1. **Python based Mini Project –**

**News Summarizer**

This program combines the capabilities of news summarization and translation to provide users with concise and translated summaries of news articles. Leveraging the newspaper library for article extraction and summarization, and the googletrans library for translation, the program offers a simple and user-friendly interface. Users input a news article URL, and the program retrieves, summarizes, and translates the content. The graphical user interface (GUI) built with tkinter facilitates a seamless user experience, displaying both the original and translated summaries for easy comprehension. Through this integration of technologies, the program aims to enhance accessibility to news content across different languages.

**Code-**

**import tkinter as tk**

**from newspaper import Article, article**

**from googletrans import Translator**

**import webbrowser**

**def summarize():**

**url = urltext.get('1.0', "end").strip()**

**article=Article(url)**

**article.download()**

**article.parse()**

**article.nlp()**

**title.config(state='normal')**

**author.config(state='normal')**

**publishDate.config(state='normal')**

**summary.config(state='normal')**

**title.delete('1.0',"end")**

**title.insert('1.0',article.title)**

**author.delete('1.0', "end")**

**author.insert('1.0', article.authors)**

**publishDate.delete('1.0', "end")**

**publishDate.insert('1.0', article.publish\_date)**

**summary.delete('1.0', "end")**

**summary.insert('1.0', article.summary)**

**title.config(state='disabled')**

**author.config(state='disabled')**

**publishDate.config(state='disabled')**

**summary.config(state='disabled')**

**def increase():**

**url = urltext.get('1.0', "end").strip()**

**article = Article(url)**

**article.download()**

**article.parse()**

**article.nlp()**

**title.config(state='normal')**

**author.config(state='normal')**

**publishDate.config(state='normal')**

**summary.config(state='normal')**

**title.insert('1.0', article.title)**

**default\_summary = article.summary**

**desired\_length = 7**

**sentences = default\_summary.split('.')**

**custom\_summary = '.'.join(sentences[:desired\_length])**

**summary.insert('1.0', custom\_summary)**

**author.insert('1.0', article.authors)**

**publishDate.insert('1.0', article.publish\_date)**

**summary.config(state='disabled')**

**title.config(state='disabled')**

**author.config(state='disabled')**

**publishDate.config(state='disabled')**

**def translate():**

**url = urltext.get('1.0', "end").strip()**

**article = Article(url)**

**try:**

**article.download()**

**article.parse()**

**article.nlp()**

**# language=language\_var.get()**

**default\_summary = article.summary**

**translator = Translator()**

**output=translator.translate(default\_summary,dest='hi').text**

