

LAB DIGITAL ASSIGNMENT 2

SUBJECT: NATURAL LANGUAGE PROCESSING LAB (PMDS606P)

CLASS ID - VL2025260105170

Name: Soumyadeep Ganguly

Reg No: 24MDT0082

Course: M.Sc Data Science

Problem Statement:

Write a program to classify contexts involving the word 'must' according to the tag of the following word.

```
In [3]: import spacy  
nlp = spacy.load("en_core_web_sm")
```

```
In [7]: def must_usage(sentence):  
        doc = nlp(sentence)
```

```

for i, token in enumerate(doc):
    if token.text.lower() == "must" and i + 1 < len(doc):
        next_token = doc[i + 1]
        next_pos = next_token.pos_
        if next_token.lemma_ == "have" and i + 2 < len(doc) and doc[i+2].tag_ in ["VBN"]:
            return f"Sentence: '{sentence}'\n-> 'must' used as Modal Perfect (must have + past participle)."

```

Output

```

In [8]: sentences = [
    "You must go now.",
    "She must have finished her work.",
    "These are must things to carry."
]

for s in sentences:
    print(must_usage(s))

```

```

Sentence: 'You must go now.'
-> 'must' expresses Obligation (followed by a verb).
Sentence: 'She must have finished her work.'
-> 'must' used as Modal Perfect (must have + past participle).
Sentence: 'These are must things to carry.'
-> 'must' used as Adjective-like (describing a noun).

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In []: