



The Superior University

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Department of Software Engineering - Superior University

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SOLO PROJECT	
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Table of Content:

Overview:	3
Folder Structure:	4
Detailed Functionality:	5
a. Transcription: transcribe_audio().....	5
b. Story Generation: generate_story_text().....	5
c. Image Generation: generate_image().....	5
d. Title Extraction: extract_title().....	6
How it Works – Flow	6
ScreenShots:	7

Overview:

This application allows users to either **speak or type prompts** to generate AI-based children's stories. It uses:

- **Whisper** for audio transcription,
- **Groq's LLaMA 3 model** for story generation,
- **Stability AI** for generating illustrative images,
- **Flask** as the web framework for managing routes and rendering HTML templates.

The final result is a **downloadable storybook** with an optional AI-generated image.

Key Technologies Used:

<u><i>Technology</i></u>	<u><i>Purpose / Role</i></u>
<u>Flask</u>	Web framework to handle routing, file uploads, and rendering HTML templates.

<u>Whisper</u>	OpenAI's speech-to-text model for transcribing voice input into readable text.
<u>Groq API (LLaMA 3)</u>	Generates the children's story using LLaMA 3-based language models via chat API.
<u>Stability AI</u>	Generates images based on the story prompt using Stable Diffusion API.
<u>uuid</u>	Creates unique filenames for uploads and story outputs.
<u>os / os.path</u>	Manages directories for uploaded voice files and generated books/images.
<u>dotenv (.env)</u>	Securely loads API keys without exposing them in source code.
<u>HTML & CSS</u>	Template language used in Flask to render dynamic content on web pages.

Folder Structure:

- requirements.txt
- app.py

- Templates
 - html files
 - static
 - css file
 - saved book
-

Detailed Functionality:

a. Transcription: `transcribe_audio()`

- Uses whisper's base model.
- Converts uploaded voice files into text prompts.
- Returns the transcribed text used as a prompt for story generation.

b. Story Generation: `generate_story_text()`

- Sends the prompt (from voice or form) to the **Groq API**.
- Uses **LLaMA 3 (8B)** model to return a coherent, creative children's story.

c. Image Generation: `generate_image()`

- Calls **Stability AI**'s v2beta endpoint.

- Submits the same prompt used for the story.
- Returns a .png image generated by AI and saves it in the books/ folder.

d. Title Extraction: `extract_title()`


- Extracts a clean, readable title from the first line of the story.
 - Used to name the story .txt file and keep file names organized.
-

How it Works – Flow

1. User provides input: Either voice or form (hero, villain, nature, side characters).
2. Voice input (if given):
 - Audio file is uploaded and transcribed using whisper.
 - Transcription becomes the prompt.
3. Manual input (if voice not given):
 - Form values are combined to build a structured prompt.
4. Prompt is sent to Groq API to generate the story.
5. The story is saved to a .txt file.
6. Prompt is sent to Stability AI to generate an illustration.

7. The book and image are displayed in book.html.
 8. Users can view or download saved stories via /books/view.
-

ScreenShots:

 **Echo Pen Story Creator**

Hero Name:

Villain Name:

Nature of Story:

Adventure


Side Characters:


Upload Voice File (optional):

Choose file

No file chosen

Generate Story

 [View Saved Books](#)

 **Echo Pen Story Creator**

Hero Name:

Villain Name:

Nature of Story:

Adventure


Side Characters:

Upload Voice File (optional):

Choose file

No file chosen

Generate Story

 [View Saved Books](#)

Story

"The Mysterious Lost Treasure of Hogwarts"

It was a dark and stormy night at Hogwarts School of Witchcraft and Wizardry. Harry Potter, the brave and daring young wizard, was fast asleep in his bed when he was suddenly awoken by a faint whisper in his ear. "Harry, come quickly! A treasure has gone missing!" It was none other than his best friend, Ron Weasley, standing in the doorway of his dormitory.

Harry quickly dressed and followed Ron to the school's Great Hall, where Professor Dumbledore was pacing back and forth, looking worried. "Ah, Harry, I'm glad you're here. A valuable treasure, passed down through generations of Hogwarts students, has mysteriously disappeared. I fear the culprit may be none other than Tom Riddle, the infamous Dark Lord."

Harry's determination to solve the mystery and retrieve the treasure was immediately ignited. He set off with Ron, their loyal friend and loyal companion. Soon, a scary little owl began their quest.

Illustration



and Ron summoned a fierce blast of wind to blow away Voldemort's protective shield. Snap, sensing the danger, swooped down, flapping her wings fiercely, distracting the Dark Lord long enough for Harry and Ron to retrieve the treasure and make their escape.

As they soared back to the Great Hall, Harry gazed proudly at the treasure in his arms. "We did it, Ron! The treasure is safe!" Ron grinned, equally triumphant. "Snap and I are proud of you, Harry. You're an amazing hero!"

Professor Dumbledore, awaiting their return, beamed with pride. "Well done, Harry and Ron! Your bravery and quick thinking have saved the treasure and foiled the Dark Lord's plan once again. You have proven yourselves true Gryffindors."

As the storm outside subsided, Harry smiled, knowing that the adventure had only just begun. With Snap by his side, he would always be ready to conquer the shadows and defend Hogwarts against the forces of darkness.

[Home](#)[View Books](#)

Once_upon_a_time__We_ve_all_heard_the_saying_mon.txt

[Download](#)

__The_Quest_for_the_Golden_Scepter__.txt

[Download](#)

Once_upon_a_time_Write_a_children_s_story_with_he.txt

[Download](#)

__The_Mysterious_Lost_Treasure_of_Hogwarts_.txt

[Download](#)

__The_Quest_for_the_Golden_Wand__.txt

[Download](#)