1. **Create a program for word sense disambiguation using the Lesk Algorithm using python.**

**Aim:**

To create a program for word sense disambiguation using the Lesk algorithm using python.

**Code:**

import nltk

from nltk.wsd import lesk

from nltk.tokenize import word\_tokenize

from nltk.corpus import wordnet

# Ensure necessary NLTK resources are downloaded

nltk.download('wordnet')

nltk.download('punkt')

# Function for Word Sense Disambiguation using Lesk Algorithm

def disambiguate\_word(sentence, word):

best\_sense = lesk(word\_tokenize(sentence), word)

if best\_sense:

print(f"\nBest Sense for '{word}': {best\_sense.name()} - {best\_sense.definition()}")

else:

print(f"No sense found for '{word}' in the given sentence.")

# Take user input for WSD

sentence = input("Enter a sentence: ")

word = input("Enter the word to disambiguate: ")

disambiguate\_word(sentence, word)

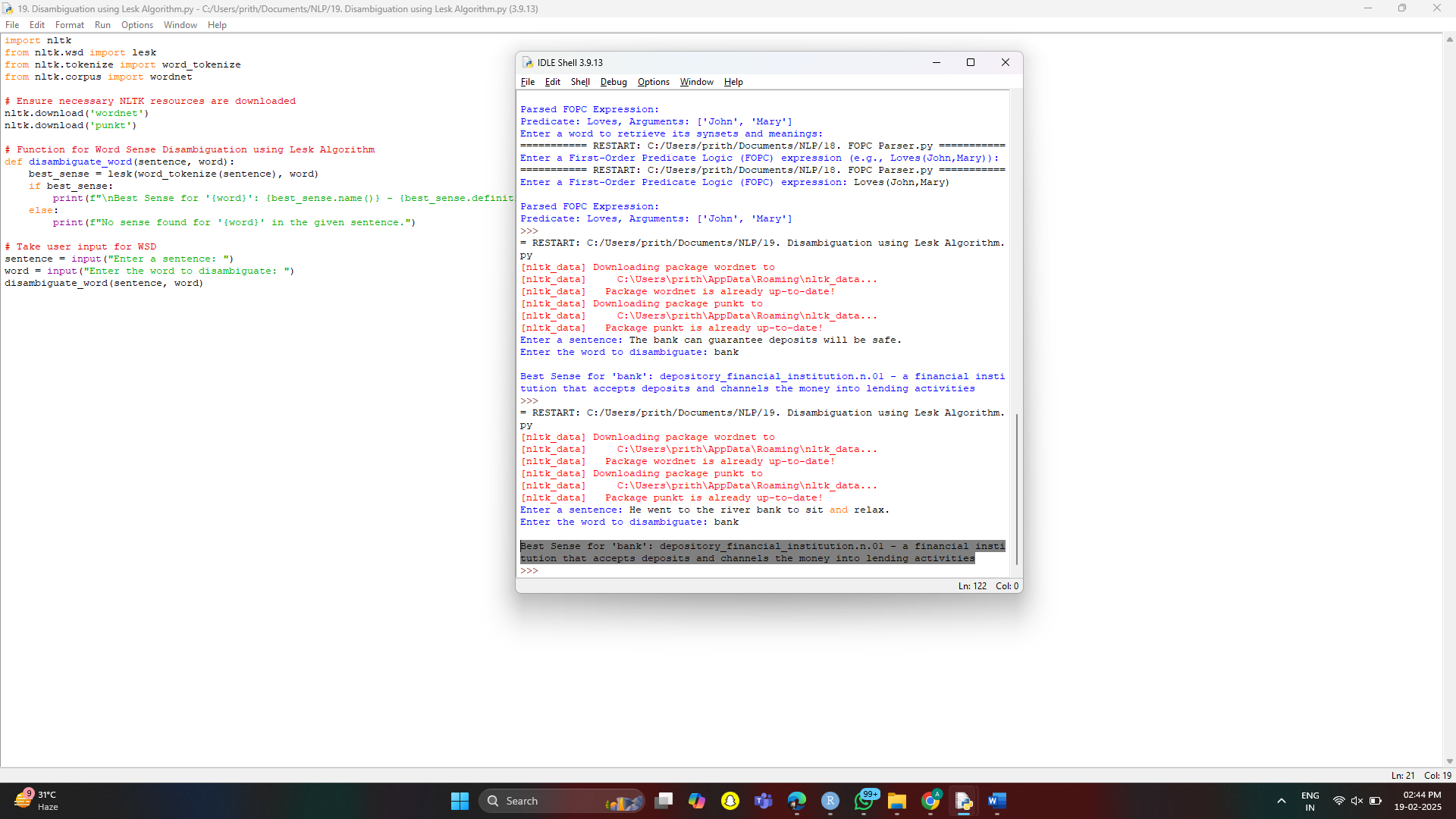
**Input:**

Enter a sentence: He went to the river bank to sit and relax.

Enter the word to disambiguate: bank

**Output:**

Best Sense for 'bank': depository\_financial\_institution.n.01 - a financial institution that accepts deposits and channels the money into lending activities

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