

# .NET PROGRAMMING EXERCISE

## OVERVIEW

This exercise involves creating a simple website where users can enter their zip code (i.e. 90210) and receive a weather report back for the next 5 days with high and low temperatures displayed for every day along with the name of the city that corresponds with the zip code entered.

Once completed please zip the project files into a file named using the following format: FIRSTNAME-LASTNAME-MMDDYYYY.zip

## REQUIREMENTS

### PART A: WEB API SERVICE

1. Create a .NET Web API JSON service that takes in the following JSON request, makes a service call to a SOAP weather service, and returns a JSON response as follows:

- Service Request JSON:

```
{ "zip_code": "90210" }
```

- Service Response JSON:

```
{
  "result_code": "0",
  "result_content": {
    "data": {
      "city_name" : "Beverly Hills",
      "2014-06-05T00:00:00": {
        "morning_low": "20",
        "daytime_high": "40"
      },
      "2014-06-06T00:00:00": {
        "morning_low": "21",
        "daytime_high": "41"
      },
      "2014-06-07T00:00:00": {
        "morning_low": "22",
        "daytime_high": "42"
      },
      "2014-06-08T00:00:00": {
        "morning_low": "23",
        "daytime_high": "43"
      },
      "2014-06-09T00:00:00": {
        "morning_low": "24",
        "daytime_high": "44"
      }
    }
  }
}
```

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**NOTE:** The service should return a "result\_code" of 0 for success and any data passed back should be put into "result\_content". Any errors from the SOAP service or otherwise should trigger a non-0 "result\_code" with some descriptive text in the "result\_content" node.

2. The SOAP service you will be creating an interface for can be found here:

<http://www.service-repository.com/service/overview/1132083200> !

#### **PART B: FRONT END GUI FOR SERVICE**

1. Create a simple web page with a single input field named "Zip Code:" and a "Submit" button.
2. On "Submit" the zip code should be validated. If not valid, the user needs some indication that there was an error and they will need to fix it before they proceed.
3. Once the zip code is valid, an AJAX JSON service call must be made to the JSON web service created in **Part A**.
4. Once the call is made and returned successfully, the 5 day high/low forecast should be displayed on the page.
5. If there is an error with the request an error should be displayed on the page.

#### **NOTES**

- The final solution should behave the same in IE, Chrome, Firefox, and Safari.
- APPLICANT