REST API call to

Get Weather and Wind Updates from

A Weather API Service

Contents

Overview of REST

- REST APIs are different from its predecessor SOAP.
- An API is an interface between two systems, how they communicate and interact with each other.
- Web services use HTTP protocol for communicating request and responses.
- They are language agnostic and work on any platform for communication.
- When a system makes a request, a response is generated.
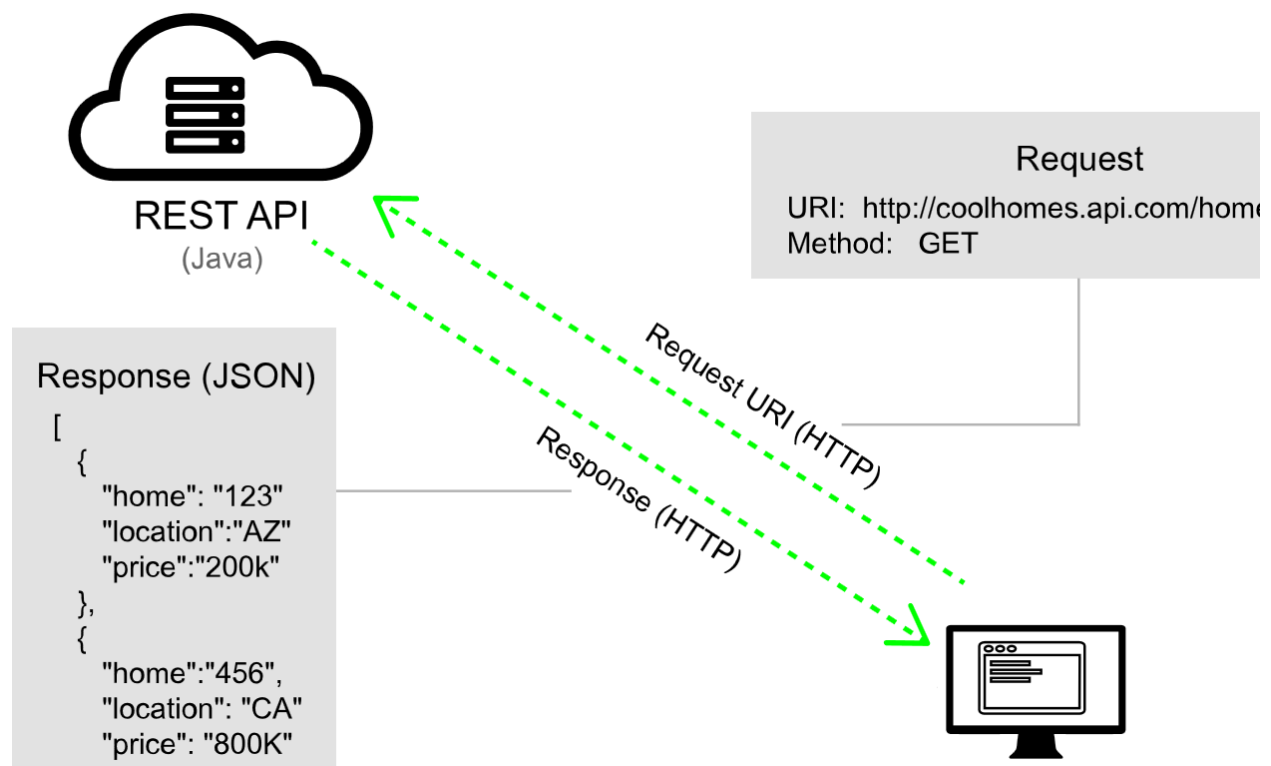
Source:

REST API call to get weather conditions of a place with a zip code.

GET:
"https://api.openweathermap.org/data/2.5/weather?zip=75098&units=imperial&appid=2ac115d3bf152
bd58d446dcf3b07ea55",

Input param- API key and the zip code of the place.

Response- JSON object

```html
<html>
<meta charset="UTF-8">
  <head>
      <title>Sample page</title>
      <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>
      <script>
          var settings = {
  "async": true,
  "crossDomain": true,
  "url": "https://api.openweathermap.org/data/2.5/weather?zip=75098&units=imperial&appid=2ac115d3bf152bd58d446dcf3b07ea55",
  "method": "GET"
}

$.ajax(settings).done(function (response) {
  console.log(response);
  console.log("wind spped: " + response.wind.speed);
  var content = response.wind.speed;
  $("#windSpeed").append(content);
   var currentWeather = response.weather[0].main;
  $("#currentWeather").append(currentWeather);

});
      </script>
  </head>
<body>
   <h1>Sample page</h2>
  <div id="windSpeed">Wind speed: </div>
  <div id="currentWeather">currentWeather: </div>
</body>
</html>
```

REST API call to get wind conditions of a place with a zip code and country code.

