## AI414: Processing of Formal and Natural Languages

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# **Assignment 1**: Preprocessing Data

## Description:

Scrap data(text) from any two different websites then apply preprocessing techniques to it after that get all the unique values.

### The minimum preprocessing techniques required:

#### 1. Tokenization

- Splitting text into words, sentences, or subwords.
- Example: "I love NLP"  $\rightarrow$  ["I", "love", "NLP"]

### 2. Lowercasing

- Converting all text to lowercase to ensure uniformity.
- Example: "Machine Learning" → "machine learning"

## 3. Stopword Removal

- Removing common words like "the," "is," "and" that do not add much meaning.
- Example: "I love the new AI model"  $\rightarrow$  ["love", "new", "AI", "model"]

## 4. Removing Special Characters, Numbers and Punctuation

- Example: "Hello!!! NLP is awesome :) "  $\rightarrow$  "Hello NLP is awesome"
- Example: "COVID-19 cases reached 500000" → "COVID cases reached"

## Deleviry:

- The assignment will be done in **teams of three**.
- The assignment discussion will be held next Sunday 9/3 at lab time (the grades will be on discussion only there is no submission).