Python Exercise
Python and Matlab

June 30, 2015

1 Load and save a struct/ dict

1. Load the file data1.mat in Python. Use .dtype to figure out what is stored in the numpy array.
2. Visualize the stored data.
3. Save the data as a struct for Matlab. This can be done by packing the data in a dictionary and saving the dictionary into a *.mat file.

2 Load and save cell/ list or object array

1. Load the file data2.mat in Python.
2. Visualize the stored data.
3. Save the data as a cell for Matlab. This can be done by creating an numpy object array (np.zero((*length*,),dtype=np.object)) from the data and saving it into a *.mat file.

Check if it worked by: (i) open a terminal in the folder where the new file was saved and copy test_data.m to that path (ii) run octave and then (iii) run test_data(*filename*)

Help functions: scipy.io.loadmat(*filename*), scipy.io.savemat(*filename*,{ *'variableKey1': variable1, 'variableKey2': variable2*}), matplotlib.pylab.plot

See also: `http://docs.scipy.org/doc/scipy/reference/tutorial/io.html`