

# TEST CASE SPECIFICATIONS

This document, Audio\_Test\_Case\_Specificaiton contains:

- Test Strategy/Approach
- Test Plan
- Use Cases
- Traceability Matrix
- Test Result Summary

All are used to deem the CS 4800 Software Engineering Audio Module sound and complete to be used as part of the Class Project: Mobile Interview Application.

## Revision History

Date	Version	Description	Author
11/21/21	draft	Document template established	Gershman, M.
11/22/21	1.0	Test cases related to file retrieval added	Gershman, M.
11/23/21	1.1	Test cases related to mp4 conversion added	Pedroza, A.
11/24/21	1.2	Test cases related to mp3 conversion added	Patel, N.
11/26/21	1.3	Test cases related to counting added	Garcia, D.
11/27/21	1.4	Test cases related to calculations added	Gershman, M.
11/28/21	1.5	Test cases related to file consolidation and delivery added	Pedroza, A.

## Test Strategy/Approach

The test strategy taken is that of unit testing focused on the functionality of the Audio Module as a unit to be integrated into the Mobile Interview Application.

## Test Plan

The test plan is to individually test and verify each intended use case which reflects the functionality of the Audio Module:

- 1.0 The module shall be able to access the file from an external public site.
- 1.1 The module shall accept video files in mp4 format.
- 1.2 The module shall notify the user should an mp4 file is not found.
- 1.3 The module shall notify the user of an mp4 file of size 0.
- 2.0 The module shall convert mp4 files into mp3 files.
- 2.1 The module shall notify the user of any errors resulting from converting the mp4 file into an mp3 file.
- 3.0 The module shall convert mp3 files into text files.
- 3.1. The module shall convert mp3 file into a json file.
- 3.2 The module shall notify the user of any errors encountered while converting the mp3 into a json file.
- 3.3 The module shall notify the user of any errors encountered while converting the mp3 file into text.
- 4.0 The module shall count how many filler words are contained with the text file.
- 5.0 The module shall generate a confidence number based on the audio's mp3 pitch.
- 6.0 The module shall deliver a text file containing the transcription and the confidence number.
- 6.1 The module shall notify the user of any errors occurring with the delivery of the text file.

## Use Cases

- UC 1 : retrieve audio file
- UC 2 : convert mp4 to mp3
- UC 3 : convert mp3 to text
- UC 4 : convert mp3 to json
- UC 5 : search through text file
- UC 6 : count pauses
- UC 7 : count filler words
- UC 8 : calculate pitch of voice
- UC 9 : return total score
- UC 10 : return file to speech team

## Traceability Matrix

[illegible]

## Test Cases

TEST CASES BEGIN ON THE NEXT PAGE.

<b>Test Case Name</b>			
obtain audio file			
<b>Test Case ID</b> <b>Component</b>	1.0	<b>Created By</b>	Maribel
		<b>Creation Date</b>	11/22/21
		<b>Modified By</b>	Maribel
		<b>Modified Date</b>	12/03/21
<b>Requirements Covered</b>			
Access video file			
<b>Purpose of test</b>			
Verify the ability to retrieve video files for from an external public site			
<b>Input Test Data</b>			
Location of file and filename			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy the mp4 file to our CS4800 Google Bucket		
4			
5			
<b>Overall Outcome</b>			
<b>Ability to retrieve the audio file from the web services team.</b>			

Test Case Name
obtain mp4 file

Test Case ID Component	1.1	Created By	Maribel
		Creation Date	11/22/21
		Modified By	Maribel
		Modified Date	12/03/21

Requirements Covered
Accept video file in mp4 format

Purpose of test
Verify the ability to accept a mp4 format file

Input Test Data
Location of file and filename

Test Steps		
#	Description	Expected Outcome
1	Connect to the location of the file	
2	Find the mp4 file	
3	Copy the mp4 file to our CS4800 Google Bucket	
4		
5		

Overall Outcome
Ability to accept mp4 file format

Test Case Name	
File not found	

Test Case ID Component	1.2	Created By	Maribel
		Creation Date	11/22/21
		Modified By	Maribel
		Modified Date	12/03/21

Requirements Covered
Notify user should a mp4 file not be found

Purpose of test
Verify user notification of file not found

Input Test Data
Location of file and a filename not at said location

Test Steps		
#	Description	Expected Outcome
1	Connect to the location of the file	
2	Find the mp4 file	ERROR message
3		
4		
5		

Overall Outcome
Error message sent to user of file not found

Test Case Name
File size 0

Test Case ID Component	1.3	Created By	Maribel
		Creation Date	11/22/21
		Modified By	Maribel
		Modified Date	12/03/21

Requirements Covered
Notify user should a mp4 file is empty

Purpose of test
If mp4 file is empty, transcription not possible.

Input Test Data
Location of file and a filename

Test Steps		
#	Description	Expected Outcome
1	Connect to the location of the file	
2	Find the mp4 file	
3	Check size of mp4 file	File size 0
4		
5		

Overall Outcome
Error message sent to user of file is empty



Test Case Name	
Convert mp4 to mp3	

Test Case ID Component	2.0	Created By Creation Date Modified By Modified Date	Abrahan Pedroza
			11/23/21

Requirements Covered
Converting mp4 to mp3

Purpose of test
Verify the ability to convert a video mp4 file into an audio only mp3 file

Input Test Data
Location of file and a filename

Test Steps		
#	Description	Expected Outcome
1	Connect to the location of the file	
2	Find the mp4 file	
3	Copy file to Google Bucket CS4800	
4	Convert mp4 file in to a mp3 file	mp3 file
5		

Overall Outcome
Ability to convert mp4 files into mp3 files

<b>Test Case Name</b>			
Errors converting mp4 to mp3			
<b>Test Case ID</b> <b>Component</b>	2.1	<b>Created By</b> <b>Creation Date</b> <b>Modified By</b> <b>Modified Date</b>	Abrahan Pedroza
			11/23/21
<b>Requirements Covered</b>			
Converting mp4 to mp3			
<b>Purpose of test</b>			
Verify the user is notified of errors related to converting a video mp4 file into an audio only mp3 file			
<b>Input Test Data</b>			
Location of file and a filename			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy file to Google Bucket CS4800		
4	Convert mp4 file in to a mp3 file	mp3 file	
5			
<b>Overall Outcome</b>			
<b>Ability to notify the user of errors related to mp4 files being converted into mp3 files.</b>			

Test Case Name	
Convert mp3 to text	

Test Case ID Component	3.0	Created By Creation Date Modified By Modified Date	Nachiket Patel
			11/24/21

Requirements Covered
Converting mp3 file into a text file

Purpose of test
Verify the mp3 file can be converted into a text file.

Input Test Data
Location of file and a filename

Test Steps		
#	Description	Expected Outcome
1	Connect to the location of the file	
2	Find the mp4 file	
3	Copy file to Google Bucket CS4800	
4	Convert mp4 file in to a mp3 file	mp3 file
5	Convert mp3 file in to a text file	Text file

Overall Outcome
Ability to convert a mp3 file into a text file.

Test Case Name	
Convert mp3 file into a json file	

Test Case ID Component	3.1	Created By Creation Date Modified By Modified Date	Nachiket Patel
			11/24/21

Requirements Covered
Converting mp3 file into a json file

Purpose of test
Verify the mp3 file can be converted into a json file

Input Test Data
Location of file and a filename

Test Steps		
#	Description	Expected Outcome
1	Connect to the location of the file	
2	Find the mp4 file	
3	Copy file to Google Bucket CS4800	
4	Convert mp4 file in to a mp3 file	mp3 file
5	Convert mp3 file in to a text file	Text file
6	Convert mp3 file in to a json file	Json file

Overall Outcome
Ability to convert a mp3 file into a json file.

<b>Test Case Name</b>			
Error converting mp3 file into a json file			
<b>Test Case ID</b> <b>Component</b>	3.2	<b>Created By</b> <b>Creation Date</b> <b>Modified By</b> <b>Modified Date</b>	Nachiket Patel
			11/24/21
<b>Requirements Covered</b>			
User is notified of any errors encountered while converting the mp3 into a json file.			
<b>Purpose of test</b>			
Verify notification is sent to user of errors encountered while converting the mp3 file into a json file.			
<b>Input Test Data</b>			
Location of file, filename, file contains dead air and no human voice.			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy file to Google Bucket CS4800		
4	Convert mp4 file in to a mp3 file	mp3 file	
5	Convert mp3 file in to a json file	Error message sent to user	
6			
<b>Overall Outcome</b>			
User is notified of error generated while converting mp3 into a json file.			

<b>Test Case Name</b>			
Error converting mp3 file into a text file			
<b>Test Case ID</b> <b>Component</b>	3.3	<b>Created By</b> <b>Creation Date</b> <b>Modified By</b> <b>Modified Date</b>	Nachiket Patel
			11/24/21
<b>Requirements Covered</b>			
User is notified of any errors encountered while converting the mp3 into a text file.			
<b>Purpose of test</b>			
Verify notification is sent to user of errors encountered while converting the mp3 file into a text file.			
<b>Input Test Data</b>			
Location of file, filename, file contains dead air and no human voice.			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy file to Google Bucket CS4800		
4	Convert mp4 file in to a mp3 file	mp3 file	
5	Convert mp3 file in to a text file	Error message sent to user	
<b>Overall Outcome</b>			
User is notified of error generated while converting mp3 into a text file.			

