

Audio Module Technical Design Specification

VERSION 2.0

DECEMBER 10, 2021

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Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	

Revision History

Date	Version	Description	Author
11/30/2021	draft	Setup the boilerplate	Maribel Gershman
12/01/2021	1.0	Introduction, Purpose Scope	“
12/03/2021	1.1	General Design and Implementation Guidelines	“
12/04/2021	2.0	Added all the diagrams	“

Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	

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Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	

Table of Contents

Introduction	4
Purpose.....	4
Scope.....	4
Definitions, Acronyms, and Abbreviations	4
References.....	4
Overview	4
General Design and Implementation Guidelines	5
Database Design Guidelines.....	7
Architectural Design Guidelines	8
UML Stereotypes.....	9

Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	

Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	

Design Guidelines

Introduction

The Technical Design Specification document provides an overview of the purpose, definitions, acronyms, abbreviations, references and of the design guidelines as they are related to the Audio Module with is to be used as part of the Mobile Interview Application.

Purpose

The purpose of this document is to communicate the design standards, conventions and idioms to be used in the design of the system. This document is to be used in conjunction with the AUDIO Software Requirements Specification document.

Scope

The Technical Design Specifications document affects how the Google Speech to Text Application Programming Interface (API) is used within the Audio Module.

Definitions, Acronyms, and Abbreviations

MIA	Mobile Interview Application
AM	Audio Module
FEM	Front End Module
BEM	Back End Module
WSM	Web Services Module
GST	Google Speech to Text
API	Application Programming Interface
COTS	Commercial Off the Shelf
FAQ	Frequently Asked Questions

References

This document may reference diagrams contained in the most recent version of the Audio Software Requirements Specifications and/or the most recent version of the Audio Test Case Specification Document. This document may also reference unidentified information due to the lack of its availability but does denote where such missing information could be filled in during an updated version of this document.

Overview

Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	

The remainder of this document contains diagrams depicting the interconnections between each of the components in the AM

General Design and Implementation Guidelines

This section of the document outlines the design and implementation of the AM using the GST and how it interfaces with the FEM and the BEM through the WSM. At the time of this document's writing not all information was available from the WSM Team. In those instances, we have made some assumptions and implemented options in preparation for future enhancements. Specifically, when the WSM Team determines where the file to be processed will be obtained from and where the produced data will be delivered.

The AM can was built in such a manner that it may be considered a Commercial Off the Shelf (COTS) product.

The following diagrams outline:

