

Final Project: Weather Site



Paul Cheney

SPARTAN DESIGN UNIVERSITY

spartandesignuniversity.com



Agenda



Obtain your API key

Look at the API documentation

Configure two URL's

Build the app

Test the page

Modification



Get Your API Key



Weather Forecast & Reports - x

Secure https://www.wunderground.com

Business Web Syllabi BYUI Study Conferences Retirement Movies Learn This Stuff Articles VR Clipart Pluralsight Google Trailers Textures uvu Directory Medical Savings HOA Comet Other Bookmarks

Spring Lake, UT

Log in | Join

Popular Cities

29.5 °F

New York, NY

55 °F

London, UK

29.8 °F

Chicago, IL

35.3 °F

Boston, MA

69.8 °F

Houston, TX

77.5 °F

San Francisco, CA

72 °F

Feels like 72°

63° | 42°

0%

44°

12AM

Mar 14

39°

6AM

36°

6AM

48°

NOON

MDT

62°

6PM

71°

6PM

50°

12AM

Mar 15

49°

12AM

Mar 15

Full Forecast

Major Late-Winter Storm Pummeling Northeast with Heavy Snow, High Wind

A late-season nor'easter has been socking areas just inland from the I-95 corridor with very heavy snow, while coastal cities deal with a messy wintry mix. Blizzard warnings remained in effect early Tuesday afternoon for parts of New England as well as eastern NY and PA.

- Follow Us on Twitter for Up-To-The-Minute Coverage
- Download Storm to track severe weather on your mobile device.

Track Your Weather

Regional Radar

Regional Severe Weather

More Maps

Get Your Daily Forecast Email!

Location

Email

Subscribe

























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https://www.wunderground.com/signup


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WEATHER UNDERGROUND


Maps & Radar Severe Weather News & Blogs Photos & Video More


Search Locations 


Log in | Join 

★ Popular Cities

Tenderloin, NY
39.4 °F Mostly Cloudy

London, United Kingdom
50 °F Scattered Clouds

Chicago, IL
29.1 °F Scattered Clouds

Houston, TX
63.1 °F Clear

Join Weather Underground

- Get the most accurate hyperlocal weather
- Real-time alerts for your city
- Add your webcam or personal weather station

Email

paul.cheney@uvu.edu

✓

Password [5-30 characters] [Show](#)

.....

✓

Looks good, let's go!

☒ I agree to the [Terms of Service](#)

☐ I would like to receive WU updates via email

Sign up for free




Sign Up | Weather Underground X

Paul

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WEATHER Maps & Radar Severe Weather News & Blogs Photos & Video More Search Locations Log in | Join



WELCOME, !

You are now an official Weather Underground member.

Weather Alerts

Stay informed of weather events through your phone or email for up to 10 locations

[Setup Your Alerts](#)

Personal Weather Stations (PWS)

Join our network of 200,000+ personal weather stations and start sharing your weather.

[Learn More About PWS](#)

Upgrade to Premium for an AD FREE Weather Underground Experience

Upgrade Me!

Sign up for free

Thank you for joining Weather Underground!

Follow this URL to activate your membership:

Validate Your Email

Or, you can copy and paste this URL in your browser:

<http://www.wunderground.com/member/validate?email=paul.cheney@uvu.edu&auth=357363&redirect=1>

Weather Underground Features

[NEXRAD Radar](#) | [U.S. Severe Weather](#) | [Weather Webcams](#) | [WunderPhotos](#)

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wunderground.com | 300 Interstate North Parkway, Atlanta, GA 30339



Weather Forecast & Reports - X

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Spring Lake, UT

My Profile

Settings Maps & Radar Severe Weather News & Blogs Photos & Video Historical Weather Activities Site Map Buy a Weather Station Add Weather Station Weather Station Network Mobile Apps Weather API for Developers

29.5 °F New York, NY 55 °F London, UK 28.4 °F Chicago, IL 36.3 °F Boston, MA 71 °F Houston, TX 76.8 °F San Francisco, CA

72 °F
Feels like 72°

72° | 42°
0%

44° 39° 36° 48° 62° 71° 62° 51° 49°
12AM 6AM NOON 6PM 12AM
Mar 14 MDT Mar 15

Full Forecast

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[Follow Us on Twitter for Up-To-The-Minute Coverage](#)

[Download Storm to track severe weather on your mobile device.](#)



Track Your Weather

[More Maps](#)



Get Your Daily Forecast Email!

