# Wikipedia Article Summary Generator

## Project Title

Wikipedia Article Summary Generator

## Project Details

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Submitted To: GKB Labs

Task: Task 1

Development Environment: Visual Studio Code (VS Code)

## Project Description

The Wikipedia Article Summary Generator is a Python-based application designed to help users retrieve concise, readable summaries from Wikipedia. By simply entering a topic, the tool fetches a clean summary, formats it into bullet points, and provides options to save the content or listen to it via text-to-speech. This enhances accessibility and improves the user’s ability to consume information quickly.

## Problem Statement

In today’s information-driven world, Wikipedia is a go-to source for knowledge. However, its articles can often be long and complex, making key points difficult to extract. Moreover, users with visual impairments or learning challenges may find reading entire articles difficult.

There is a need for a lightweight, accessible solution that:

• Summarizes articles effectively

• Presents information clearly

• Supports voice-based reading for inclusive access

## Solution

This tool solves the above challenges by:

• Accepting a topic as input from the user

• Fetching a concise summary (default: 5 sentences) from Wikipedia

• Breaking the summary into formatted bullet points for clarity

• Allowing the user to:

– Save the summary to a .txt file

– Listen to the summary using text-to-speech (TTS)

## Tools and Technologies Used

• Language: Python

• IDE: Visual Studio Code

• Libraries:

– wikipedia: Fetch Wikipedia content

– textwrap: Format text into readable lines

– pyttsx3: Text-to-speech conversion

## Requirements

Install the necessary Python libraries via terminal:

pip install wikipedia

pip install pyttsx3

## Function Descriptions

1. get\_summary(topic, max\_sentences=5):

• Fetches and formats a topic summary from Wikipedia

• Parameters: topic (str), max\_sentences (int, default=5)

• Returns: Wrapped summary or prints error

• Handles: DisambiguationError, PageError, other exceptions

2. save\_summary\_to\_file(text, filename="summary.txt"):

• Saves the summary to a file

• Parameters: text (str), filename (str)

3. speak\_summary(text):

• Uses pyttsx3 to read the summary aloud

• Parameter: text (str)

## Script Execution Flow

• User is prompted to enter a topic

• The script fetches the Wikipedia summary

• Displays a formatted, bullet-point summary

• Asks if the summary should be saved to a file

• Asks if the summary should be read aloud

## Example Usage

Enter a Wikipedia topic: Python (programming language)

Summary Points:

1. Python is a high-level, interpreted, general-purpose programming language.

2. Its design philosophy emphasizes code readability.

3. Python is dynamically typed and garbage-collected.

...

Save summary to file? (y/n): y

Summary saved to summary.txt

Want to hear it aloud? (y/n): y

## Project Structure

Wikipedia\_Summary\_Generator/

├── main.py # Main Python script

├── summary.txt # Output file (optional)

└── README.md # Project documentation (optional)

## Future Enhancements

• Add a graphical user interface (GUI) using Tkinter or PyQt

• Enable export to PDF format for sharing

• Add multilingual support (input + output)

• Integrate AI-powered custom summarization

• Display image, infobox, or additional media

• Suggest related topics based on search history

## Useful Links

• Wikipedia Library: https://pypi.org/project/wikipedia/

• pyttsx3 Library: https://pypi.org/project/pyttsx3/

• Visual Studio Code: https://code.visualstudio.com/

• GitHub Profile – Akshaya Bommakanti: https://github.com/akshaya-b01?tab=repositories