How to map the design into implementation

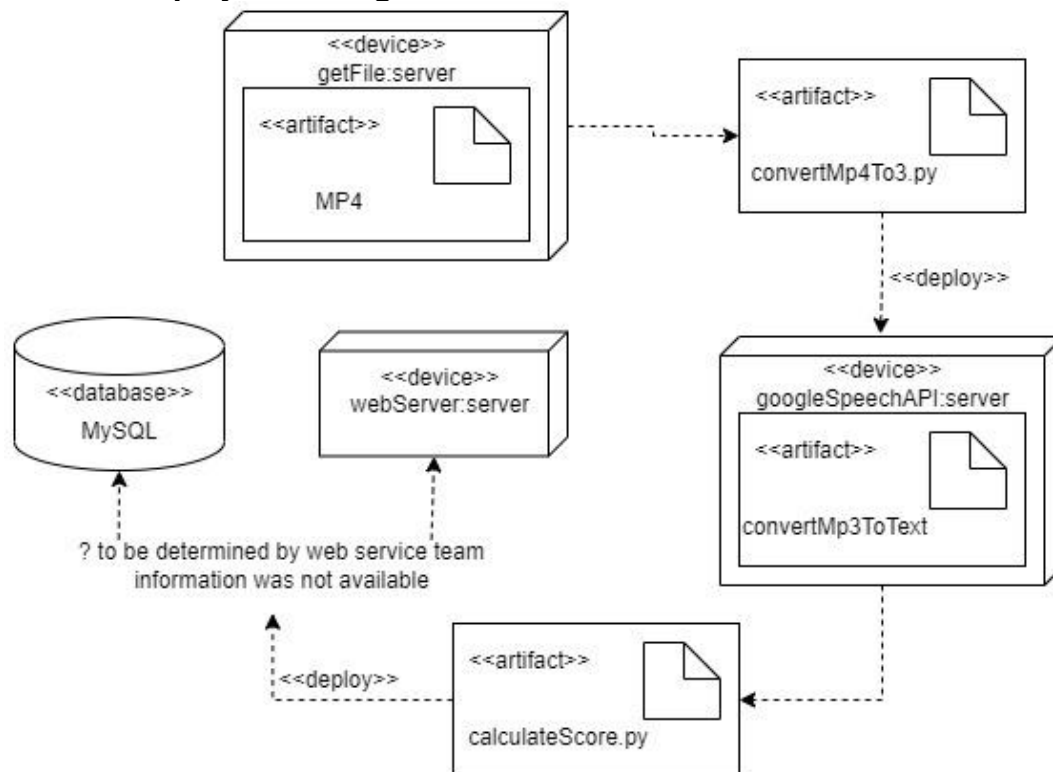
Specify interfaces on subsystems

Establish software accessibility among modules and the overall Mobile Interview Application

Identify the reusable component of the AM

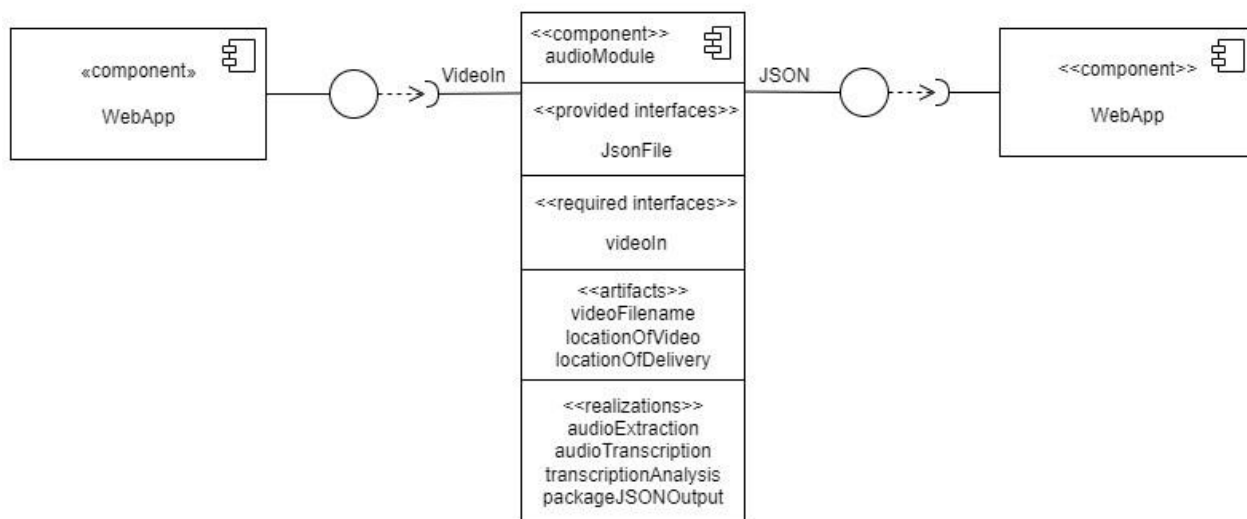
The transaction management through the WST (currently undefined)