Location

javascript:void(0);

A WEATHER API DESIGNED FOR DEVELOPERS

[API Home](#) [Pricing](#) [Featured Applications](#) [Documentation](#) [Forums](#)

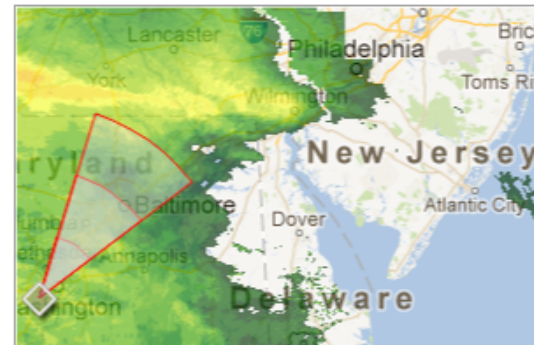
Reliable data, accurate forecast, & global coverage in 80 languages. [About Our API](#)

Key Features

- JSON or XML formatted ?
- Easy key management
- Error-logging tools
- Rate-monitoring tools
- Complete geo location service
- Autocomplete API to power geo-search
- Worldwide weather stations network ?

Explore My Options

WunderMap Layers ?



API | Weather Underground

Paul

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https://www.wunderground.com/weather/api/d/pricing.html

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WEATHER
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Sign Out

GET YOUR API KEY

API Home

Pricing

Featured Applications

Documentation

Forums

Customize a plan that suits your needs:

TOTAL: \$0 USD per month

Purchase Key >>

● STRATUS PLAN	● CUMULUS PLAN	● ANVIL PLAN
<div>Geolookup</div> <div>Autocomplete</div> <div>Current conditions</div> <div>3-day forecast summary</div> <div>Astronomy</div> <div>Almanac for today</div>	<div>Geolookup</div> <div>Autocomplete</div> <div>Current conditions</div> <div>3-day forecast summary</div> <div>Astronomy</div> <div>Almanac for today</div>	<div>Geolookup</div> <div>Autocomplete</div> <div>Current conditions</div> <div>3-day forecast summary</div> <div>Astronomy</div> <div>Almanac for today</div>
	<div>10-day forecast summary</div> <div>Hourly 1-day forecast</div> <div>Satellite thumbnail</div> <div>Dynamic Radar image</div> <div>Severe alerts</div> <div>Tides and Currents</div> <div>Tides and Currents Raw</div> <div>Severe alerts</div>	<div>10-day forecast summary</div> <div>Hourly 1-day forecast</div> <div>Satellite thumbnail</div> <div>Dynamic Radar image</div> <div>Severe alerts</div> <div>Tides and Currents</div> <div>Tides and Currents Raw</div> <div>Severe alerts</div>
		<div>Hourly 10-day forecast</div> <div>Yesterday's weather summary</div> <div>Travel Planner</div> <div>Webcams thumbnails</div> <div>Dynamic animated Radar image</div> <div>Dynamic animated Satellite image</div>

ALMOST THERE...

[API Home](#)[Pricing](#)[Featured Applications](#)[Documentation](#)[Forums](#)

Please complete the following questions to receive your API Key:

*All fields are required

Contact Name

Paul Cheney

Project Contact Email

paul.cheney@uvu.edu

Project Name

Pluralsight Project

Project Website

sandbox.spartandesignweb.com

Where will the API be used?

☒ Website ☐ Mobile ☐ Both ☐ Other

Will the API be used for commercial use?

☐ Yes ☒ No

Will the API be used for manufacturing mobile chip processing?

☐ Yes ☒ No

What country are you or your company based in?

United States

Please give a brief description of how you will be using our API

255 character max length (197 remaining characters...)

Building a JSON based weather app for a PluralSight Course

☒ I understand that usage of the Weather Underground API requires proper attribution

☒ I agree to the [Terms of Service](#)

Purchase Key »





GET YOUR API KEY

[Analytics](#)[Key Settings](#)[Featured Applications](#)[Documentation](#)[Forums](#)

Select a Key to Customize

c492cda67fd210ae - Pluralsight Project ▾



Success!

