

Python for Beginners: Portfolio Project

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Project Title:

The Free Lexicon

Project Code:

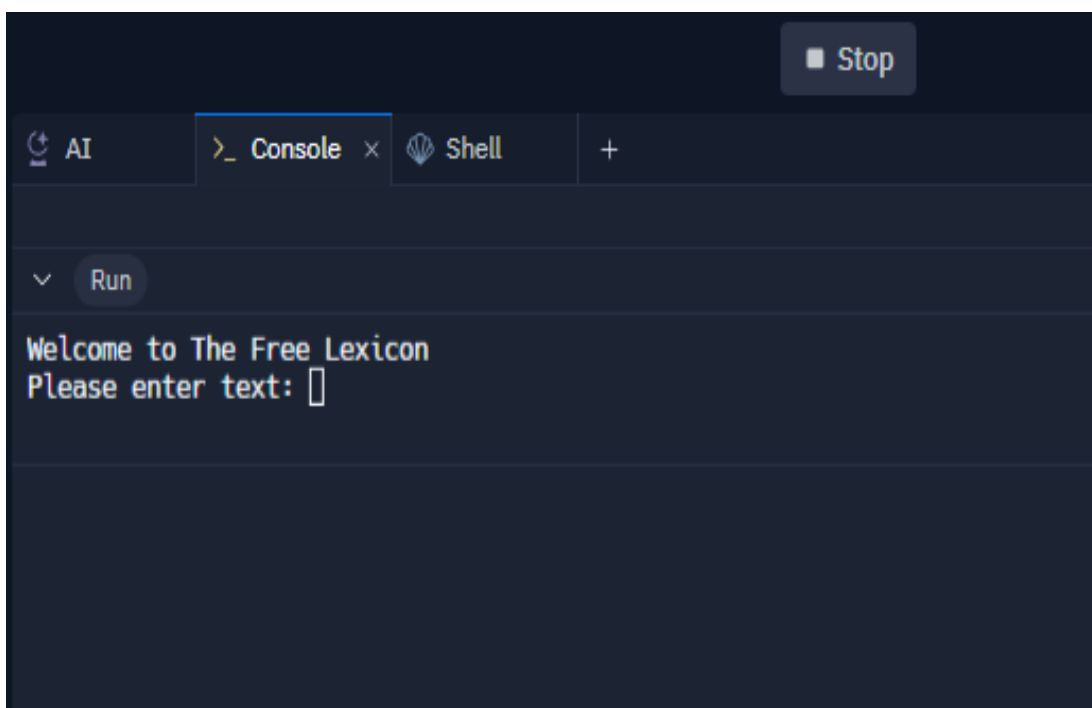
<https://replit.com/@aaynzeddicus/The-Free-Lexicon#main.py>

Description:

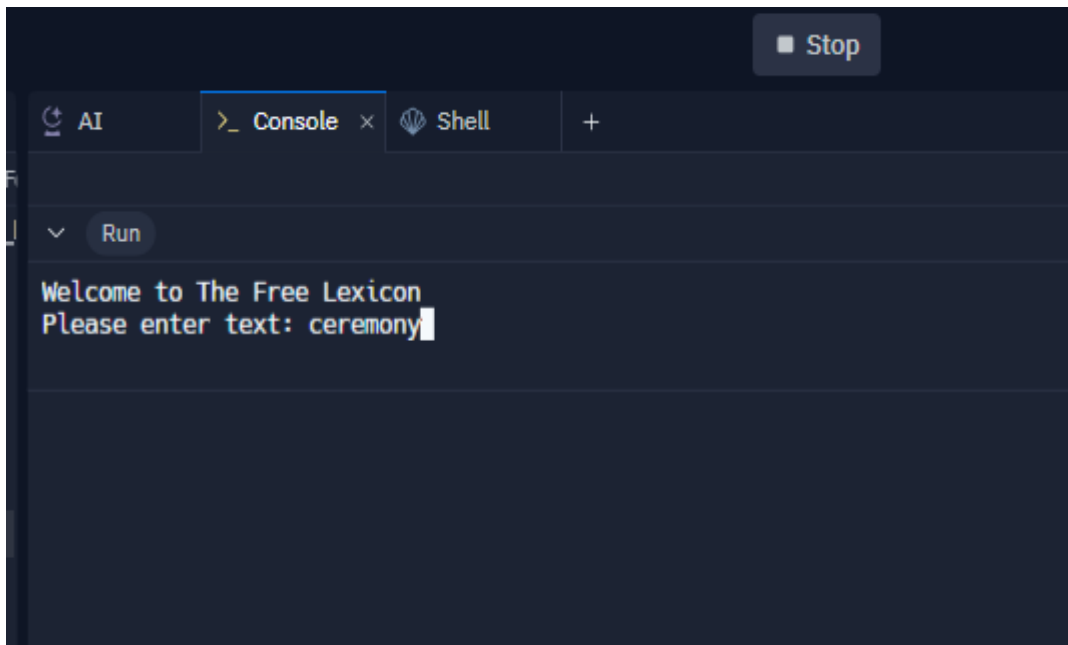
The Free Lexicon is a simple Python program designed to fetch the meaning of words in the English language. The application uses the Free Dictionary API to get the part of speech and the definition of words in English language. The program can be used by anyone who wants to look up the meanings of words in a dictionary, such as teachers, student, second-language speakers, etc.

How to Use:

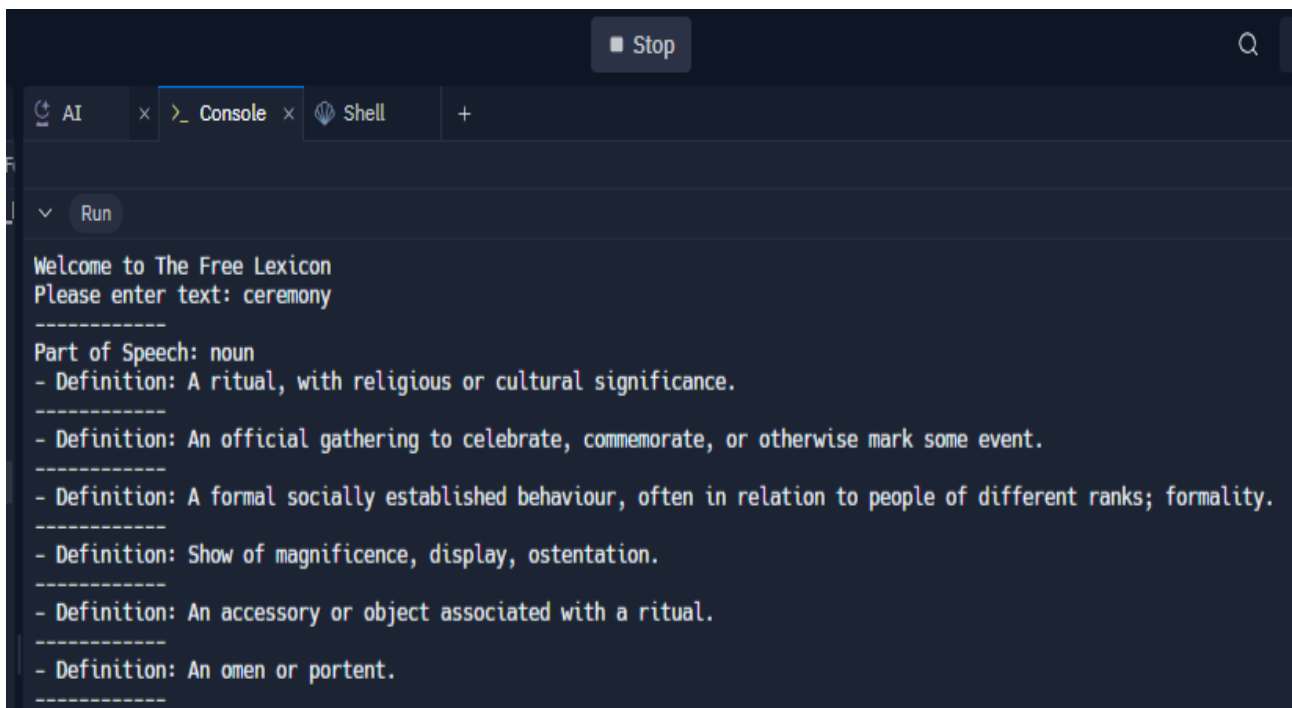
1. Visit the Replit link provided above.
2. Click on the “Run” button
3. Once prompted, enter the desired entry word you wish to search.
4. The program will display the part of speech and the definition of the entry word.
5. To exit the program, simply close the Replit window.



User is prompted to enter a word he wants to search for.



User types in the word he wants to look up in the dictionary.



Output after the User searches the word: ceremony.

Technical Details:

- In the program, a function is defined for the dictionary word search process so that the code can be reused. This function is set to run in a loop of ten times in the program.
- Error handling is added for cases when there are no definitions found for the entered text and cases when there are other types of potential API request errors such as no internet connection.
- Descriptive comments are also added to the code to explain each step and its purpose.
- Line breaks were added to the code. This will make the output more readable and easier to understand for the users.

Future Plans:

- **Multilingual dictionary:** More languages can be incorporated into the program so that speakers of different languages can use it.
- **Audio transcription:** Allow users to listen to an audio transcription of the searched word so that users can know how the words are being pronounced.
- **Example sentences:** This will allow users to not just see the meanings of words but also how they are being used in sentences.

Python Code:

```
# Import the requests library for making API calls
import requests

# Prints a welcome message
print("Welcome to The Free Lexicon")

# Define a function for the dictionary word search process
def dict():
    try:
        # API request setup
        request_url = "https://api.dictionaryapi.dev/api/v2/entries/en/"
        word_request = input("Please enter text: ")
        word_input = request_url + word_request

        # Get data from the Web API
        response = requests.get(word_input)
        # Check for a successful response (status code 200)
        if response.status_code == 200:
            # Convert the JSON data object into a Python-friendly format
            data = response.json()
            for entry in data:
                # Access part of speech from entry
                for meaning in entry["meanings"]:
                    # Print a separator line
                    print("-----")
                    # Print the part of speech
                    print("Part of Speech:", meaning["partOfSpeech"])
```

```

        # Access definitions from entry
        for definition in meaning["definitions"]:
            # Print the definition(s)
            print("- Definition:", definition["definition"])
            # Print a separator line
            print("-----")
    else:
        # For non-200 status code responses, convert into a Python-friendly format
        error_data = response.json()
        # Get the status code and print it
        print("Error:", response.status_code)
        # Get the error title from the error data and print it
        print("Sorry,", error_data["title"])
        # Print a separator line
        print("-----")

except Exception as error:
    # Handle other potential API request errors
    print("Sorry, there was a problem processing this request")
    print(error)

# A loop for running the "dict()" function ten times.
for i in range(10):
    dict()

```