TEST PLAN FOR

YOUTUBE TRANSCRIPT SUMMARIZER (PCS24-34)

Change Log

Version	Change Date	By	Description
version number	Date of Change	Name of person who made changes	Description of the changes made
1.0	30/10/2023	Harsh Bhardwaj	Intital Draft

1 Introduction

The primary objective of the testing strategy for the YouTube Transcript Summarizer project is to ensure the accuracy and reliability of the summarization process. The summarizer should generate concise and meaningful summaries from YouTube video transcripts.

1.1 Scope

1.1.1 In Scope

1. **YouTube Transcript Retrieval**: The core functionality of retrieving the transcript of a YouTube video is in scope. This includes parsing the video URL, fetching the transcript, and preparing it for summarization.
2. **Transcript Summarization**: Developing the algorithm or pipeline for summarizing the transcript is within scope. This involves generating concise and meaningful summaries from the transcript content.
3. **User Interface**: If your project includes a user interface for users to input YouTube video URLs and view summaries, the design, and development of the user interface are part of the project's scope.

1.2 Quality Objective

The overall objective of the YouTube Transcript Summarizer project, excluding the testing phase, is to develop and deploy a functional and user-friendly web application that efficiently summarizes YouTube video transcripts. The core goals of the project, which will be pursued primarily during the development phase, include:

1. **Transcript Summarization**: To implement an effective summarization algorithm that can generate concise and coherent summaries from the content of YouTube video transcripts.
2. **User Accessibility**: To design and deploy a user interface that allows users to easily input YouTube video URLs and receive summarization results, making the application accessible and user-friendly.
3. **Scalability**: To design the application in a way that it can scale and handle a potentially high volume of users and summarization requests.

1.3 Roles and Responsibilities

Detail description of the Roles and responsibilities of different team members like

- QA Analyst – Harsh Bhardwaj
- Test Manager – Prof. Abhishek Goyal

- Configuration Manager – Prof. Akansha
- Developers – Harsh Bhardwaj, Manish Tiwari, Ishita Goswami
- Installation Team - Harsh Bhardwaj, Manish Tiwari, Ishita Goswami

2 Test Methodology

2.1 Overview

Agile Testing: Testing is integrated into the Agile development process, with a focus on continuous testing and quick feedback.

2.2 Test Levels

1. **Unit Testing:**
    - **Scope: Test individual components of your application, such as functions and methods responsible for tasks like retrieving YouTube transcripts or generating summaries.**
    - **Objective: Ensure that these components work correctly in isolation, detecting and fixing any bugs at an early stage.**
2. **Integration Testing:**
    - **Scope: Evaluate the interaction between different parts of your application, including the process of fetching transcripts from YouTube and the summarization algorithm.**
    - **Objective: Verify that these components work together seamlessly and that data flows correctly between them.**
3. **System Testing:**
    - **Scope: Test the entire application, including the user interface (if applicable), to ensure that the complete summarization process, from URL input to summary output, functions as intended.**
    - **Objective: Confirm that the application meets the specified requirements, is user-friendly, and provides accurate summaries.**

2.3 Test Completeness

Here you define the criterias that will deem your testing complete.
For instance, a few criteria to check Test Completeness would be

- 100% test coverage
- All Manual Test cases executed
- All open bugs are fixed or will be fixed in next release

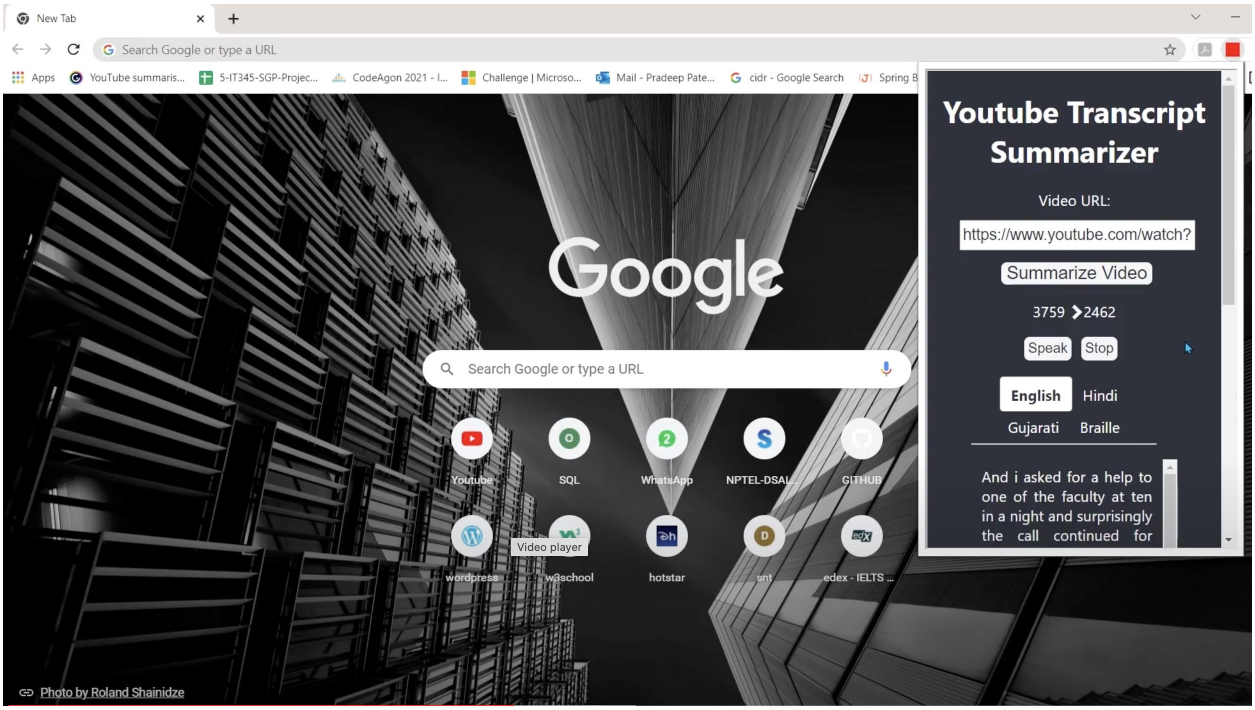
- Automated regression tests have been executed, and previously tested features still work as expected after updates or changes.