You have successfully subscribed to billing plan: Stratus Developer

Edit API Key

Key ID

c492cda67fd210ae

Project Name

Pluralsight Project

Company Website

sandbox.spartandesignweb.com

Contact Phone

Contact Email

paul.cheney@uvu.edu

Update »

[Create a New Key](#)

Regenerate API Key

Has your key been compromised? You can generate a new key.

Consequences

- You will need to change your apps to use the new key.
- Your statistics will be reset.
- This action cannot be undone.

☐ I understand the consequences.

Regenerate Key »

Billing Information

View your billing information:

- Modify
- Upgrade
- Downgrade
- Cancel

View Billing »

Customize a plan that suits your needs:

TOTAL: \$0 USD per month

[Purchase Key »](#)

● STRATUS PLAN

Geolookup
Autocomplete

● CUMULUS PLAN

Geolookup
Autocomplete

● ANVIL PLAN

Geolookup
Autocomplete

Documentation



API | Weather UndergroundWeather Forecast & Reports - x

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WEATHER UNDERGROUND

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Popular Cities

New York, NY40.5 °F Mostly Cloudy

London, UK50 °F Clear

Chicago, IL29.3 °F Scattered Clouds

Search Locations

My Profile

Find Your Nearest Weather Station

Search Map

Go To WunderMap

Mapbox

35°

40°

37°

39°

35°

Genola

Rocky Ridge

Track Your Weather

Map

Map

Photos & Video>

Activities>

Historical Weather

Personal Weather Station Network

Register Your PWS

WU Store

Mobile Apps

Daily Forecast Flyer

Weather API for Developers

Site Map

WunderPhotos

Webcams

Videos

WUTV

lake, UT

49° | 31°

10%

26° 24° 30° 46° 47° 38° 34° 34°

12AM Mar 36AMNOON MST6PM12AM Mar 4

Full Forecast

"THE BOOK THAT SAVES THE WORLD"

"Science's holy grail of insight. All the truth up in one go. Chapter 1 alone will transform you." Professor Harry Prosen

Download for FREE!

Completely FREE, no registration required.

Get Your Daily Forecast Email!

Location

Email

https://www.wunderground.com/weather/api/



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Weather ▾ Maps & Radar ▾ Severe Weather ▾ Photos & Video ▾ Community ▾ News ▾ More ▾

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ANALYTICS

Analytics Key Settings Featured Applications Documentation Forums

Monthly Statistics for c492cda67fd210ae

« Previous Month March 2017 Next Month »

JSON XML GIF PNG SWF

Calls (total per day)

Max rate (queries per minute) per day:

c492cda67fd210ae - Pluralsight Project ▾

Raindrops

Total:

Available: 3

Used (ever): 0

Date	Reason	Description
No raindrops have been used this month.		

What is a Raindrop?

We know that you will occasionally go over your limit. Thats OK! Raindrops are 'credits' that can be used to cover overages of use to avoid pesky 'denial of service' responses. We've given you 3 Raindrops to start and every week we will give you one more. If you go over your rate limit then a Raindrop will cover the overage. Review the Terms of Service for more details.

Be part of our Raindrops Rewards program.

Every time your application generates 2500 clicks to www.wunderground.com we will gift you a Raindrop. Once you acquire enough raindrops you can then lower your service level to reduce your cost to access our data. Simply link to [wunderground.com](https://www.wunderground.com) using your unique referral key as the 'apiref' query string parameter:

What is my referral URL?