**tr.config(state='normal')**

**tr.delete('1.0',"end")**

**tr.insert('1.0',output)**

**except Exception as e:**

**tr.config(state='normal')**

**tr.delete('1.0',"end")**

**tr.insert('1.0',f"Error:{str(e)}")**

**finally:**

**tr.config(state='disabled')**

**def open\_link():**

**url = urltext.get('1.0',"end").strip()**

**webbrowser.open(url)**

**def more\_articles():**

**new\_window=tk.Toplevel(root)**

**new\_window.title("More Articles...")**

**new\_window.geometry('500x600')**

**import requests**

**def display\_news():**

**area\_of\_interest = AreaofInterest.get("1.0", tk.END).strip()**

**start\_date = StartTime.get("1.0", tk.END).strip()**

**end\_date = EndDate.get("1.0", tk.END).strip()**

**api\_key = "e34b8aff60194e49b6a0818871b4889e"**

**if area\_of\_interest:**

**try:**

**get\_news(area\_of\_interest, start\_date, end\_date, api\_key)**

**except requests.exceptions.HTTPError as e:**

**LatestLinks.config(state='normal')**

**LatestLinks.delete("1.0", tk.END)**

**LatestLinks.insert(tk.END, f"HTTPError: {e}")**

**LatestLinks.config(state='disabled')**

**else:**

**LatestLinks.config(state='normal')**

**LatestLinks.delete("1.0", tk.END)**

**LatestLinks.insert(tk.END, "Please enter an area of interest.")**

**LatestLinks.config(state='disabled')**

**def get\_news(query, start\_date, end\_date, api\_key):**

**base\_url = "https://newsapi.org/v2/everything"**

**params = {**

**"q": query,**

**"from": start\_date,**

**"to": end\_date,**

**"sortBy": "publishedAt",**

**"apiKey": api\_key,**

**"language": "en"**

**}**

**response = requests.get(base\_url, params=params)**

**data = response.json()**

**if response.status\_code == 200:**

**articles = data.get("articles", [])**

**if not articles:**

**print("No articles found.")**

**return**

**counter = 0**

**LatestLinks.config(state='normal')**

**LatestLinks.delete("1.0", tk.END) # Clear previous links**

**for article in articles:**

**title = article.get('title', '')**

**link = article.get('url', '')**

**LatestLinks.insert(tk.END, f"Title: {title}\n")**

**LatestLinks.insert(tk.END, f"Article Link: {link}\n")**

**LatestLinks.insert(tk.END, "---------\n")**

**counter += 1**

**if counter == 10: # Break the loop after displaying 10 links**

**break**

**LatestLinks.config(state='disabled')**

**else:**

**print(f"Error: {response.status\_code}")**

**print(data)**

**LatestLinks.config(state='normal')**

**LatestLinks.delete("1.0", tk.END) # Clear previous links**

**LatestLinks.insert(tk.END, f"An error occurred while fetching news. Status Code: {response.status\_code}")**

**LatestLinks.config(state='disabled')**

**ALabel = tk.Label(new\_window, text="Area of Interest")**

**ALabel.pack()**

**AreaofInterest = tk.Text(new\_window, height=1, width=120)**

**AreaofInterest.config(bg='#C6C3C3')**

**AreaofInterest.pack()**

