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BSAI-144

Outputs

1. Tokenize the paragraph into words and remove punctuation marks.

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TOKENIZE WORDS
 ['Natural', 'Language', 'Processing', 'NLP', 'is', 'a', 'fascinating', 'field', 'of', 'artificial', 'intelligence', 'that', 'focuses', 'on', 'the', 'interaction', 'between', 'humans', 'and',
CLEAN PARAGRAPH
 Natural Language Processing NLP is a fascinating field of artificial intelligence that focuses on the interaction between humans and computers using natural language It involves various tech
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2. Write a function to filter out numbers and special characters.

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Natural Language Processing NLP is a fascinating field of artificial intelligence that focuses on
the interaction between humans and computers using natural language It involves various
techniques such as tokenization stemming lemmatization and semantic analysis to process and
analyze textual data For example removing stopwords like the and is can help reduce noise in
the text while tasks like named entity recognition NER identify important entities such as
Google or New York Dependency parsing further reveals the grammatical structure of sentences
enabling deeper insights into relationships between words NLP techniques are widely applied in
applications like chatbots sentiment analysis and machine translation For instance a chatbot
might process  user queries per day while sentiment analysis can classify text into categories
like positive eg  neutral  or negative  Additionally machine translation systems can
translate up to  million words daily across multiple languages
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3. Validate if the given text contains profanity using profanity-check.

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The text contains profanity.
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4. Perform stemming on a given text using the Porter Stemmer algorithm.

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natur languag process ( nlp ) is a fascin field of artifici intellig that focus on the interact between human and comput use natur languag . it involv variou techniqu such as token , stem , l
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