Title: 2-Month Mastery of NLP (Natural Language Processing) Learning Roadmap for Advanced Learners

Week 1: Introduction to NLP and Text Data Preprocessing

- Module 1: Overview of NLP and its importance
    - Resource: [Stanford Online Course: Introduction to Natural Language Processing](https://www.cs.stanford.edu/class/cs224n/)

- Module 2: Text Data Preprocessing
    - Resource: [Text Preprocessing in Python](https://www.datacamp.com/courses/text-preprocessing-in-python) (Datacamp Course)

Week 2: Tokenization, Stopwords, and Stemming

- Module 3: Tokenization and Part-of-Speech Tagging
    - Resource: [Tokenization and Part-of-Speech Tagging in Python](https://www.datacamp.com/courses/tokenization-and-part-of-speech-tagging-in-python) (Datacamp Course)

- Module 4: Stopwords and Stemming
    - Resource: [Text Preprocessing: Stopwords and Stemming](https://www.datacamp.com/community/tutorials/text-preprocessing-stopwords-stemming-python) (Datacamp Tutorial)

Week 3: Named Entity Recognition (NER) and Sentiment Analysis

- Module 5: Named Entity Recognition
    - Resource: [Stanford Named Entity Recognition (NER)

Tagger](https://nlp.stanford.edu/software/CRF-NER.html)

- Module 6: Sentiment Analysis
    - Resource: [Sentiment Analysis Using TextBlob in Python](https://www.datacamp.com/community/tutorials/sentiment-analysis-using-textblob-python) (Datacamp Tutorial)

Week 4: Text Classification and Topic Modeling

- Module 7: Text Classification
    - Resource: [Text Classification in Python](https://www.datacamp.com/courses/text-classification-in-python) (Datacamp Course)

- Module 8: Topic Modeling
    - Resource: [Topic Modeling with Python](https://www.datacamp.com/courses/topic-modeling-with-python) (Datacamp Course)

Week 5: Dependency Parsing and Coreference Resolution

- Module 9: Dependency Parsing
    - Resource: [Stanford Dependency Parser](https://nlp.stanford.edu/software/lexparser.shtml)

- Module 10: Coreference Resolution
    - Resource: [Coreference Resolution Using Stanford CoreNLP](https://nlp.stanford.edu/software/corenlp.html)

Week 6: Question Answering Systems and Chatbots

- Module 11: Question Answering Systems

- Resource: [Stanford Question Answering Dataset (SQuAD)](https://rajpaul.github.io/SQuAD-explorer/)

- Module 12: Building a Simple Chatbot
  - Resource: [Building a Simple Chatbot Using Python](https://www.datacamp.com/community/tutorials/building-a-simple-chatbot-using-python) (Datacamp Tutorial)

Week 7: Machine Learning for NLP

- Module 13: Machine Learning for NLP Overview
  - Resource: [Machine Learning for NLP](https://www.youtube.com/watch?v=X_XcFZ9hTvA) (Coursera Course by Andrew Ng)

- Module 14: Applying Machine Learning Algorithms to NLP Tasks
  - Resource: [Machine Learning for Text Mining](https://www.datacamp.com/courses/machine-learning-for-text-mining) (Datacamp Course)

Week 8: Project: Applying NLP to a Real-world Problem

- Resource: Choose a real-world problem that interests you, such as sentiment analysis of social media posts or a question answering system for a specific domain, and apply the skills learned throughout the course to create a project.
  - Tools: Python, Libraries like NLTK, SpaCy, Scikit-learn, Gensim, and any APIs or databases needed for the specific problem.
  - Document the process, results, and insights gained from the project.

Throughout the course, also consider reading the latest research papers and articles in NLP from

reputable sources like ACL, EMNLP, and NAACL to stay updated with advancements in the field. Additionally, practice problem-solving through online platforms like Kaggle to further solidify understanding and gain practical experience.