

Principles of Deep Learning Lab

PDL Lab20: Web App Development for Sentiment Analysis using Flask and Heroku

In this lab activity, you will develop and deploy a simple web application for predicting the sentiment (such as positive, negative or neutral) of the given sentence using NLTK, Flask and Heroku. Here is a sample screen you can design.

Sentiment Analysis App

Type a sentence, click on the submit button and wait for your prediction.

This sentence is negative

Step-1:

- Download vader_lexicon from nltk.download
- Import SentimentIntensityAnalyzer class from vader
- Use polarity_scores() to predict polarity values

Sample code:

```
# sentiment.py
import nltk

text = "This is a very nice day"
nltk.download('vader_lexicon')
from nltk.sentiment.vader import SentimentIntensityAnalyzer
sid = SentimentIntensityAnalyzer()
score = ((sid.polarity_scores(str(text))))['compound']

if(score > 0):
    label = 'This sentence is positive'
elif(score == 0):
    label = 'This sentence is neutral'
else:
    label = 'This sentence is negative'

print(label)
```

Step-2:

Develop a simple web page using HTML and call the sentiment analysis code

Step-3:

Deploy your code in Heroku web server and call your App