SUM-UP User Manual

Project Title	SUM-UP
Module	CA400 - Final Year Project
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Installation Guide

In order to install our web application you can go to the following link to find the installation guide.

Link:
https://gitlab.computing.dcu.ie/asifm2/2023-ca400-asifm2-hossaia5/-/blob/master/README.md

OR

Follow the Instructions Below:

Step 1: Visit Repo

- Go to the GitLab repository:
  https://gitlab.computing.dcu.ie/asifm2/2023-ca400-asifm2-hossaia5/-/tree/master/src
- Click the Clone button and use the clone with HTTPS

Step 2: Clone

- Clone the repository to your local machine using the following command:
  Git clone
  https://gitlab.computing.dcu.ie/asifm2/2023-ca400-asifm2-hossaia5.git

Step 3: Build Frontend

- You will need to build frontend by using the command (within the frontend directory)

- yarn install
  yarn build

Step 4: Build Docker

- You will need to build docker using the following command (must exit frontend directory)

- docker-compose build
  docker-compose up -d

Step 5: Access the Application

- You can view the app running on the following link

- **localhost:5005**

Abstract

SUM-UP, our initiative, focuses on an extractive summary of spoken audio, with the ability to use Spotify's podcast collection. Our project summaries might be developed in response to user requests. Summaries assist us in discovering our areas of interest and provide a brief context for the story.

We want to build a prototype online application that can playback recorded audio of summary information or, if the user wishes, they may. We will use summarization techniques for datasets given by Spotify and transform them into audio or text depending on the user's preferences. This will be accomplished using machine learning methods. An accounts system that keeps track of user summaries will be implemented further.

This program is great for folks who enjoy podcasts or other audio formats but do not have the time to listen to many hour-long episodes. They may input the audio they want and set the summarisation parameters to get an accurate yet concise description.

App system

Layout/System Architecture:

The layout of our web application is minimalistic yet informative. We have kept in mind not everyone may be familiar with a web application such as this and to make sure all users new or old could utilise it.

Once the users finish the installation guide, and they have the web app up and running on a web browser, they will be met with a authentication page. This will allow them to either sign-up or sign in for a new account.

After they have logged in successfully to their account, they will bring to the main page will allow them to use our summarizer. The page has clear labelling and instructions on how to go navigate about. A user can choose an audio file and press generate text to convert the audio file into text. The time taken to generate the text would depend on the length/size of the audio file.

Once the files are converted into text, the user can use our own custom summarizer to summarize the converted text into a shorter more informed piece of text. The summarized text only contains that is relevant to informing the user of the content of the original text.

Now that the summary is done, the user is given the option to either download the summary text as a text file or download it as an audio file. We have also incorporated a playback feature that allows the user to listen to the summary audio without

downloading it. The user would have to press the play button to start listening to the summary audio.

Lastly, the user can save the contents of their summary by pressing the **Save** button. This will save the contents on the history page which the user can access by clicking on the **History** button. Here the user can view past summaries that have been saved and access them directly.

Key Features:

Our summarizer application provides the necessary functions and options but as well as that we have incorporated a number of features that are unique to our application. Hence setting us apart from our competitors and attracting a larger audience. We felt many of these features were needed in order to complete the chosen topic and frankly, these are features that the users wanted to see web summarizers include. Below are some of these features:

Our unique Audio-to-Text converter: Unlike other audio-to-text converters we are able to skim through background noise and white noise in order to only select spoken audio that is relevant to the audio file for conversion.

Custom Built Summarizer: Instead of relying on API's to perform our summaries we have purpose-built a summarizer that uses NLP'S and looks for relevant words that occur often in every few sentences. This way we are able to highlight the material that is important and use it for our end summary.

Exporting features: We have incorporated various ways for the user to export the given summary material. The user can directly copy/paste the material from the summary box. The application also allows the user to download the summary content as a text file as well as an audio file with the press of a button.

Audio Playback Feature: The summarizer Allows the user to playback the summary content in order for the user to listen to the summary material. This is important for the user as it allows them to listen to summary content without having to download it on their machine.

History Feature: This feature of our Web application allows the user to click a button and be presented with all the past summaries that the user have performed and saved. The saved summaries are presented in order and the user can click on it to view the contents of the past summaries.