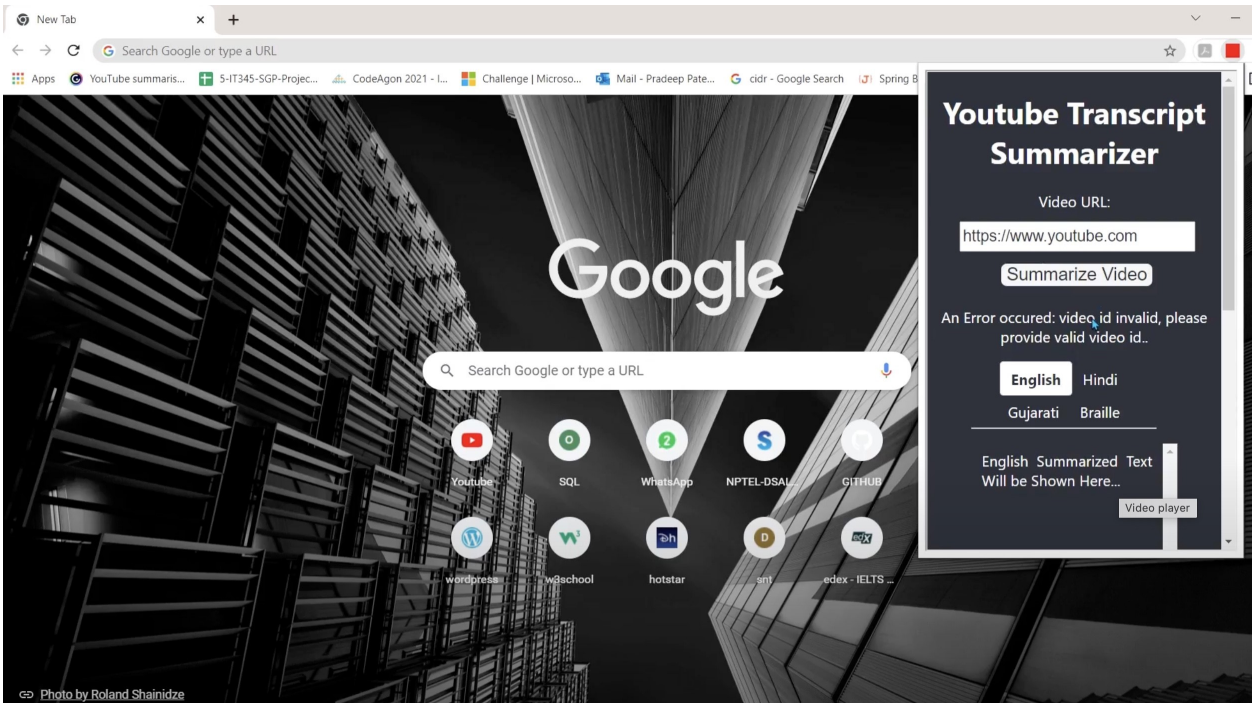
3 Test Deliverables

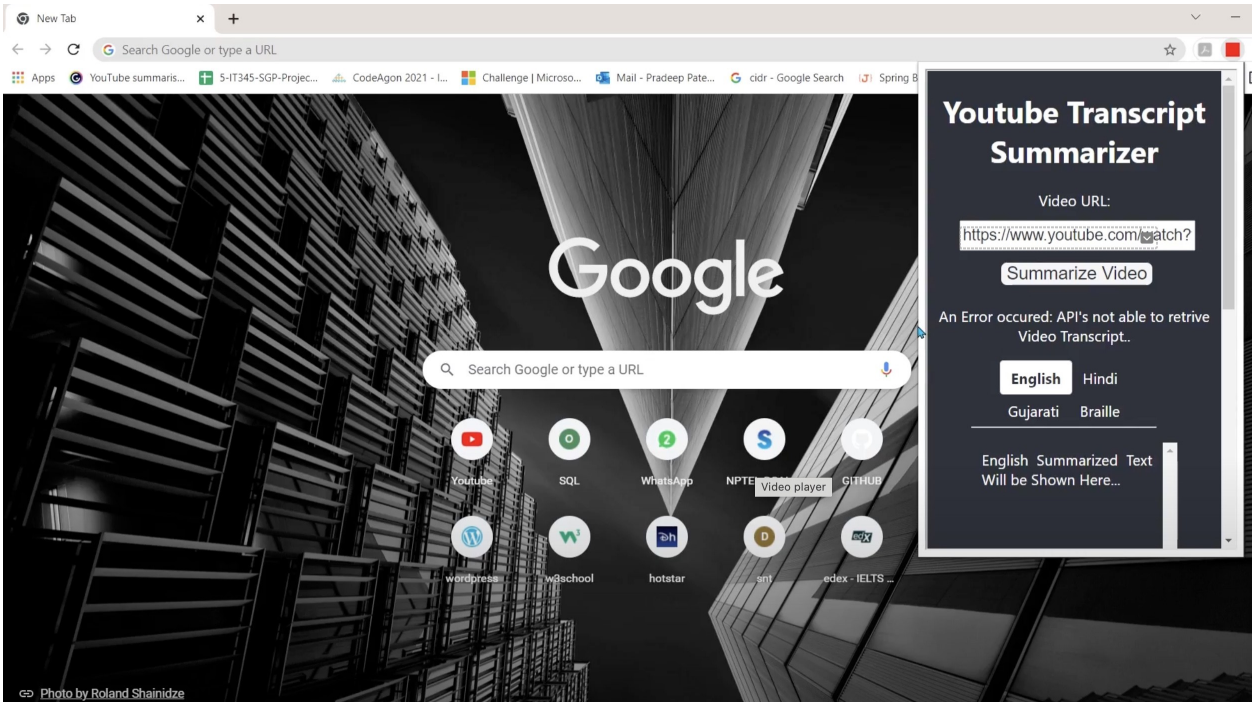
1. Test a valid YouTube video URL with an actual video ID:
    - Input: 'https://www.youtube.com/watch?v=VIDEO_ID'
    - Expected output: A successful response with a summary.
2. Test a valid YouTube video URL with a non-existent video ID:
    - Input: 'https://www.youtube.com/watch?v=INVALID_VIDEO_ID'
    - Expected output: An error response (404 or similar) indicating that the video does not exist.
3. Test an empty YouTube video URL:
    - Input: 'https://www.youtube.com/watch?v=' (no video ID)
    - Expected output: An error response (400 or similar) indicating a bad request.
4. Test a YouTube video URL without 'https://www.youtube.com/watch?v=' format:
    - Input: 'https://youtube.com/VIDEO_ID'
    - Expected output: An error response (400 or similar) indicating a bad request due to an incorrect URL format.
5. Test a long transcript:
    - Input: A long transcript with more than 1000 characters.
    - Expected output: A successful response with a summary that accurately represents the content of the long transcript.

Test Case	Test Data	Expected Result	Actual Result	Pass/Fail
1.	Valid URL	Successful response	Successful response	Pass
2.	Empty URL	An error message	An error message	Pass
