

Chris Watt
2022 Nov 13
IT FDN 110 B AU 22
Assignment 05

Knowledge Document 05

Introduction

This week we further explored the use of Lists and took a look at how Dictionaries work.

Assignment

We were given a script to modify from using Lists to Dictionaries. In order to do so I spent time running portions of the script in Spyder to see what tests successfully and what fails. The idea was to retain the output of the script and only reorganize the internals. It was interesting to see how using Dictionary organizes data in a more optimal way, with less lines.

```
Python 3.9.12 (main, Apr 5 2022, 01:53:17)
Type "copyright", "credits" or "license"
for more information.

IPython 7.31.1 -- An enhanced
Interactive Python.

Restarting kernel...

In [1]: runfile('/Users/chriswatt/
PYTHON_CLASS/Mod_05/Assignment05/
CDInventory.py')
The Magic CD Inventory

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: hello

Choose either a, w, r, d or x!
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: a

Enter an ID: 1
Enter the CD's Artist: Tom Petty
Enter the CD's Title: Greatest Hits
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: a

Enter an ID: 2
Enter the CD's Artist: Twin Shadow
Enter the CD's Title: Forget
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: a
```

Figure 1Spyder_CDInventory01

```

Enter an ID: 3
Enter the CD's Artist: Sammy Hagar
Enter the CD's Title: Anything
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: s

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: i

ID, CD Title, Artist
1, Tom Petty, Greatest Hits,
2, Twin Shadow, Forget,
3, Sammy Hagar, Anything,
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: d

ID for CD you wish to delete; 3
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: s

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: i

```

Figure 2– Spyder_CDInventory02

```

ID, CD Title, Artist
1, Tom Petty, Greatest Hits,
2, Twin Shadow, Forget,
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: x

```

In [2]: |

Figure 3 – Spyder_CDInventory03

Function to Delete

Finding the appropriate method to delete a specific row was challenging. By using an index to identify where the row is the same way it is used in list indices, it allows the selection of an ID to eliminate a row.

```
[(base) chriswatt@Chriss-MBP mod_05 % cd assignment05
[(base) chriswatt@Chriss-MBP assignment05 % python cdinventory.py
The Magic CD Inventory

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: hello

Choose either a, w, r, d or x!
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: a

Enter an ID: 1
Enter the CD's Artist: Tom Petty
Enter the CD's Title: Greatest Hits
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: a

Enter an ID: 2
Enter the CD's Artist: Twin Shadow
Enter the CD's Title: Forget
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: a
```

Figure 4 – Terminal_CDInventory01

```

Enter an ID: 3
Enter the CD's Artist: Sammy Hagar
Enter the CD's Title: Anything
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: s

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: d

ID for CD you wish to delete; 3
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: s

[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: i

ID, CD Title, Artist
1, Tom Petty, Greatest Hits,
2, Twin Shadow, Forget,
[l] load Inventory from file
[a] Add CD
[i] Display Current Inventory
[d] delete CD from Inventory
[s] Save Inventory to file
[x] exit
l, a, i, d, s or x: x
(base) chriswatt@Chriss-MBP assignment05 %

```

Figure 4 – Terminal_CDInventory02

Summary

Even with the scripts provided, it was challenging to understand how Dictionaries work and I did enjoy moments where it did make sense. It's interesting to see how the same output can be reached with multiple methods and that is important for the earlier process of coding. I look forward to seeing new materials and how they can be implemented to find results optimally.

<https://github.com/CWattATX/CoffeeTable>