

P2 PROJECT

AI & Application Lab (14B17CI772)

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Project Title : Sentiment Analyzer

Description:

It is a analyzer tool whether the news stated in the article is positive , negative or neutral by using the natural language processing technique. It helps in finding the negative news which can harm the sentiments of the society or something related which can bring negativity in thoughts by reading those article.

Approach / Algorithm :

- Import the nltk,nlp,newspaper ,text blob libraries
- Creating the GUI for the tool to work effectively.
- Defining the three sentiments – positive , negative , neutral.
- Making the program to accept the url and give the desired output.
- Return the author name , title , sentiment of the article provided.

Code :

```
import tkinter as tk
import nltk
from textblob import TextBlob
from newspaper import Article

def summarize():

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

    article=Article(url)

    article.download()
    article.parse()

    article.nlp()

    title.config(state='normal')
    author.config(state='normal')
    publication.config(state='normal')
    summary.config(state='normal')
    sentiment.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)
```

```

publication.delete('1.0','end')
publication.insert('1.0',article.publish_date)

summary.delete('1.0','end')
summary.insert('1.0',article.summary)

analysis = TextBlob(article.text)
sentiment.delete('1.0','end')
sentiment.insert('1.0',f'Polarity:{analysis.polarity} Sentiment:{"positive" if analysis.polarity >
0 else "negative" if analysis.polarity < 0 else "neutral"}')

title.config(state='disabled')
author.config(state='disabled')
publication.config(state='disabled')
summary.config(state='disabled')
sentiment.config(state='disabled')

root = tk.Tk()
root.title("News Summarizer")
root.geometry('1200x600')

tlabel = tk.Label(root, text="Title")
tlabel.pack()

title = tk.Text(root , height=1, width=140)
title.config(state='disabled',bg='#dddddd')
title.pack()

alabel = tk.Label(root, text="Author")
alabel.pack()

author = tk.Text(root , height=1, width=140)
author.config(state='disabled',bg='#dddddd')
author.pack()

plabel = tk.Label(root, text="Publication Date")
plabel.pack()

publication = tk.Text(root , height=1, width=140)
publication.config(state='disabled',bg='#dddddd')
publication.pack()

slabel = tk.Label(root, text="Summary")
slabel.pack()

summary = tk.Text(root , height=20, width=140)
summary.config(state='disabled',bg='#dddddd')
summary.pack()

selabel=tk.Label(root,text="Sentiment Analysis")
selabel.pack()

sentiment = tk.Text(root , height=1, width=140)
sentiment.config(state='disabled',bg='#dddddd')
sentiment.pack()

```

```

ulabel=tk.Label(root,text="URL")
ulabel.pack()

utext = tk.Text(root , height=1, width=140)
utext.pack()

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

root.mainloop()

```

Test Procedures:

Run the above code a dialog box will appear paste the article url and click the submit button to get the desired result.

Results:

The commands works perfectly fine on the system hence the Analyzer analyzes the articles in the link.

For eg:

<https://edition.cnn.com/europe/live-news/russia-ukraine-war-news-05-31-22/index.html>

News Summarizer

Title
Live updates: Russia's war in Ukraine
Author
{Helen Regan} {Andrew Raine}
Publication Date
2022-05-31 04:00:26+00:00
Summary
Smoke rises in the city of Severodonetsk during heavy fightings between Ukrainian and Russian troops on Monday, May 30. (Aris Messinis/AFP/Getty Images)Part of the city of Severodonetsk in eastern Ukraine is "already controlled by the Russian army" and Russian troops are "gradually moving towards downtown Severodonetsk," Serhiy Hayday, head of Luhansk regional military administration said on Tuesday. But Hayday denied Russian reports that they have captured the whole city. "Unfortunately, part of Severodonetsk city is already controlled by the Russian army. Civilians trapped and supplies halted: Approximately 15,000 civilians remain in Severodonetsk city, Hayday said, and evacuation is now "suspended due to danger." They can only deliver humanitarian goods to nearby Lysychansk and Hirske to the south.
Polarity:-0.08619281045751637 Sentiment:negative
URL
https://edition.cnn.com/europe/live-news/russia-ukraine-war-news-05-31-22/index.html
Summarize

Conclusion / Remarks:

Evaluation / Marks: