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Build an Interactive English Dictionary using Python programming language

**Vasu Shah** Jan 7, 2019 · 3 min read

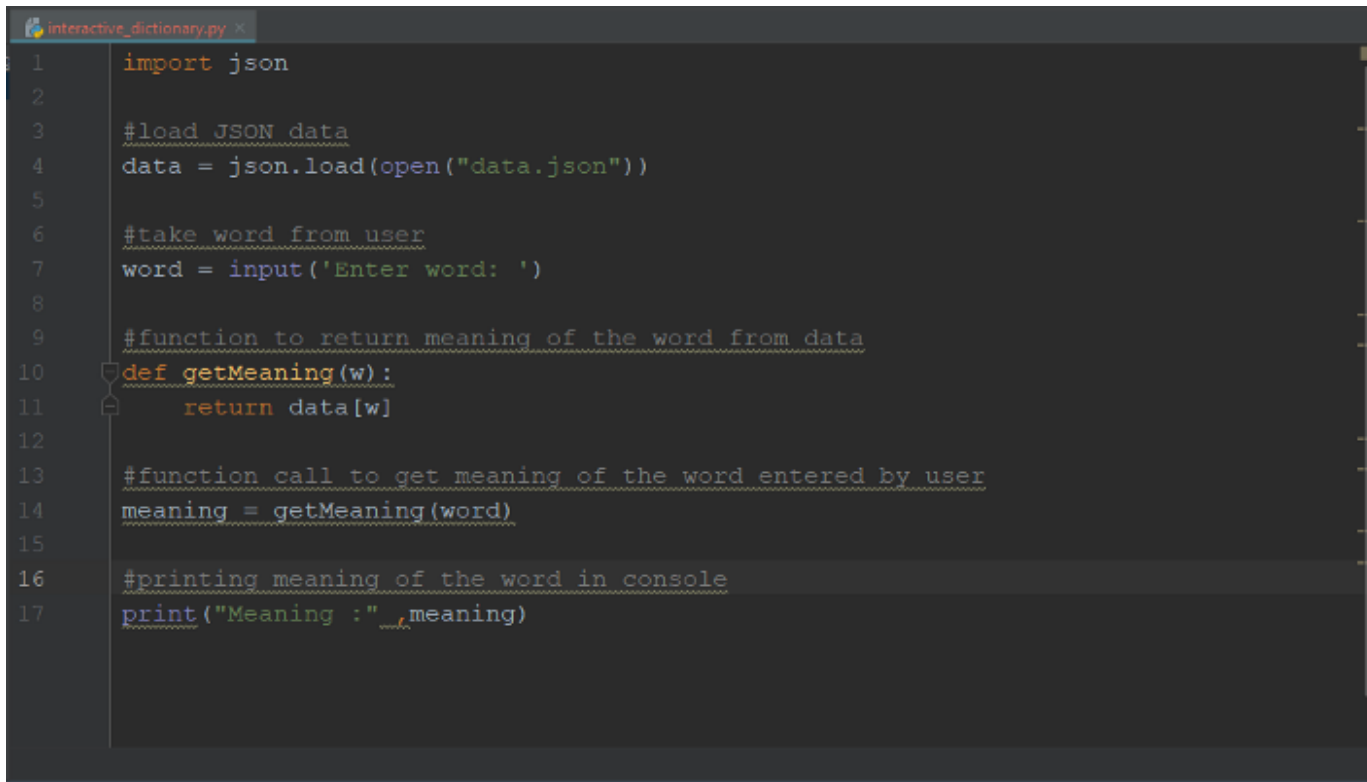
It is a console application, made by using python programming language. It takes the word from the user and returns its definition from the data.json file. It also gives best-matched word when the user enters the word with the wrong spelling.

Git-link: https://github.com/vasu2411/Interactive_Dictionary.git

Create a new python project named “Interactive_Dictionary” (you can give any name to your python project).

The data source: Download [data.json](#) file.

