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1 Mcs 260, Lowman, Week 2 Lab
2 =====
3 Purpose: get a quick overview of the python programming language.
4 How: Use the python web tutorial "Learn python in 10 minutes"
5 Note: In all of the instructions below, replace XXX with your three
6 digit mcs260 classid.
7
8 Lab instructions:
9 =====
10
11 Part 1: Setup
12 -----
13
14 1. On raphael.math.uic.edu create a directory named:
15 "260w2labXXXLastname" replace
16 Lastname with your last name. Use all lowercase letters except for the
17 first letter of your last
18 name and no spaces. cd into the directory. All of your lab work will be
19 inside this directory.
20
21 2. Create a file named README (not README.txt, not Readme.txt, etc. but
22 just README). Inside the
23 file README include on seperate lines: your name, the course name, date,
24 TAs name, lab description and any
25 other important information that would be useful if read your README one
26 year from now. Finally,
27 include a few sentences describing the lab.
28
29 3. Now create five more directories, each corresponding to a section of
30 the tutorial "Learn
31 Python in 10 Minutes". Use these names for the directories:
32
33 Syntax
34 DataTypes
35 Strings
36 FlowControl
37 Functions
38 -----Optional Directories (i.e. create eleven directories)-----
39 Classes
40 Exceptions
41 Importing
42 FileIO
43 ListComprehensions
44 GlobalVariables
45
46 4. cd into the directory Syntax and create an empty file named syntax.py
47 (all lower case letters).
48 On unix, this is easily done using the "touch" command.
49 >> touch syntax.py
50 Repeat this inside each directory. i.e.
51 cd into the directory DataTypes and
52 >> touch datatypes.py
53 ...
54
55 This will set everything up for the rest of the lab.
56
57
58
59 Part 2: Learning Python in 10 Minutes -- First Try, using the
60 interpreter
61 -----
62 --
63
64 Find python tutorial by googling "python in 10 minutes". You should
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65 find it at
66 http://www.korokithakis.net/tutorials/python.
67
68 Start by using the python interpreter (python or ipython) to work
69 through the tutorial:
70 --Start the python interpreter (enter ipython at the command line. i.e.
71 >> ipython).
72 --In the section Syntax: enter the code in the code block at the
73 interpreter prompt >>> and learn
74 python by doing.
75 --Once you have a sense of how to work through the tutorial using the
76 python interpreter, stop!
77 --exit the interpreter by entering Cntrl-D (end of file on unix)
78 --The lab exercise is to execute all of the lines in each code block.
79 However, instead of using
80 the interpreter, you will make a python program for each section. The
81 program can then be run
82 to show your work. The empty .py files that you created in each
83 subdirectory will be used to save your code.
84
85 Part 3: Learning Python in 10 Minutes -- Second Try, typing and running
86 the code.
87 -----
88 -----
89 -- cd into the directory "Syntax" and use your favorite text editor to
90 open the empty file that
91 you created named syntax.py
92 --enter the code that was originally intended to be entered at the >>>
93 prompt. Only type the
94 statements that are to be executed. Do not type the prompts. Do not type
95 the expected output. DO
96 TYPE THE COMMENTS beginning with #. Typing the comments will lead to
97 learning without much effort.
98 Que bueno!
99 --run your code and debug it so it works as intended.
100
101 --Repeat this for each section that you created a directory. Use the .py
102 file that you created for
103 that section.
104
105 --Note, in the section named FileIO, things should work the same as
106 shown in the tutorial. However,
107 since you are not using windows do not include C:\ in the file name.
108
109 For example:
110 --use myfile = file(r"binary.dat", "w")
111 --instead of myfile = file(r"C:\binary.dat", "w")
112
113 Part 4: Submitting your work.
114 -----
115
116 1. You will not have time to finish all or your lab during lab time.
117 However, you are required to
118 work through the whole lab period to receive full credit for your lab-2
119 grade.
120 2. You will submit your program in two parts:
121
122     (a) At the end of the lab you will submit a zipped tarball to your
123 TA. To submit your .tar.gz file
124     go to the lab link on the mcs260 course web page. There is a link at
125 the top to submit your lab files.
126     Ask your TA for the required password and any other instructions.
127
128     (b) part 1: name your zipped tarball:
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129 260w2labXXXlastname-incomplete.tar.gz
130     >> tar cvzf 260w2labXXXlastname-incomplete.tar.gz
131 260w2labXXXlastname
132     It is assumed that you learned how to do this in the first week
133 lab.
134
135     (c) part 2: it is required that you submit a complete lab. When you
136 finish the lab create and send
137     the following tarball to your TA:
138         260w2labXXXlastname-complete.tar.gz
139
140 Note: Working through this lab exercise will set you up to learn most of
141 the python that we will use
142 this semester. If you put a little time into it you will get a lot back.
143
144 Part 5: Optional
145 -----
146 Work through the complete tutorial. Most of what is in the tutorial will
147 be covered this semester and
148 possibly included on your final exam.
149
150
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