GET:
"https://api.openweathermap.org/data/2.5/weather?zip=75098,us&appid=fd4698c940c6d1da602a70ac34f0b147&units=imperial",

Input param- API key and the zip code of the place and the country code.

Response- JSON object

```html
<html>
    <head>
        <script src="https://code.jquery.com/jquery-2.1.1.min.js"></script>
        <link rel="stylesheet"  href='https://maxcdn.bootstrapcdn.com/bootstrap/3.3.4/css/bootstrap.min.css' rel='stylesheet' type='text/css'>
        <title>OpenWeatherMap Integration</title>
        <style>
            #wind_direction, #wind_speed, #wind_speed_unit, #wind_degree_unit, #weather_conditions, #main_temp_unit, #main_temp {color: red; font-weight: bold;}
            body {margin:20px;}
        </style>
    </head>
    <body>
        <script>
            function checkWind() {
                var settings = {
                    "async": true,
                    "crossDomain": true,
                    "dataType": "json",
                    "url": "https://api.openweathermap.org/data/2.5/weather?zip=75098,us&appid=fd4698c940c6d1da602a70ac34f0b147&units=imperial",
                    "method": "GET"
                }

                $.ajax(settings)

                .done(function (response) {
                    console.log(response);

                $("#wind_speed").append (response.wind.speed);
                $("#wind_direction").append (response.wind.deg);
                $("#main_temp").append (response.main.temp);
                $("#weather_conditions").append (response.weather[0].main);
                $("#wind_speed_unit").append (" MPH");
                $("#wind_degree_unit").append (" degrees");
                $("#main_temp_unit").append (" F");
                });
            }
        </script>
        <button type="button" onclick="checkWind()" class="btn btn-danger weatherbutton">Check wind conditions</button>
        <h2>Wind conditions for Wylie</h2>
        <span><b>Temperature: </b></span><span id="main_temp"></span><span id="main_temp_unit"></span><br/>
        <span><b>Wind speed: </b></span><span id="wind_speed"></span> <span id="wind_speed_unit"></span><br/>
        <span><b>Wind direction: </b></span><span id="wind_direction"></span><span id="wind_degree_unit"></span><br/>
        <span><b>Current conditions: </b></span><span id="weather_conditions"></span>
    </body>
</html>
```
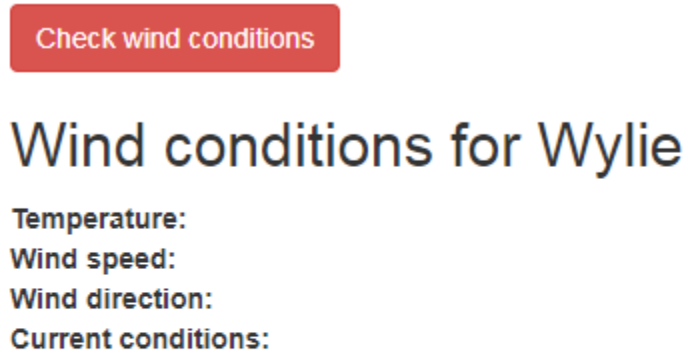
When you open the browser and run the HTML file, the below page is loaded.

Check wind conditions

Wind conditions for Wylie

Temperature:
Wind speed:
Wind direction:
Current conditions:

Fig: Before button click of Check wind conditions

Check wind conditions

Wind conditions for Wylie

Temperature: 48.76 F
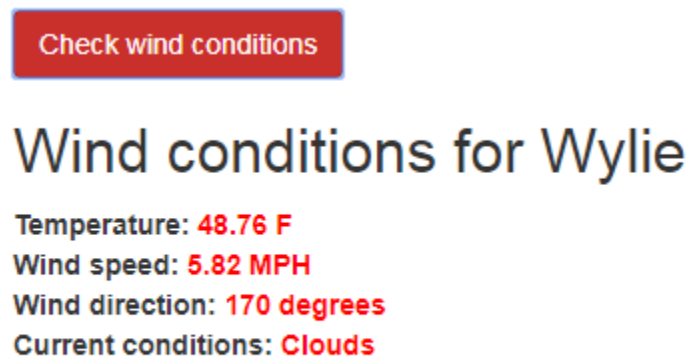**Wind speed:** 5.82 MPH
Wind direction: 170 degrees
Current conditions: Clouds

Fig: After click of the button