3.	Long Transcript	Successful response	Successful response	Pass

Test Output


New Tab
Search Google or type a URL
Youtube Transcript Summarizer
Video URL:
https://www.youtube.com/watch?
Summarize Video
3759 >2462
Speak
Stop
English
Hindi
Gujarati
Braille
And i asked for a help to one of the faculty at ten in a night and surprisingly the call continued for
Google
Search Google or type a URL
Youtube
SQL
WhatsApp
NPTEL-DSAL...
GITHUB
wordpress
w3school
hotstar
snt
edex - IELTS ...
Video player
Photo by Roland Shainidze


New Tab
Search Google or type a URL
Youtube Transcript Summarizer
Video URL:
https://www.youtube.com
Summarize Video
An Error occured: video id invalid, please provide valid video id..
English
Hindi
Gujarati
Braille
English Summarized Text Will be Shown Here...
Video player
Google
Search Google or type a URL
Youtube
SQL
WhatsApp
NPTEL-DSAL...
GITHUB
wordpress
w3school
hotstar
snt
edex - IELTS ...
Photo by Roland Shainidze



4 Resource & Environment Needs

4.1 Test Environment

The following **software is** required in addition to client-specific software.

- Windows 10 and above
- Visual Studio Code
- RAM – 4GB and above

5 Terms/Acronyms

TERM/ACRONYM	DEFINITION
API	Application Program Interface

TERM/ACRONYM	DEFINITION
AUT	Application Under Test

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