<https://www.wunderground.com/?apiref=5b8ee10ff354b259>

https://www.wunderground.com/weather/api/d/docs



API: Conditions

The screenshot shows a web browser window with two tabs, both titled 'API | Weather Underground'. The address bar shows the URL <https://www.wunderground.com/weather/api/d/docs?d=data/conditions>. The browser's bookmark bar includes folders for Business, Web, Syllabi, BYUi, Study, Conferences, Retirement, Movies, Learn This Stuff, Articles, VR, Clipart, and Other Bookmarks. The website's navigation bar is dark blue with the 'wu' logo and links for Weather, Maps & Radar, Severe Weather, Photos & Video, Community, News, and More. A 'Sign Out' button is also present. Below the navigation bar is a light blue 'DOCUMENTATION' header. A horizontal menu contains links for Analytics, Key Settings, Featured Applications, Documentation (which is active), and Forums. On the left, an 'API Table of Contents' sidebar lists various API features, with 'conditions' highlighted in yellow. The main content area is titled 'Feature: conditions' and describes the feature as returning current temperature, weather condition, humidity, wind, 'feels like' temperature, barometric pressure, and visibility. Below this, a section titled 'Response Fields' lists the following fields: image.url, image.title, image.link, display_location.full, display_location.city, display_location.state, display_location.state_name, and display_location.country. A 'Page Contents' sidebar on the right lists 'Feature: conditions', 'Response Fields', and 'Examples'. The browser's status bar at the bottom shows the same URL.

API | Weather Underground x API | Weather Underground x Paul

Secure <https://www.wunderground.com/weather/api/d/docs?d=data/conditions>

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DOCUMENTATION

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API Table of Contents

- Weather API
 - WunderMap Layers
 - Radar
 - Satellite
 - Radar + Satellite
 - Data Features
 - alerts
 - almanac
 - astronomy
 - conditions**
 - currenthurricane
 - forecast
 - forecast10day
 - geolookup
 - history
 - hourly
 - hourly10day
 - planner
 - rawtide
 - satellite
 - tide
 - webcams

Feature: conditions

Returns the current temperature, weather condition, humidity, wind, 'feels like' temperature, barometric pressure, and visibility.

Response Fields

- image.url
- image.title
- image.link
- display_location.full
- display_location.city
- display_location.state
- display_location.state_name
- display_location.country

Page Contents

- Feature: conditions
- Response Fields
- Examples

<https://www.wunderground.com/weather/api/d/docs?d=data/conditions>



Examples

Try with **api**gee

`http://api.wunderground.com/api/c492cda67fd210ae/conditions/q/CA/San_Francisco.json`

[Hide Response](#)

```
{
  "response": {
    "version": "0.1",
    "termsofService": "http://www.wunderground.com/weather/api/d/terms.html",
    "features": {
      "conditions": 1
    }
  },
  "current_observation": {
    "image": {
      "url": "http://icons-ak.wxug.com/graphics/wu2/logo_130x80.png",
      "title": "Weather Underground",
      "link": "http://www.wunderground.com"
    },
    "display_location": {
      "full": "San Francisco, CA",
      "city": "San Francisco",
      "state": "CA",
      "state_name": "California",
      "country": "US",
      "country_iso3166": "US".
    }
  }
}
```



API:

The screenshot shows a web browser window with two tabs, both titled "API | Weather Underground". The address bar shows the URL "https://www.wunderground.com/weather/api/d/docs?d=data/forecast". The browser's bookmark bar includes "Business", "Web", "Syllabi", "BYUi", "Study", "Conferences", "Retirement", "Movies", "Learn This Stuff", "Articles", "VR", "Clipart", and "Other Bookmarks". The website's navigation bar is blue and contains the "wU WEATHER UNDERGROUND" logo, links for "Weather", "Maps & Radar", "Severe Weather", "Photos & Video", "Community", "News", and "More", along with a star icon, a magnifying glass, and a "Sign Out" button. Below the navigation bar is a light blue banner with the word "DOCUMENTATION". Underneath the banner is a horizontal menu with "Analytics", "Key Settings", "Featured Applications", "Documentation" (which is active), and "Forums". The main content area is divided into three sections. On the left is the "API Table of Contents" with a tree structure: "Weather API" (expanded) contains "WunderMap Layers" (with sub-items "Radar", "Satellite", "Radar + Satellite") and "Data Features" (with sub-items "alerts", "almanac", "astronomy", "conditions", "currenthurricane", "forecast" (highlighted in yellow), "forecast10day", "geolookup", "history", "hourly", "hourly10day", "planner", "rawtide", "satellite", "tide", and "webcams"). The middle section is titled "Feature: forecast" and contains the text "Returns a summary of the weather for the next 3 days. This includes high and low temperatures, a string text forecast and the conditions." Below this is the heading "Response Fields" and the label "txt_forecast: forecastday". A table lists the response fields: "period", "icon", "icon_url", "title", "fctext", "fcttext_metric", and "pop". On the right is the "Page Contents" section with a list of links: "Feature: forecast", "Response Fields", "txt_forecast: forecastday", "simpleforecast: forecastday", "Examples", and "Forecast for San Francisco, California".