Context Deployment Diagram

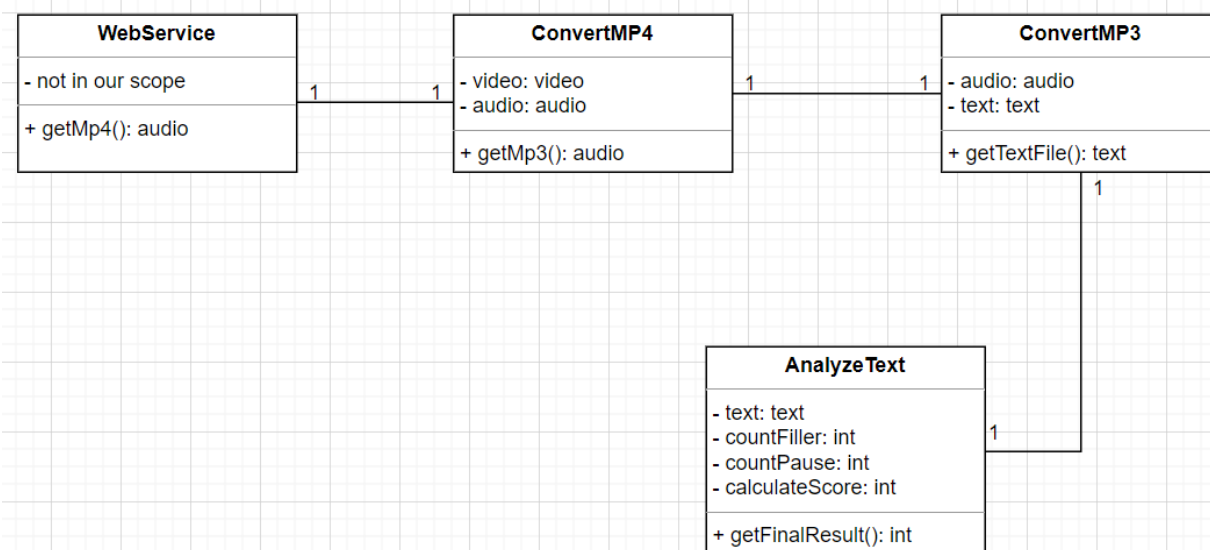


Component Diagram

Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	

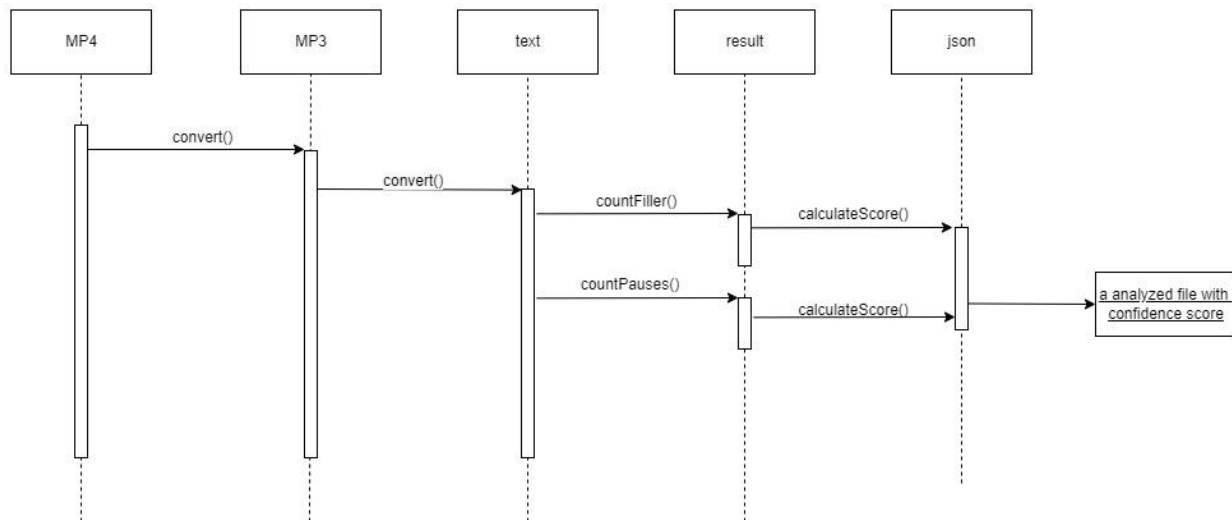


Class Hierarchy & Relationship Diagrams



Sequences Diagrams

Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	



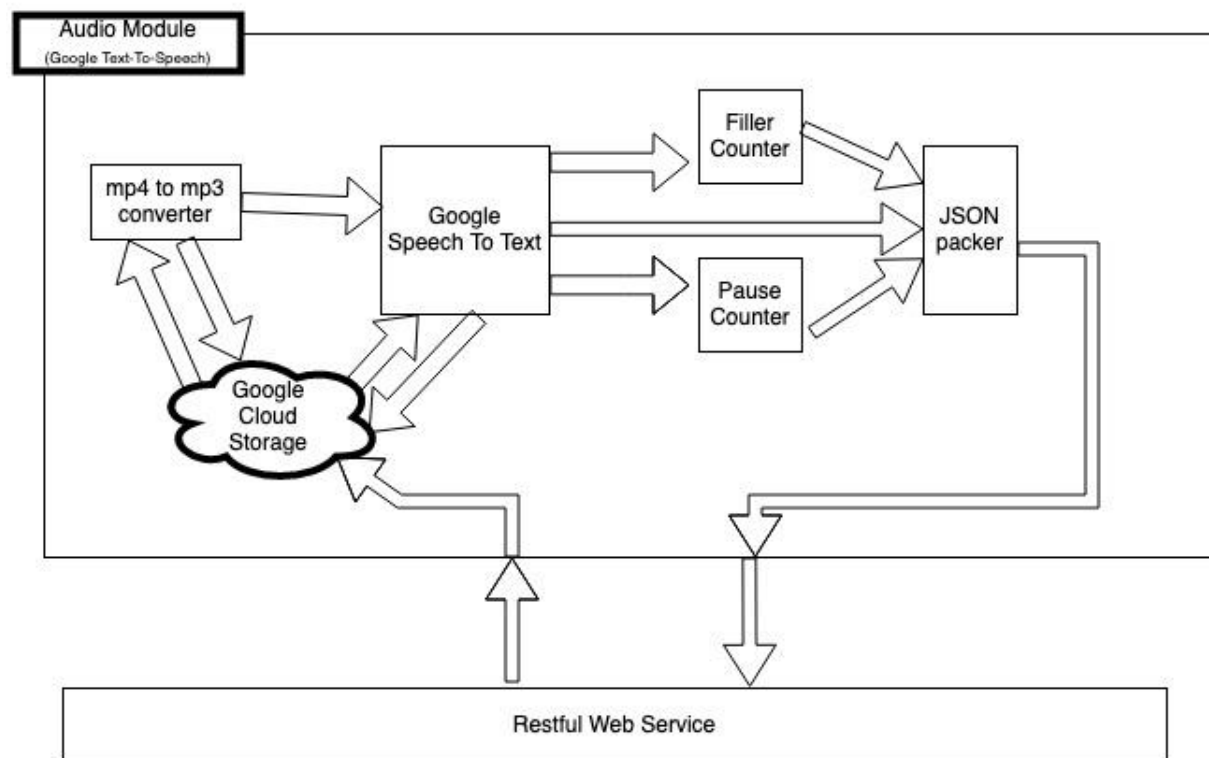
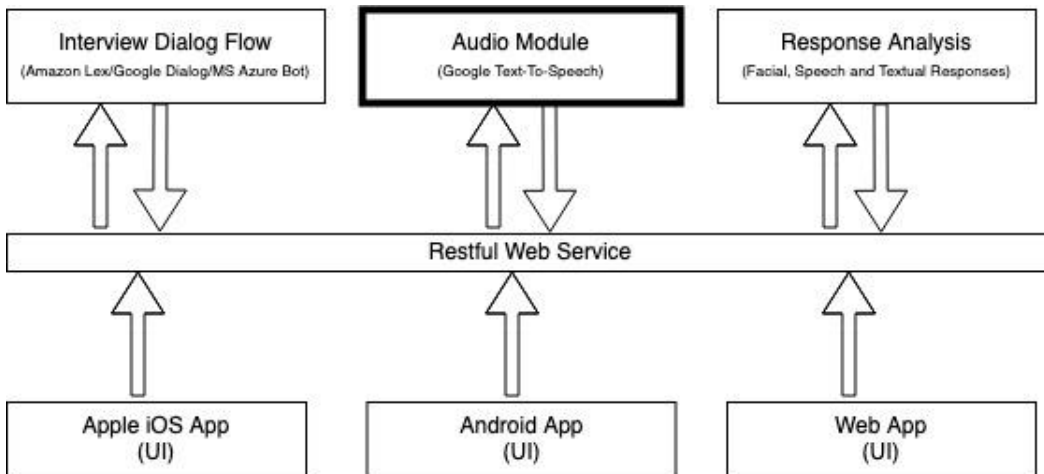
Database Design Guidelines

The section needs information from the WST and therefore assumptions were made in preparation for future enhancements and connectivity with the Web Services Module:

- Source file location should be made available via a shareable database
- Source file location can be made available via a shareable server.
- Source file location can be made available via cloud storage
- Source file format should be mp4
- Source file format can be mp3
- Output file location should be a shareable database
- Output file location can be a shareable server
- Output file location can be cloud storage
- Source file naming convention should be *<filename>.mp4*
- Source file naming convention can be *<filename>.mp3*
- Output file naming convention should be *<filename>.json*

Architectural Design Guidelines

Audio Module	Version: 2.0
Design Guidelines	Date: December 10, 2021C1
3_AUDIO_Technical_Design_Specification	



UML Stereotypes

No additional stereotypes needed.