

< Weekly Challenge

Challenge #101: The Search for Powder



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After a few good snowstorms here in Colorado, snow aficionados have an important question on their minds: where's the freshest powder on the slopes? Well, at least that's the question on @ChristineB's mind! This week, we're using Alteryx to figure out the best place to ski (or snowboard, if you're into that sort of thing) in Colorado.

The National Water and Climate Center manages a network of sensors, SNOTEL, that collect data all about snow. The SNOTEL sensors collect historical data (condensed into daily data) on variables such as temperature, snow water equivalent values, and precipitation increments. We'll use the variable Precipitation Increment (in) as our measurement of recent snowfall. Using the past seven days worth of data, in conjunction with the shapefiles for Colorado's ski resorts, we'll identify the sensor that has recorded the highest amount of precipitation accumulation and the closest ski resort to that sensor.

Download the SNOTEL data from each sensor in Colorado using the following link: https://wcc.sc.egov.usda.gov/reportGenerator/view_csv/customSingleStationReport/daily/303:CO-SNTL%7C..., Each sensor's data must be downloaded separately. A list of the sensors site number (i.e., 303 in the above link, which is provided in the Input URL for Data from SNOTEL) is provided in the input SNOTEL Sensor Sites. To access the SNOTEL site for each sensor download, see this site: https://wcc.sc.egov.usda.gov/nwcc/tabget?state=CO. That will give you an idea as to how the data is accessed through the SNOTEL platform.

NOTE: Because data is dynamic, the final solution will change depending on when the data is downloaded. This solution is correct as of 1/23/18.





