Description of Daily Weather Dataset

This reading describes the daily weather dataset used in the hands-on activities in this course.

The file **daily_weather.csv** is a comma-separated file that contains weather data. This data comes from a weather station located in San Diego, California. The weather station is equipped with sensors that capture weather-related measurements such as air temperature, air pressure, and relative humidity. Data was collected for a period of three years, from September 2011 to September 2014, to ensure that sufficient data for different seasons and weather conditions is captured.

Sensor measurements from the weather station were captured at one-minute intervals. These measurements were then processed to generate values to describe daily weather. Since this dataset was created to classify low-humidity days vs. non-low-humidity days (that is, days with normal or high humidity), the variables included are weather measurements in the morning, with one measurement, namely relatively humidity, in the afternoon. The idea is to use the morning weather values to predict whether the day will be low-humidity or not based on the afternoon measurement of relatively humidity.

Each row in daily_weather.csv captures weather data for a separate day. Each row, or sample, consists of the following variables:

Variable	Description	Unit of Measure
number	unique number for each row	NA
air_pressure_9am	air pressure averaged over a period from 8:50am to 9:10am	hectopascals
air_temp_9am	air temperature averaged over a period from 8:50am to 9:10am	degrees Fahrenheit

avg_wind_direction_9am	wind direction averaged over a period from 8:50am to 9:10am	degrees, with 0 means coming from the North, and increasing clockwise
avg_wind_speed_9am	wind speed averaged over a period from 8:50am to 9:10am	miles per hour
max_wind_direction_9am	wind gust direction averaged over a period from 8:50am to 9:10am	degrees, with 0 being North and increasing clockwise
max_wind_speed_9am	wind gust speed averaged over a period from 8:50am to 9:10am	miles per hour
rain_accumulation_9am	amount of accumulated rain averaged over a period from 8:50am to 9:10am	millimeters
rain_duration_9am	amount of time raining averaged over a period from 8:50am to 9:10am	seconds
relative_humidity_9am	relative humidity averaged over a period from 8:50am to 9:10am	percent
relative_humidity_3pm	relative humidity averaged over a period from 2:50pm to 3:10pm	percent