**BLabel = tk.Label(new\_window, text="Start Date")**

**BLabel.pack()**

**StartTime = tk.Text(new\_window, height=1, width=50)**

**StartTime.config(bg='#C6C3C3')**

**StartTime.pack()**

**CLabel = tk.Label(new\_window, text="End Date")**

**CLabel.pack()**

**EndDate = tk.Text(new\_window, height=1, width=50)**

**EndDate.config(bg='#C6C3C3')**

**EndDate.pack()**

**btn = tk.Button(new\_window, text="Display", command=display\_news)**

**btn.pack()**

**aLabel = tk.Label(new\_window, text="Latest Links")**

**aLabel.pack()**

**LatestLinks = tk.Text(new\_window, height=20, width=120)**

**LatestLinks.config(state='disabled', bg='#C6C3C3')**

**LatestLinks.pack()**

**root=tk.Tk()**

**root.title("\_\_News Summarizer\_\_")**

**root.geometry('1600x900')**

**uLabel=tk.Label(root,text="URL:")**

**uLabel.pack()**

**urltext=tk.Text(root,height=1,width=120)**

**urltext.pack()**

**tLabel=tk.Label(root,text="Title")**

**tLabel.pack()**

**title=tk.Text(root,height=1,width=120)**

**title.config(state='disabled',bg='#C6C3C3')**

**title.pack()**

**aLabel=tk.Label(root,text="Author")**

**aLabel.pack()**

**author=tk.Text(root,height=1,width=120)**

**author.config(state='disabled',bg='#C6C3C3')**

**author.pack()**

**pLabel=tk.Label(root,text="Publishing Date")**

**pLabel.pack()**

**publishDate=tk.Text(root,height=1,width=60)**

**publishDate.config(state='disabled',bg='#C6C3C3')**

**publishDate.pack()**

**sLabel=tk.Label(root,text="Summary")**

**sLabel.pack()**

**summary=tk.Text(root,height=10,width=120)**

**summary.config(state='disabled',bg='#C6C3C3')**

**summary.pack()**

**translabel=tk.Label(root,text="Translated Summary")**

**translabel.pack()**

**tr=tk.Text(root,height=10,width=120)**

**tr.config(state='disabled',bg='#C6C3C3')**

**tr.pack()**

**# languages = ['English','Hindi', 'French', 'German', 'Spanish']**

**# language\_var = tk.StringVar()**

**# language\_dropdown = tk.Combobox(window, textvariable=language\_var, values=languages)**

**# language\_dropdown.grid(row=0, column=0, padx=10, pady=10)**

**# language\_dropdown.current(0)**

**def reset():**

**urltext.delete('1.0',tk.END)**

**btn=tk.Button(root,text="Summarize",command=summarize)**

**btn.place(x=700,y=550)**

**btn1=tk.Button(root,text="Increase",command=increase)**

**btn1.place(x=780,y=550)**

**btn2=tk.Button(root,text="Reset",command=reset)**

**btn2.place(x=650,y=550)**

**btn3=tk.Button(root,text="Translate",command=translate)**

**btn3.place(x=850,y=550)**

**button = tk.Button(root, text="Original Article", command=open\_link)**

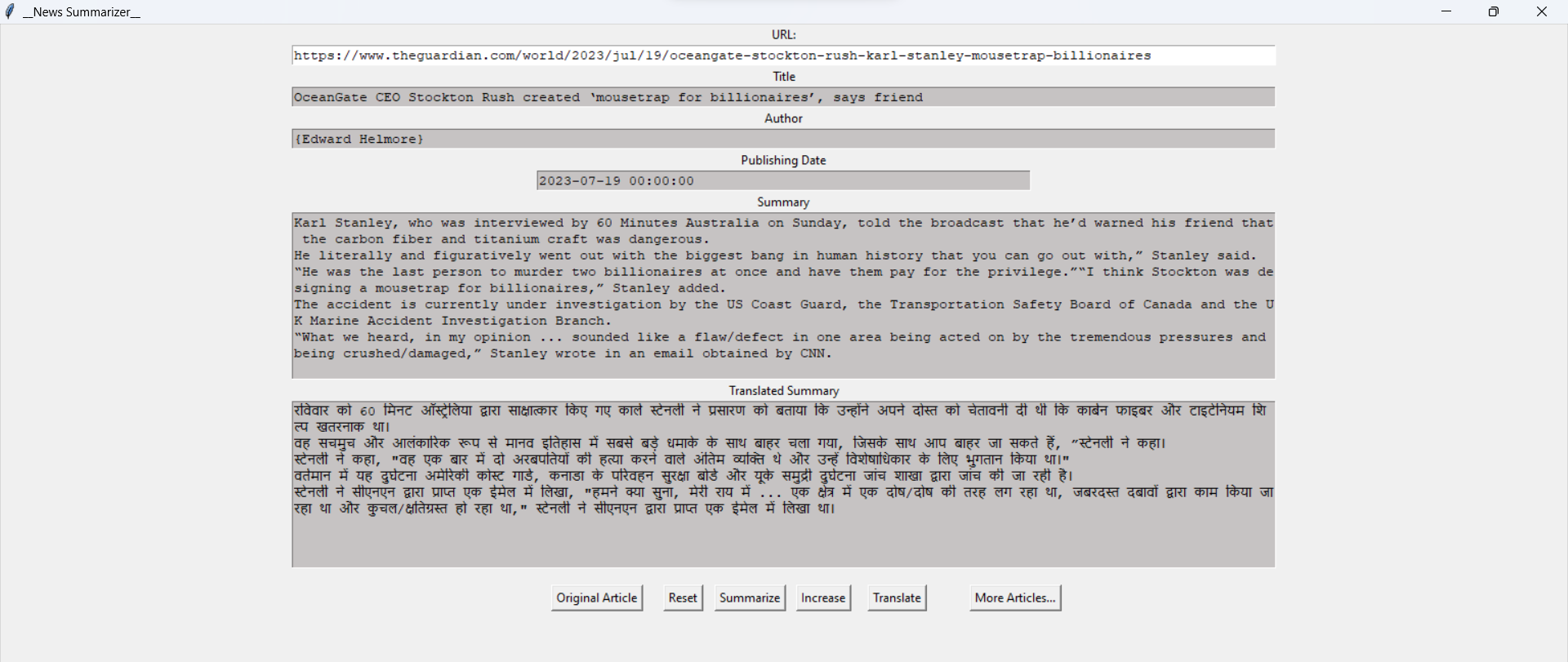
**button.place(x=540,y=550)**

**new\_window\_btn=tk.Button(root,text="More Articles...",command=more\_articles)**

**new\_window\_btn.place(x=950,y=550)**

**root.mainloop()**

**Output**

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