API | Weather Underground x API | Weather Underground x Paul

Secure https://www.wunderground.com/weather/api/d/docs?d=data/forecast

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wU WEATHER UNDERGROUND Weather Maps & Radar Severe Weather Photos & Video Community News More Sign Out

DOCUMENTATION

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 - forecast**
 - forecast10day
 - geolookup
 - history
 - hourly
 - hourly10day
 - planner
 - rawtide
 - satellite
 - tide
 - webcams

Feature: forecast

Returns a summary of the weather for the next 3 days. This includes high and low temperatures, a string text forecast and the conditions.

Response Fields

txt_forecast: forecastday

period
icon
icon_url
title
fctext
fcttext_metric
pop

Page Contents

- Feature: forecast
- Response Fields
- txt_forecast: forecastday
- simpleforecast: forecastday
- Examples
 - Forecast for San Francisco, California



Examples

Try with **api**gee

Forecast for San Francisco, California

`http://api.wunderground.com/api/c492cda67fd210ae/forecast/q/CA/San_Francisco.json`

[Hide Response](#)

```
{
  "response": {
    "version": "0.1",
    "termsOfService": "http://www.wunderground.com/weather/api/d/terms.html",
    "features": {
      "forecast": 1
    }
  },
  "forecast": {
    "txt_forecast": {
      "date": "2:00 PM PDT",
      "forecastday": [{
        "period": 0,
        "icon": "partlycloudy",
        "icon_url": "http://icons-ak.wxug.com/i/c/k/partlycloudy.gif",
        "title": "Tuesday",
        "fcttext": "Partly cloudy in the morning, then clear. High of 68F. Breezy. Winds from the W",
        "fcttext_metric": "Partly cloudy in the morning, then clear. High of 20C. Windy. Winds from",
        "pop": "0"
      }], {
        "period": 1.
```



API | Weather Underground

API | Weather Underground

Paul

Secure

https://www.wunderground.com/weather/api/d/docs?d=data/geolookup

☆

Business

Web

Syllabi

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Study

Conferences

Retire

WU WEATHER UNDERGROUND

Weather

Maps & Radar

Severe Weather

DOCUMENTATION

Analytics

Key Settings

Featured Applications

Documentation

F

API Table of Contents

Weather API

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 - geolookup**
 - history
 - hourly
 - hourly10day
 - planner
 - rawtide
 - satellite
 - tide
 - webcams

Examples

City within the USA

```
http://api.wunderground.com/api/c492cda67fd210ae/geolookup/q/CA/San_Francisco.json
```

City outside of the USA

```
http://api.wunderground.com/api/c492cda67fd210ae/geolookup/q/France/Paris.json
```

AutolP Address Location

```
http://api.wunderground.com/api/c492cda67fd210ae/geolookup/q/autoip.json
```

Zip or Postal Code

```
http://api.wunderground.com/api/c492cda67fd210ae/geolookup/q/94107.json
```

Airport Code

```
http://api.wunderground.com/api/c492cda67fd210ae/geolookup/q/SFO.json
```

Feature: geolookup

Returns the city name, zip code / postal code, and nearby personal weather stations.

Response Fields

Location
type
country
country_iso3166
country_name
state
city
tz_short
tz_long



URL's Needed for JSON Data

URL for Conditions

<http://api.wunderground.com/api/c492cda67fd210ae/conditions/q/84653.json>

URL for Forecast

<http://api.wunderground.com/api/c492cda67fd210ae/forecast/q/84653.json>



AJAX Request



```
myObj.open('GET', 'http://api.wunderground.com/api/f029e46fd0232d12/forecast/q/84653.json', true);
```

```
myObj.responseText = 'text'; // coming as a string
```

