**How to Call Phylotastic Web Services**

**Language: Ruby**

**GET** Method:

#Template of a Ruby client to call web services using HTTP GET (*service\_client\_get.rb*)

require 'net/http'

def call\_service(input\_parameter1, input\_parameter2 )

uri = URI('http://hostname/servicepath/servicename')

params = { :parameter1\_name => input\_parameter1, parameter2\_name =>input\_parameter2}

uri.query = URI.encode\_www\_form(params)

response = Net::HTTP.get\_response(uri)

response\_body = response.body if response.is\_a?(Net::HTTPSuccess)

#display the response from the web service

puts response\_body

end

if \_\_FILE\_\_ == $0

call\_service(parameter1\_value, parameter2\_value)

end

Example: (*Call a service to get all Species from a Taxon filtered by country*)

require 'net/http'

def call\_service(param1\_val, param2\_val)

uri = URI('http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/country\_species')

params = { :taxon => param1\_val, :country => param2\_val}

uri.query = URI.encode\_www\_form(params)

response = Net::HTTP.get\_response(uri)

response\_body = response.body if response.is\_a?(Net::HTTPSuccess)

puts response\_body

end

if \_\_FILE\_\_ == $0

call\_service("Vulpes", "Nepal")

end

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**POST** Method:

#Template of a Ruby client to call web services using HTTP POST (*service\_client\_post.rb*)

require 'net/http'

require 'json'

require 'uri'

def call\_service(input\_data)

url = 'http://hostname/servicepath/servicename'

uri = URI.parse(url)

headers = {"Content-Type" => "application/json", "Accept" => "application/json"}

# Creates a http object

http = Net::HTTP.new(uri.host, uri.port)

response = http.post(uri.path, input\_data.to\_json, headers)

#display the response from the web service

puts response.body

end

if \_\_FILE\_\_ == $0

input\_data = {"key"=> value}

call\_service(input\_data)

end

Example: (*Call a service to resolve scientific names with Open Tree TNRS*)

require 'net/http'

require 'json'

require 'uri'

def call\_service(input\_data)

url = 'http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/ot/names'

uri = URI.parse(url)

headers = {"Content-Type" => "application/json", "Accept" => "application/json"}

# Creates a http object

http = Net::HTTP.new(uri.host, uri.port)

response = http.post(uri.path, input\_data.to\_json, headers)

#display the response from the web service

puts response.body

end

if \_\_FILE\_\_ == $0

input\_data = {"scientificNames"=> ["Formica exsectoides", "Formica pecefica"]}

call\_service(input\_data)

end

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**Language: Python**

**GET** Method:

#Template of a Python client to call web services using HTTP GET (*service\_client\_get.py*)

import requests

import urllib

def call\_service(inputData):

url = "http://hostname/servicepath/servicename"

headers = {'content-type': 'application/json'}

encoded\_data = urllib.urlencode(inputData)

response = requests.get(url, params=encoded\_data, headers=headers)

if response.status\_code == requests.codes.ok:

print response.text

else:

print 'Error in response'

if \_\_name\_\_ == '\_\_main\_\_':

inputData = {

'parameter1Name': 'parameter1Value',

'parameter2Name': 'parameter2Value'

}

call\_service(inputData)

Example: (*Call a service to get all Species from a Taxon filtered by country*)

import requests

import urllib

def call\_service(inputData):

url = "http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/country\_species"

headers = {'content-type': 'application/json'}

encoded\_data = urllib.urlencode(inputData)

response = requests.get(url, params=encoded\_data, headers=headers)

if response.status\_code == requests.codes.ok:

print response.text

else:

print 'Error in response'

if \_\_name\_\_ == '\_\_main\_\_':

inputData = {

'taxon': 'Panthera',

'country': 'Bangladesh'

}

call\_service(inputData)

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**POST** Method:

#Template of a Python client to call web services using HTTP POST (*service\_client\_post.py*)

import json

import requests

def call\_service(inputData):

url = "http://hostname/servicepath/servicename"

headers = {'content-type': 'application/json'}

json\_inputdata = json.dumps(inputData)

response = requests.post(url, data=json\_inputdata, headers=headers)

if response.status\_code == requests.codes.ok:

print response.text

else:

print 'Error in response'

if \_\_name\_\_ == '\_\_main\_\_':

inputData = {

'parameter1Name': 'parameter1Value',

'parameter2Name': 'parameter2Value'

}

call\_service(inputData)

Example: (*Call a service to resolve scientific names with Open Tree TNRS*)

import json

import requests

def call\_service(inputData):

url = "http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/ot/names"

headers = {'content-type': 'application/json'}

json\_inputdata = json.dumps(inputData)

response = requests.post(url, data=json\_inputdata, headers=headers)

if response.status\_code == requests.codes.ok:

print response.text

else:

print 'Error in response'

if \_\_name\_\_ == '\_\_main\_\_':

inputData = {

'scientificNames': ["Formica exsectoides", "Formica pecefica"]

}

call\_service(inputData)