NEXT WORD PREDICTOR

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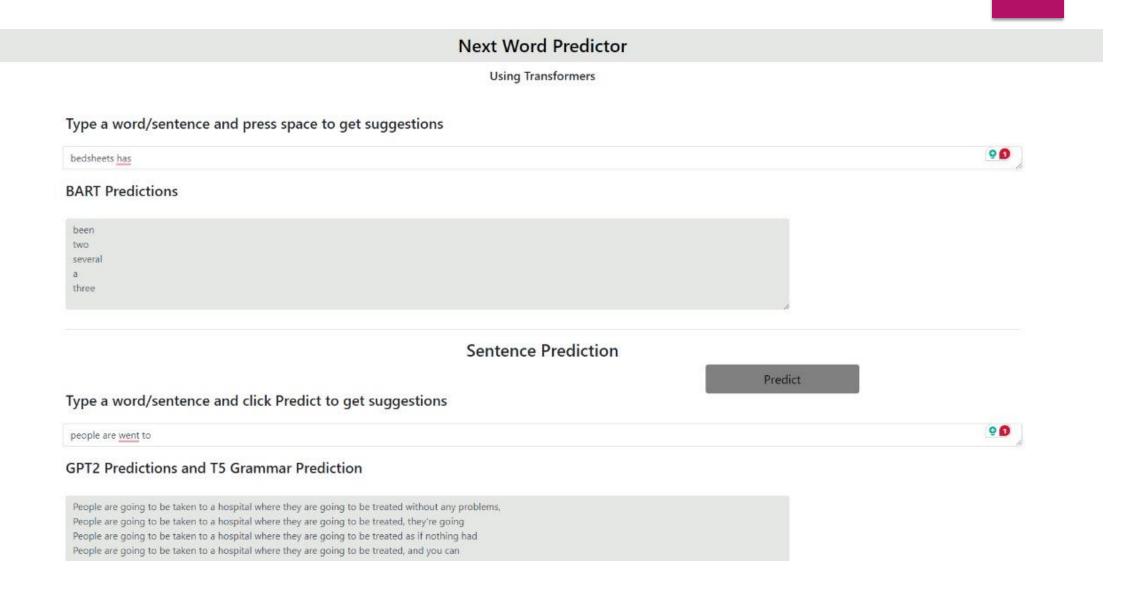
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TABLE OF CONTENT

- ▶ Introduction
- ▶ Demo
- ▶ Application & Implementation
- ▶ Data Collection and Preprocessing
- ▶ AI Model
- ▶ Future Enhancement
- ▶ Conclusion

Introduction

- Next word prediction system using Transformers for text generation.

- Enhances typing efficiency

- provides contextually relevant suggestions.

- Implemented : Next word prediction, Sentence continues, Grammar correction.

Demo

Next Word Predictor

Using Transformers

Type a word/sentence and press space to get suggestions

bedsheets has

BART Predictions

been
two
several
a
three

Sentence Prediction

Predict

Type a word/sentence and click Predict to get suggestions

people are went to

GPT2 Predictions and T5 Grammar Prediction

People are going to be taken to a hospital where they are going to be treated without any problems,
People are going to be taken to a hospital where they are going to be treated, they're going
People are going to be taken to a hospital where they are going to be treated as if nothing had
People are going to be taken to a hospital where they are going to be treated, and you can

Application & Implementation

- It's single page application to with 2 input boxes to predict the next word and next sentence.

- Features : Next word predictor, Next sentence predictor with Grammer correction.

- Language : Html, CSS, JavaScript, Python

- Framework : Flask

- Deployed on Heroku

Data Collection and Preprocessing

Source of data: Kaggle

Preprocessing steps:

- Tokenization

- Preparing Training Data

AI Model

▶ **Bart Model :**

 For predicting the next word

▶ **GPT2 Model :**

 For predicting the sentence continuation until a "."

 Grammer correction

Conclusion

- Developed a next word prediction system with robust performance and scalability.

- Overcame Challenges : Data sparsity, Real-time performance, Implemented solutions for optimized inference.

- Cloud Hosted Web Application is available to predict next word.