<b>Test Case Name</b>			
Filler word counter			
<b>Test Case ID</b> <b>Component</b>	4.0	<b>Created By</b> <b>Creation Date</b> <b>Modified By</b> <b>Modified Date</b>	Diego Garcia
			11/26/21
<b>Requirements Covered</b>			
Counts the number of filler words in the text file			
<b>Purpose of test</b>			
Verify accurate filler word count in text file			
<b>Input Test Data</b>			
Location of file, filename, list of filler words, number of filler words in file			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy file to Google Bucket CS4800		
4	Convert mp4 file in to a mp3 file	mp3 file	
5	Convert mp3 file in to a text file	Text file	
6	Count filler words in the text file	An integer greater than or equal to 0.	
<b>Overall Outcome</b>			
Number of filler words used is counted and accurate.			

<b>Test Case Name</b>			
Generate confidence number			
<b>Test Case ID</b> <b>Component</b>	5.0	<b>Created By</b>	Maribel Gershman
		<b>Creation Date</b>	11/27/21
		<b>Modified By</b>	
		<b>Modified Date</b>	
<b>Requirements Covered</b>			
Generate a confidence number based on the audio mp3's pitch			
<b>Purpose of test</b>			
Verify a confidence number is generated			
<b>Input Test Data</b>			
Location of file, filename, filler name list and it's location,			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy file to Google Bucket CS4800		
4	Convert mp4 file in to a mp3 file	mp3 file	
5	Convert mp3 file in to a text file	Text file	
6	Count filler words in the text file	An integer greater than or equal to 0.	
7	Calculate a confidence number	An integer from 0 to 10 inclusive	
<b>Overall Outcome</b>			
<b>A confidence number from 0 to 10 inclusive.</b>			



<b>Test Case Name</b>			
Combine transcription and confidence number			
<b>Test Case ID</b> <b>Component</b>	6.0	<b>Created By</b>	Abrahan Pedroza
		<b>Creation Date</b>	11/28/21
		<b>Modified By</b>	
		<b>Modified Date</b>	
<b>Requirements Covered</b>			
Generate a file containing the audio transcription and the associated confidence number			
<b>Purpose of test</b>			
Verify the type and contents of the file to be delivered			
<b>Input Test Data</b>			
Location of file, filename, filler name list and it's location.			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy file to Google Bucket CS4800		
4	Convert mp4 file in to a mp3 file	mp3 file	
5	Convert mp3 file in to a text file	Text file	
6	Count filler words in the text file	An integer greater than or equal to 0.	
7	Calculate a confidence number	An integer from 0 to 10 inclusive	
8	Combine confidence number and transcription	Text file	
<b>Overall Outcome</b>			
<b>Deliverable text file with transcription and confidence number enclosed.</b>			

<b>Test Case Name</b>			
User notification of combined transcription and confidence number related errors			
<b>Test Case ID</b> <b>Component</b>	6.1	<b>Created By</b>	Abrahan Pedroza
		<b>Creation Date</b>	11/28/21
		<b>Modified By</b>	
		<b>Modified Date</b>	
<b>Requirements Covered</b>			
Notify the user of any errors occurring with the delivery of the text file.			
<b>Purpose of test</b>			
Verify the user notification of errors			
<b>Input Test Data</b>			
Location of file, filename, filler name list and it's location, a destination filename which already exists.			
<b>Test Steps</b>			
<b>#</b>	<b>Description</b>	<b>Expected Outcome</b>	
1	Connect to the location of the file		
2	Find the mp4 file		
3	Copy file to Google Bucket CS4800		
4	Convert mp4 file in to a mp3 file	mp3 file	
5	Convert mp3 file in to a text file	Text file	
6	Count filler words in the text file	An integer greater than or equal to 0.	
7	Calculate a confidence number	An integer from 0 to 10 inclusive	
8	Combine confidence number and transcription	Error message: file already exists	
<b>Overall Outcome</b>			
Verify errors related to deliverable text file are sent to the user.			

# Test Results Summary

Test Result Summary								
Total Testcases	Pass	Fail	Not Tested	Closed	Fixed	Open-Critical	Open-Major	Open-Minor
14	8	0	6	0	0	1	1	4