CT60A4800 Fundamentals of smart systems – Assignment 5

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A simple Python chatbot that uses conditional statements to recognize and answer questions about the current location of the user, such as the country, the city, or the IP address.

The current IP address is obtained from https://api.ipify.org.

The information of the current location is obtained from https://ipapi.co.

https://api.ipify.org returns a *requests.models.Response* class, which is then converted to a string containing the IP address. https://ipapi.co returns a dictionary with details of the location associated with the given IP address.

Demonstration video: https://github.com/AndrewTrieu/location-chatbot

```python
# A chatbot that can answer questions about the weather and the time of the current location.
import requests
# Get the current location
def get_location():
    ip = requests.get('https://api.ipify.org').text
    location = requests.get('https://ipapi.co/' + ip + '/json/').json()
    return location
# Chatbot
def chatbot():
    # Get the location
    location = get_location()
    # Print the greeting
    print('Hello, I am a chatbot. I can answer questions about information of your current location.')
    while True:
        # Ask the user a question
        question = input('Ask me a question: ').lower()
        # Check if the user wants to quit
        if 'exit' in question or 'bye' in question:
            print('Bye!')
            return
        # Check if the user wants to know the current location
        elif 'where' in question:
            print('You are in ' + location['city'] + ', ' +
                location['region'] + ', ' + location['country_name'] + '.')
        # Check if the user wants to know the currency
        elif 'money' in question or 'currency' in question:
            print('The currency of ' + location['country_name'] + ' is ' + location['currency_name'] + ' or ' +
location['currency'] + '.')
        # Check if the user wants to know the area of the country
        elif 'area' in question:
            print('The area of ' + location['country_name'] + ' is ' + str(location['country_area']) + ' km^2.')
        # Check if the user wants to know the population of the country
        elif 'population' in question:
            print('The population of ' + location['country_name'] + ' is ' + str(location['country_population']) + '.')
        # Check if the user wants to know the calling code of the country
        elif 'phone' in question or 'calling' in question or 'call' in question:
            print('The calling code of ' + location['country_name'] + ' is ' + location['country_calling_code'] + '.')
        # Check if the user wants to know the country
        elif 'country' in question:
            print('The country is ' + location['country_name'] + '.')
        # Check if the user wants to know the region
        elif 'region' in question:
            print('The region is ' + location['region'] + '.')
        # Check if the user wants to know the city
        elif 'city' in question:
            print('The city is ' + location['city'] + '.')
        # Check if the user wants to know the latitude
        elif 'latitude' in question:
            print('The latitude of your location is ' +
                str(location['latitude']) + '.')
        # Check if the user wants to know the longitude
        elif 'longitude' in question:
            print('The longitude iof your location is ' +
                str(location['longitude']) + '.')
        # Check if the user wants to know the IP address
        elif 'ip address' in question:
            print('The IP address of your location is ' + location['ip'] + '.')
        # Check if the user wants to know the postal code
        elif 'postal code' in question:
            print('The postal code of your location is ' +
                location['postal'] + '.')
        # Print error message if the question is not recognized
        else:
            print('I do not understand your question.')
# Run the chatbot
chatbot()
```