

## Python Server Code

```
#!/usr/local/bin/python

# IMPORT libraries

import cgi

import json

import sys

import cgitb

import re

# ENABLE CGI stuff so that you may get ERROR msgs

cgitb.enable()

# The FIRST print statement MUST write a header followed by a blank line
print "Content-Type: text/json\n"

# SHOW Python Version - useful

#print "python version = " + sys.version

# Obtain any PARAMETERS passed in via GET or POST from cgi.FieldStorage

# Here create an Object that 'acts' like a Dictionary but is not
parmObj = cgi.FieldStorage() #GET the PARAMS

# Iterate over the incoming KEYS
for key in parmObj.keys():

    (key, parmObj.getvalue(key))

# FIND a particular key and value

lookForKey = 'phone'

if (parmObj.has_key('phone')):

    print "found a phone number: " + parmObj.getvalue(lookForKey)

else:

    print "no such key:" + lookForKey

# RETURN data as a json string -

# Create a python dict and use json.dumps
```

```

data = {}

instring = str(parmObj.getvalue(lookForKey))

if len(instring) < 9:

    data['isValidPhone'] = False

elif len(instring) > 12:

    data['isValidPhone'] = False

elif re.search('^(?:(?:\+?1\s*(?:[.-]\s*)?)?(?:\(\s*([2-9]1[02-9]|[2-9][02-8]1|[2-9][02-8][02-9])\s*\)|([2-9]1[02-9]|[2-9][02-8]1|[2-9][02-8][02-9]))\s*(?:[.-]\s*)?)?([2-9]1[02-9]|[2-9][02-9]1|[2-9][02-9]{2})\s*(?:[.-]\s*)?([0-9]{4})?(?:\s*(?:#|x\.?|ext\.?|extension)\s*(\d+))?$' , instring):

    data['isValidPhone'] = True

else:

    data['isValidPhone'] = False

# CONVERT dictionary to a json string
json_data = json.dumps(data)

# SEND back to client

print json_data

```

### html file

```

<!DOCTYPE html>

<html>

<head>

<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.1.1/jquery.min.js"></sc
ript>

<script>

// JavaScript Function for calling a server

```

```

function validatePhone(phone) {

    // set up URL

    url = 'http://lyle.smu.edu/~seungkil/3342/hw5/isValidPhone.py';

    // let you know that phone number is coming in ok - remove when
working

    alert("ready to check the number: " + phone);


    // AJAX CALL


$.ajax({

    type: 'GET',

    url: url,

    dataType: "json",

    async: false,

    data: {phone : phone},

    success: function(msg) {

        // msg will be a JS (JSON) Object with fields

        console.log("return value = " + msg.isValidPhone);

        alert(msg.isValidPhone);

    },

    error: function(jqXHR, exception) {

        if (jqXHR.status === 0) {

            alert('Unable to connect.\n Verify Network.');
```

```

        } else if (exception === 'timeout') {
            alert('Time out error.');
```

```

        } else if (exception === 'abort') {
            alert('Ajax request aborted.');
```

```

        } else {
            alert('Uncaught Error.\n' + jqXHR.responseText);
        }
    }
}

});
}

```

```

// code to execute after button press
function showPhoneOnPage() {
    // pull value out of TEXT field
    var s1 = document.getElementById('phone1').value;
    validatePhone(s1);
    OnClientClick="AJAXMethod(); return false;"
    var areaCode = s1.substring(0,3);
    var area;
    // use this value to update web page

    if (areaCode == '202') {
        area = 'Welcome From: Washington, DC'
    }

    else if (areaCode == '205') {
        area = 'Welcome From: Birmingham, AL'
    }
}

```

```
else if (areaCode == '206') {
    area = 'Welcome From: Seattle, WA'
}
else if (areaCode == '210') {
    area = 'Welcome From: San Antonio, TX'
}
else if (areaCode == '212') {
    area = 'Welcome From: New York, NY'
}
else if (areaCode == '213') {
    area = 'Welcome From: Los Angeles, CA'
}
else if (areaCode == '214') {
    area = 'Welcome From: Dallas, TX'
}
else if (areaCode == '215') {
    area = 'Welcome From: Philadelphia, PA'
}
else if (areaCode == '216') {
    area = 'Welcome From: Cleveland, OH'
}
else if (areaCode == '217') {
    area = 'Welcome From: Chicago, IL'
}
else{
    area = 'We Dunno Where You From Boooooooy!'
}

document.getElementById('foobar').innerHTML = area;
```

```
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<h2>Basic Setup For Hw5</h2>
```

```
Enter Phone Number: <input name="phoneNumber" type="text" maxlength="12"
id="phone1" />
```

```
<br/><br/>
```

```
<button onclick="showPhoneOnPage()">Click ME after entering some data in
box</button>
```

```
<br/><br/>
```

```
<h3 id="foobar">WHo AM I?</h3>
```

```
</body>
```

```
</html>
```