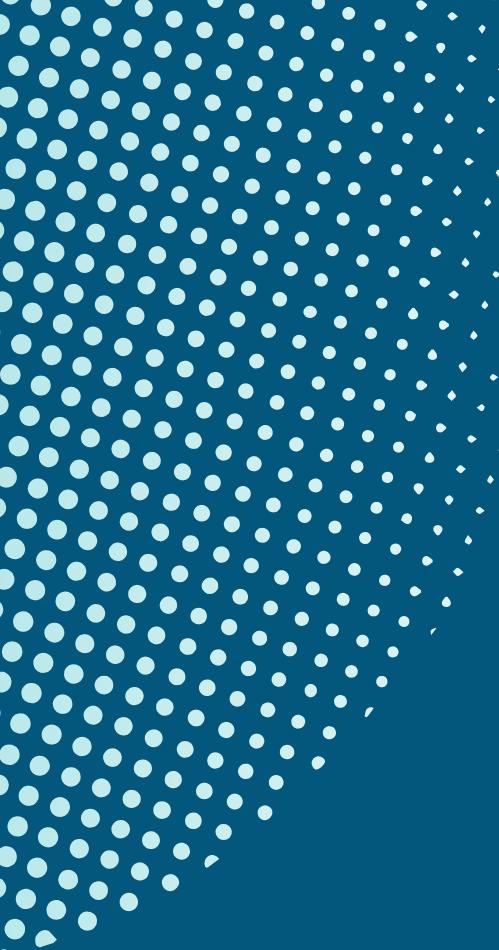


ROSHINI.R

FINAL PROJECT



“SENTENCE COMPLETION”

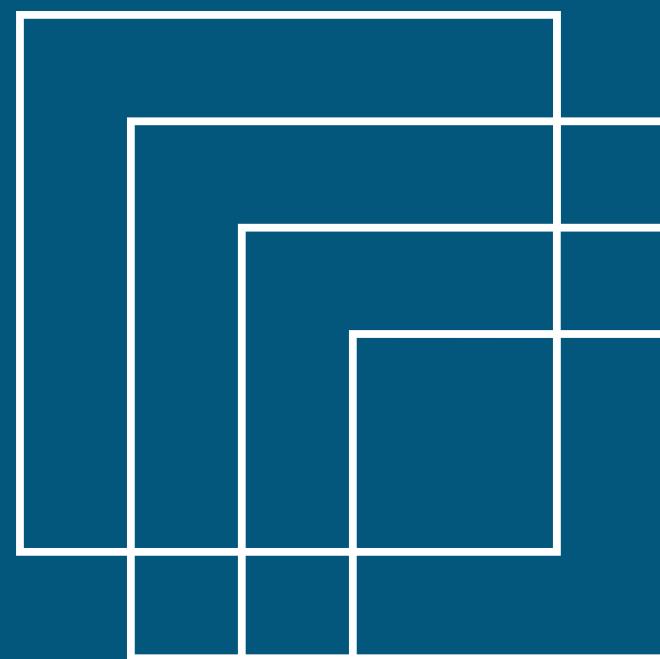
WITH “EXPLORING GENERATIVE AI”



# AGENDA



- 01** INTRODUVTION TO SENETENCE COMPLETION
- 02** PROJECT OVERVIEW
- 03** MODEL IMPLEMENTATION
- 04** DEMO
- 05** CONCLUSION



# INTRODUCTION TO SENTENCE COMPLETION

- Sentence completion is a natural language processing task that predicts the next word or phrase in a given sentence
- It has application in text prediction,autocomplete features and language modeling



# PROJECT OVERVIEW

- Our project focuses on building a simple sentence completion model using python
  - The model analyzes a corpus of text data to predict the most likely next word given a sentence prefix
- 

# MODEL IMPLEMENTATION

- we implemented a simple word prediction model using python
- The model utilizes a frequency---based approach to predict the next word based on the most frequent word following the prefix in the corpus

# DEMO



```
# Sample sentence completion model using Python

# Define a simple word prediction model
class WordPredictor:
    def __init__(self, corpus):
        # Initialize the word frequencies from the corpus
        self.word_freq = {}
        for sentence in corpus:
            words = sentence.split()
            for word in words:
                if word in self.word_freq:
                    self.word_freq[word] += 1
                else:
                    self.word_freq[word] = 1

    def predict_next_word(self, prefix):
        # Predict the next word based on the most frequent word following the prefix
        max_freq = 0
        next_word = None
        for word in self.word_freq:
            if word.startswith(prefix) and self.word_freq[word] > max_freq:
                max_freq = self.word_freq[word]
                next_word = word
        return next_word

# Example usage
```

[View raw code](#)

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0s

```
# Example usage
corpus = [
    "The quick brown fox jumps over the lazy dog.",
    "The cat in the hat.",
    "A stitch in time saves nine."
]

# Initialize the word predictor with the corpus
predictor = WordPredictor(corpus)

# Predict the next word for a given prefix
prefix = "The"
next_word = predictor.predict_next_word(prefix)
print("Predicted next word for prefix '{}': {}".format(prefix, next_word))
```

# OUTPUT

Predicted next word for prefix 'The': The

# CONCLUSION

- Sentence completion is a useful natural language processing task with various applications.
- While our model is simple, it demonstrates the basic principles of word prediction and can serve as a starting point for more advanced language modeling projects.