Get yourself up and running!

First you'll need a Raspberry Pi. Any Pi will do but a Pi 0 is pretty slooooo w. Price is right at about USD $15 though. Get it going, load up Pi OS and get yourself familiar with the environment. Pi OS is a debian linux variant. You will need to know how to open up a terminal prompt and also how find out and modify your Pi's IP address at the very least. After you make it this far, you might want to jump down to the "What if I already have a server" section below, read through it then decide which way works better for you.

Next, download my customized image (latest Pi OS with Git/Node components installed along with weathersite bits) from OneDrive:

https://1drv.ms/u/s!Auzn1vVcq494o3r2zG54O7OTcsHa?e=t8QNFz

Next, flash the image to an SD card that's at least 6GB in size. Any number of tools can be used to do this:

Win32DiskImager is here: https://sourceforge.net/projects/win32diskimager/files/latest/download
Balena Etcher (my fav) is here: https://www.balena.io/etcher/

once it is flashed, boot your Pi from the SD image and the familiar Pi desktop should appear.
now change your Pi's network address to the one you will use. Its currently set to 10.0.0.51.

Very important!

Now get the most current weathersite bits. Open up a terminal window and execute the following commands:

```
sudo su
cd /weathersite
git pull origin master
```

This will update the weathersite code to the latest version which can support no METAR or RADAR information without crashing.

Customize weathersite for your location

next you have to make some changes to /weathersite/app.js:
edit it on the Pi with the editor of your choice and change
myLatitude, myLongitude, and myWLLIp to your values.
site conditions and Radar are coded for milwaukee WI currently so you will want to disable the capabilities by changing the following variable values to "":

myMetarFtpSite
myMetarfilePath
myRadarZoominPath
myRadarZoomoutPath

Or in North America, you can change them to your local sites as described below.

Finally, to fire up weathersite, open up a terminal window, switch to the weathersite directory, become the superuser so that node can save history to local storage, and launch the website:

sudo su
cd /weathersite
node app.js

Your weathersite is now running on port 5000! you can access it on your network from any browser.

Connect to http://<Raspberrry Pi IP address>:5000

North America based additional instructions

Enable sky conditions and radar site values by filling in your local information.

To enable radar data:
go to https://radar.weather.gov and select your closest site from the Continent map. It will bring up a live view of your local radar. In the top of that view, take note of your three character radar site designator. The display shows "Image from:" followed by this.
now change the zoomin and zoomout variables in app.js by replacing "MKX" with your three character designator.
Now restart node if it is running (hit <ctrl C> on the node window to exit then rerun "node app.js" command).
boom! Radar data is activated.

Enabling Metar data is the same. Find the four character designator for your closest Metar site and replace "KMKE" in myMetarFilePath with that designator. Now restart node if it is running (hit <ctrl C> on the node window to exit then rerun "node app.js" command).

boom! Sky conditions are activated.

note: its a good idea to make sure that the observation text file for your metar station is properly stored at the ftp site. To check, try to manually download the observation file first by using the full URL in your browser:
ftp://tgftp.nws.noaa.gov/data/observations/metar/stations/<your metar station id in all caps>.TXT. If its there, a single line text file describing your station's current observation will be downloaded. Or you can just click the highlighted link to see a listing of all the observation files, then search for yours there.

ToDo for you: Change your Pi so that the command "node app.js" is launched automatically when the Pi is booted.

What if I already have a computer to use as the server?

You will need to install Node.js and Git utilities. Versions can be found here:
GIT: https://git-scm.com/downloads
NodeJS: https://nodejs.org/en/download/

If your computer is already a Pi, then starting here is probably a better way to get up and running. On a Pi, GIT is pre-installed and all you will need to do is get nodeJS. do this with apt in a terminal window:
sudo su
apt-get update
apt-get install nodejs

now for whatever computer you are using, pull down the weathersite bits:

in a terminal window if Linux or command prompt if Windows, switch to your root directory then type:

git clone https://github.com/sleuth255/weathersite

The bits will be downloaded to a weathersite directory under the root.
Now continue above at "customize weathersite for your location"