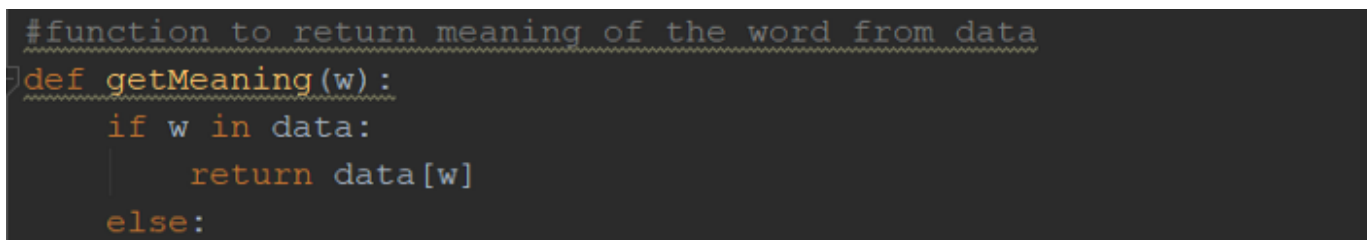
Load JSON Data and return the definition of the word (entered by user).



```
1 import json
2
3 #load JSON data
4 data = json.load(open("data.json"))
5
6 #take word from user
7 word = input('Enter word: ')
8
9 #function to return meaning of the word from data
10 def getMeaning(w):
11     return data[w]
12
13 #function call to get meaning of the word entered by user
14 meaning = getMeaning(word)
15
16 #printing meaning of the word in console
17 print("Meaning : ", meaning)
```

Now, what if the entered word is not there in the dictionary(data.json)?

Modify our function like below code:



```
#function to return meaning of the word from data
def getMeaning(w):
    if w in data:
        return data[w]
    else:
```

```
return "The word doesn't exist. Please double check it."
```

By implementing this, we implemented logic to give an appropriate message if the word doesn't exist in data. But now, the issue is if we will enter "rain", it will give definition but what if we will write "RAIN", "Rain", "raIN"?

add `w=w.lower()` in our function as shown below.

```
#function to return meaning of the word from data
def getMeaning(w):
    #for case sensitivity
    w = w.lower()
    #if-else to check word exist in our data or not
    if w in data:
        return data[w]
    else:
        return "The word doesn't exist. Please double check it."
```

Now, what if the user will enter a word with wrong spelling? Here, I am talking about giving a suggestion like if by mistake user enters "rainn" instead of "rain", we have to give an appropriate message for a suggestion.

import `get_close_matches` from the `difflib` library.

```
from difflib import get_close_matches
```

modify our function like the code shown below:

```
def getMeaning(w):
    #for case sensitivity
    w = w.lower()
    #if-else to check word exist in our data or not
    if w in data:
        return data[w]
    #give matching word
    elif len(get_close_matches(w, data.keys())) > 0:
        close_match = get_close_matches(w, data.keys())[0]
        print("Did you mean %s instead? Enter Y if yes or N if no: " % close_match)
```

```

choice = input()
choice = choice.lower()
if choice == 'y':
    return data[close_match]
elif choice == 'n':
    return "The word doesn't exist. Please double check it."
else:
    return "Sorry, We didn't understand your entry."
else:
    return "The word doesn't exist. Please double check it."

```

Now, we are almost done with our project. Only one thing which is remaining is, When we display definition or meaning as an output, it shows square bracket and commas. We don't want to show that as an output. So, just use for loop and print each element of the list like shown below:

```

#printing meaning of the word in console
if type(meaning) == list:
    for item in meaning:
        print(item)
else:
    print(meaning)

```

Here, we checked for type because, if we have list, we will go through that list but if we have string why will we go through it?

Below are some outputs of our application:

```

Enter word: rain
Precipitation in the form of liquid water drops with diameters greater than 0.5 millimetres.
To fall from the clouds in drops of water.

Process finished with exit code 0

```

```

Enter word: RAIN
Precipitation in the form of liquid water drops with diameters greater than 0.5 millimetres.
To fall from the clouds in drops of water.

Process finished with exit code 0
|

```

```
Enter word: Rain
Precipitation in the form of liquid water drops with diameters greater than 0.5 millimetres.
To fall from the clouds in drops of water.

Process finished with exit code 0
```

```
Enter word: rainn
Did you mean rain instead? Enter Y if yes or N if no:
Y
Precipitation in the form of liquid water drops with diameters greater than 0.5 millimetres.
To fall from the clouds in drops of water.

Process finished with exit code 0
```

```
Enter word: rainn
Did you mean rain instead? Enter Y if yes or N if no:
N
The word doesn't exist. Please double check it.

Process finished with exit code 0
```

```
Enter word: rainn
Did you mean rain instead? Enter Y if yes or N if no:
ahhah
Sorry, We didn't understand your entry.

Process finished with exit code 0
```

```
Enter word: afagsdhknljvjq
The word doesn't exist. Please double check it.

Process finished with exit code 0
```

Python Json Dictionary Application Console

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