

Python In-class Programming Assignment Dictionaries

Liang, section 14.6, pp. 487-492

Dictionaries are an incredibly powerful tool in Python. With dictionaries you can quickly and easily organize massive data sets and perform deep analysis. As a reminder: *"A dictionary is a container object that stores a collection of key/value pairs. It enables fast retrieval, deletion, and updating of the value using the key."*¹

Update your repo if necessary (using `git pull`) and copy all the files in the following directory to a location of your choosing: `~/repo201/classwork/cw34/`. This directory contains a template file called (`midLookup.py`) to get you started.

Write a Python program that takes one input from the command line: A file of alpha codes and names, separated by semicolons. The program should open the file and create a dictionary with all the alpha codes as keys, and for each alpha code the associated name will be the value. The program should then prompt the user for an alpha code. If the alpha code exists, print the associated name. If the alpha code does not exist, print "Alpha Code Not Found." Repeat this until the user enters an empty string (return by itself) when prompted for an alpha code.

There is a file in `cw34` called `mids.txt` you can use for testing. It contains 50 entries, which are printed on the back page of this handout (*displayed in two columns to fit on the page*). To help you visualize what the dictionary will look like, here's an example with two entries:

```
{ '216617' : 'Kennith K. Lintag', '217647' : 'Jody Y. Knoke' }
```

You may assume that the entered file exists and that alpha codes are unique (no duplicates). You don't need to perform exception handling now, but you can add it later if you wish.

A compiled version of this program is available as:

`~/repo201/classwork/cw32/lookupMid` <- to distinguish it from `midLookup`, which you're writing.

¹ Liang p. 487

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Dictionaries

216617;Kennith K. Lintag	214036;Bernie B. Kamrad
217647;Jody Y. Knoke	213243;Bettyann L. Maginness
216322;Jamison S. Yenzer	219953;Sheila U. Quang
212588;Tana S. Helsabeck	211720;Diego C. Gandolfo
217865;Jonna K. Cooperwood	215571;Lorena F. Paese
212174;Sammie Y. Pollara	219738;Manual F. Rejman
213228;Florene P. Stiller	211667;Madelyn G. Ruscin
214540;Torie M. McTiernan	216245;Gerard V. Garred
219071;Garfield W. Lozzi	213409;Tanika E. Almeida
211688;Murray S. Vandriel	218069;Karl R. Jeweii
218206;Beatris N. Senge	213996;Cara U. Shaak
217485;Foster M. Heraty	210084;Harrison P. Hyter
218446;Aldo H. Saluga	219584;Erica O. Broadrick
218544;Rodger Z. Romane	210918;Lai Z. Anseth
212202;Blaine M. Klefstad	218860;Bud K. Dumitru
211378;Lizbeth R. Markworth	210228;Joesph Y. Petrash
215985;Burl Z. Harger	219603;Floy A. Quemada
215039;Rocco K. Romigh	213873;Kim D. Zul
216101;Theodore X. Jeleniewski	215441;Aurea W. Pruszynski
216770;Matha K. Derus	215385;Jean U. Morgera
212085;Vance Q. Thorsell	213303;Lois D. Sellars
219152;Gregory T. Castaneira	219326;Suzie E. Lalima
211462;Melodee M. Florez	219212;Lenore D. Faulman
215236;Rolanda F. Baisa	213671;Tonita B. Chevez
214585;Cornell S. Zaucha	216688;Leia R. Chiazza