract class that implements EncodingStrategy interface. 	Collaborations: <ul style="list-style-type: none"> ▪ EncodingStrategy

Class Name: Document	
Responsibilities: <ul style="list-style-type: none"> ▪ Sets the fields of a document and gives them with the suitable methods. ▪ Returns the contents of a document as string or arraylist of strings. ▪ Calls the play method of Line object to play contents or a line of the document normal, reversed or encoded. ▪ Sets the encoding technique for the document. 	Collaborations: <ul style="list-style-type: none"> ▪ Line ▪ EncodingStrategy ▪ TextToSpeechAPI

Class Name: FileTypeFilter	
Responsibilities: <ul style="list-style-type: none"> ▪ Sets the filter of files to be opened or saved. 	Collaborations: <ul style="list-style-type: none"> ▪ -

Class Name: Line	
Responsibilities: <ul style="list-style-type: none"> ▪ Gets a line string and convert it to arraylist of strings. ▪ Plays a line normal, reversed or encoded. ▪ Gives the line as string or arraylist of strings. ▪ Sets the encoding strategy for a line. 	Collaborations: <ul style="list-style-type: none"> ▪ EncodingStrategy ▪ TextToSpeechAPI

Class Name: FakeTextToSpeechAPI	
Responsibilities: <ul style="list-style-type: none"> ▪ Keeps the text that have been selected to played. ▪ Returns the text that have been played. 	Collaborations: <ul style="list-style-type: none"> ▪ TextToSpeechAPI

Class Name: FreeTTSAdapter	
Responsibilities: <ul style="list-style-type: none"> Creates a voice that speaks and accepts some changes to its parameters. Return the voice. 	Collaborations: <ul style="list-style-type: none"> TextToSpeechAPI

Class Name: TextToSpeechAPI	
Responsibilities: <ul style="list-style-type: none"> Implements an interface for text to speech audio techniques. 	Collaborations: <ul style="list-style-type: none"> -

Class Name: TextToSpeechAPIFactory	
Responsibilities: <ul style="list-style-type: none"> Creates the suitable audio technique, by a given type. 	Collaborations: <ul style="list-style-type: none"> FakeTextToSpeechAPI TextToSpeechAPI FreeTTSAdapter

Class Name: NewDocumentWindow	
Responsibilities: <ul style="list-style-type: none"> If OK pressed, creates a new document with the given title and author. It also creates and sets the creation date. Gives the NewDocumentWindow object and the OKButton. 	Collaborations: <ul style="list-style-type: none"> Text2SpeechEditorView NewDocumentWindow Document Line

Class Name: Text2SpeechEditorView	
Responsibilities: <ul style="list-style-type: none"> ▪ Implements the main view window with buttons, which when pressed do the suitable action. ▪ Restore Audio parameters to their default values. ▪ Clears the list of stored commands. ▪ Gives and sets the values of variables that used. ▪ Gives the current document, the cursor's position, the TextToSpeechAPI object and the Text2SpeechEditorView window. ▪ Sets the TextToSpeechAPI, the fields of the window and the text area of contents. 	Collaborations: <ul style="list-style-type: none"> ▪ Text2SpeechEditorView ▪ CommandsFactory ▪ ReplayManager ▪ Document ▪ Line ▪ TextToSpeechAPI ▪ TextToSpeechAPIFactory

Class Name: TuneAudioWindow	
Responsibilities: <ul style="list-style-type: none"> ▪ Appears the current values of rate, pitch and volume. If OK pressed, sets the new values to the parameters of voice. ▪ Gives the TuneAudio object and the OKButton. 	Collaborations: <ul style="list-style-type: none"> ▪ Text2SpeechEditorView ▪ TuneAudioWindow