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function [regionName, stateNames, associatedLatitude, associatedLongitude, fuelsChosen,
regionAndFuel] = filterMyData(raw)
%FILTERMYDATA
%[regionName, stateNames, associatedLatitude, associatedLongitude,
%fuelsChosen, regionAndFuel] = filterMyData(raw);
%
%This functions purpose is to take the argument of a raw data table from an
%excel sheet and filter it based on user inputs of the region and fuel. The
%function then returns the region name selected, the state names in that
%region, the latitudes and longitudes associated with the states, the fuel
%chosen by the user, and the fuel vs region in a matrix.
%
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%Section 06

%Extract Fuel Names
fuelNames = raw(2, 7:end);

%Cleanup Table
raw(1:2, :) = [];

%User makes a region choice based on unique regions.
possibleRegions = unique(raw(:,6));
regionSelection = listdlg('ListString', possibleRegions, 'PromptString', 'Select a
region', ...
    'SelectionMode', 'single');

%extraction of region selected
regionName = possibleRegions(regionSelection);
trueFalse_regionName = strcmp(raw(:,6), regionName);

%extract information from those "true rows" from the raw data and the corresponding
column
associatedLatitude = cell2mat(raw(trueFalse_regionName,4));
associatedLongitude = cell2mat(raw(trueFalse_regionName,5));
stateNames = raw(trueFalse_regionName,1);

%Cleanup Table again
raw(:,1:6) = [];

%User makes fuel choice.
fuelSelection = listdlg('ListString', fuelNames, 'PromptString', 'Select a Fuel');
fuelsChosen = fuelNames(fuelSelection);

%extract fuels for selected region
regionAndFuel = raw(trueFalse_regionName, fuelSelection);

%[~,~,raw] = xlsread('2009_RenewableEnergy_v02.xlsx');
%
%[regionName, stateNames, associatedLatitude, associatedLongitude,
%fuelsChosen, regionAndFuel] = filterMyData(raw);

```