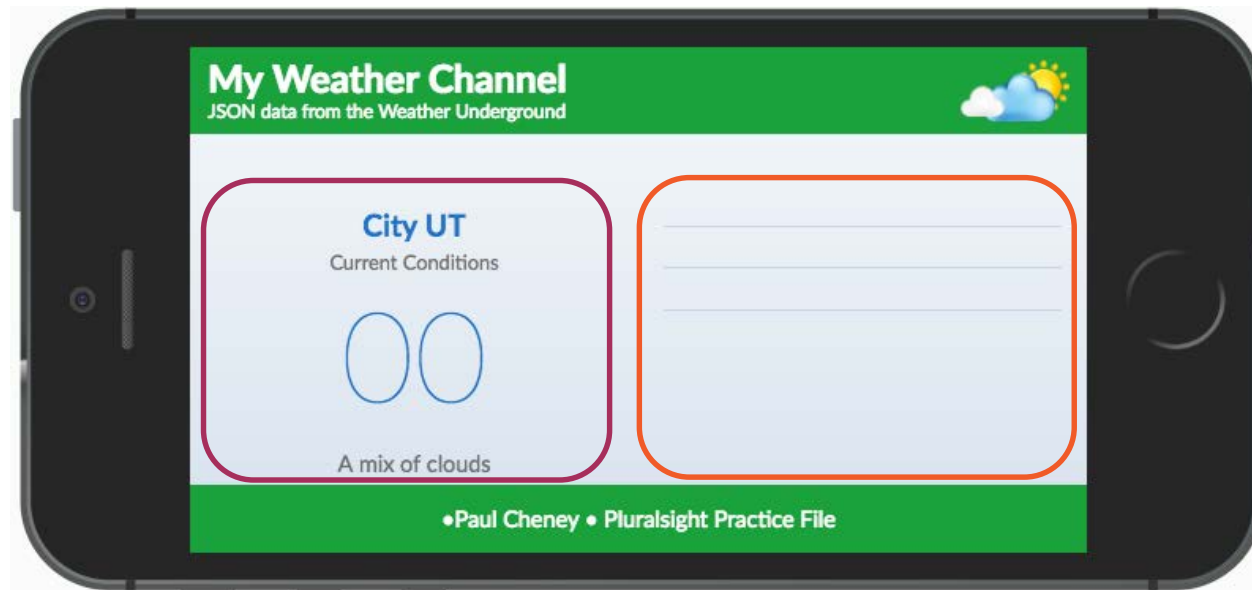
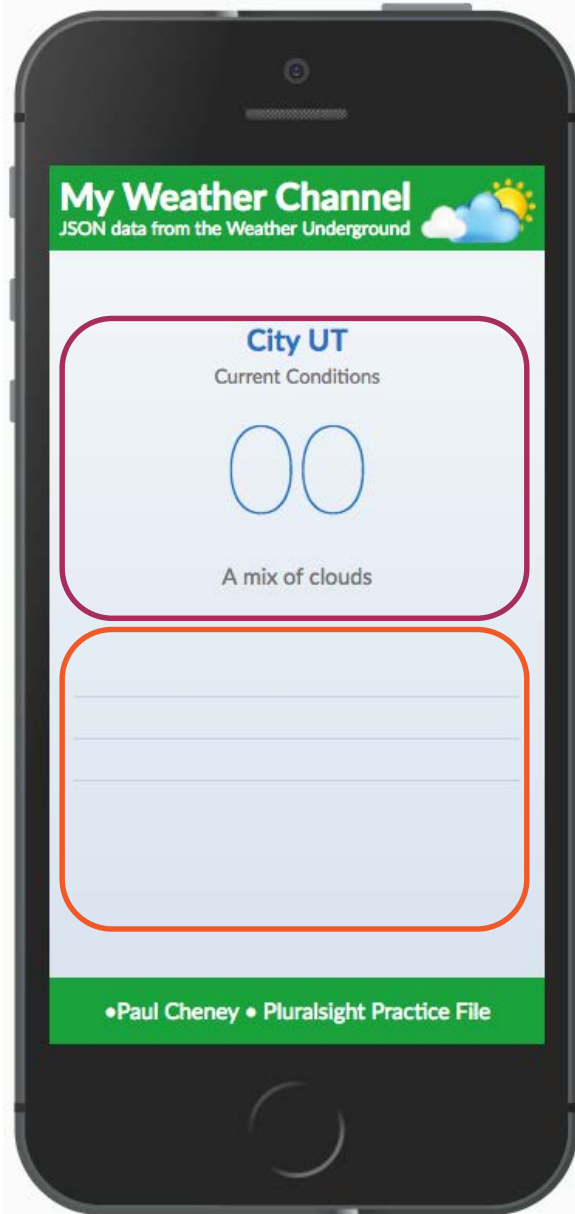
```
myObj.send();
```

```
myObj.onload = function() {  
  if (myObj.status === 200){  
    x = JSON.parse(myObj.responseText);  
    console.log(x);  
  } //end if  
}; //end function
```

