Experiment -5

NLP TASKS

AIM:

To Perform part of speech tagging and develop info retrival system.

CODE:

Packages to install:

!pip install spacy

python -m spacy download en_core_web_sm

import spacy

nlp = spacy.load("en_core_web_sm")

text = "AI driven platforms personalize learning paths help student grasp faster"

doc = nlp(text)

for token in doc:

print(f"{token.text:15} -> {token.pos_}")

from sklearn.feature_extraction.text import vectoriz

documents = ["Intelligent tutoring system adapt to each other's learning style

"AI helps automate grading and administrative task in school"]

query = "How does AI support students in learnin

output:

AI → PROPN

- → PUNCT

driven → VERB

platforms → NOUN

Personalize → VERB

Learning → VERB

paths → NOUN

and → CONJ

Faster → ADV

. → PUNCT

Top relevant documents:

Score 0.16 → AI helps automate grading and administrative task in sch

Score 0.10 → Intelligent tutoring system adapt to each students learning sty

```
vectorizer = TfidfVectorizer()
tfidf_matrix = vectorizer.fit_transform(corpus)

ranked_docs = sorted(zip(similarities, documents))
print("\nTop relevant document:\n")
for score, doc in ranked_docs:
    print(f"score: {score:.2f} -> {doc}")
```

Result: parts of speech tagging and information retrieval system developed .. Successfully