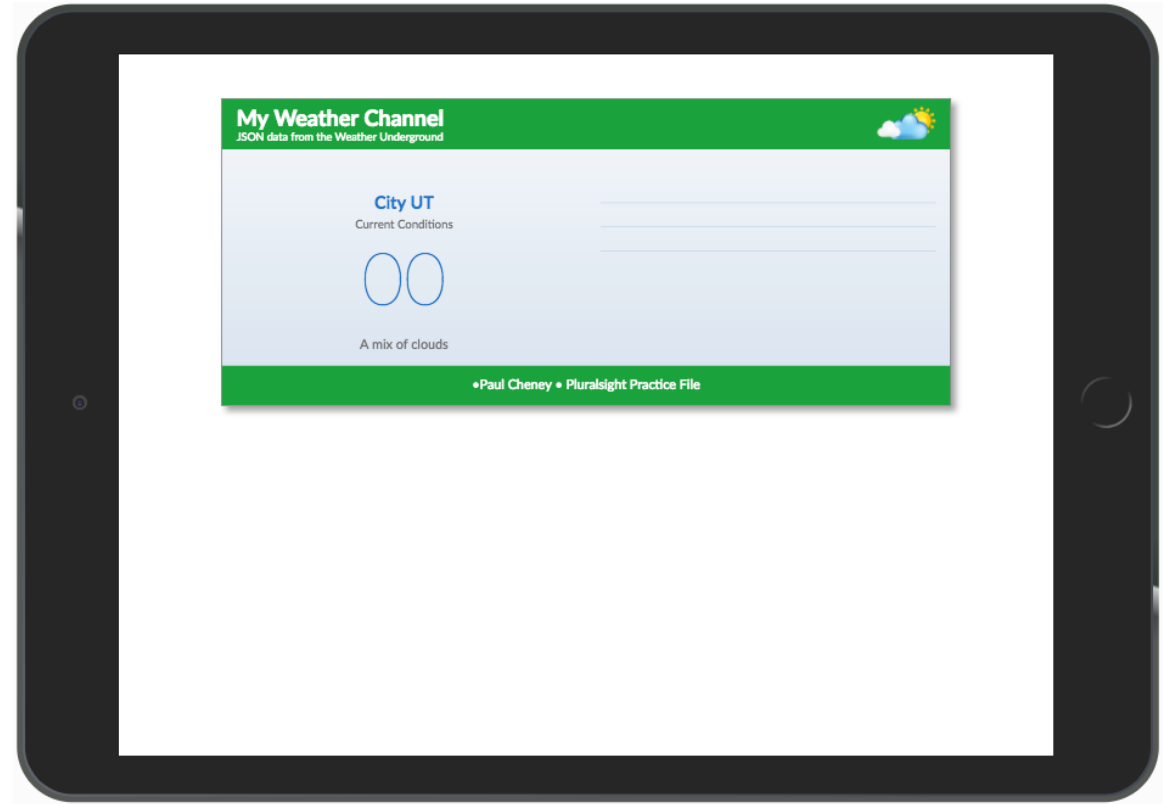


Small Screen Demo

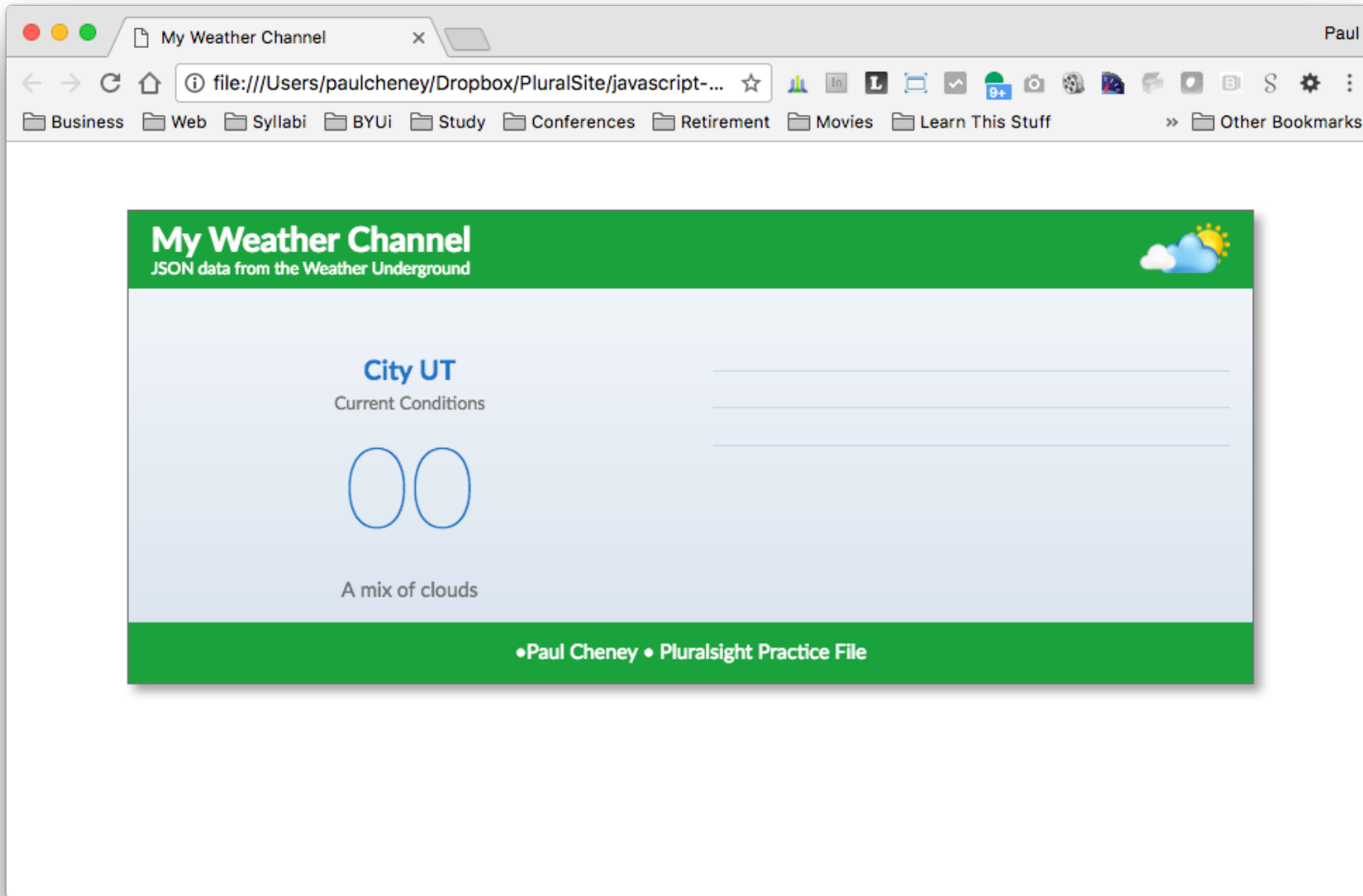
- css ✓ ▶
- icon ✓ ▶
- images ✓ ▶
- index.html ✓
- js ✓ ▶



Medium Screen Demo



Large Screen Demo



My Weather Channel

JSON data from the Weather Underground



83127

Check this Zipcode

Thayne, WY

Mostly Cloudy

40°

Partly cloudy. Lows overnight in the low 20s.

Saturday



41°

25°

Sunday



37°

13°

Monday



22°

16°

•Paul Cheney • Pluralsight Practice File



Summary



Obtain your API key

Look at the API documentation

Configure two URLs

Build the app

Test the page

Modification

