A picture containing leaf, plant, fern, green

Description automatically generatedNiyna E. Spellman

August 8, 2021

IT FDN 110: Introduction to Programming (Python)

Assignment 05[[1]](#footnote-1)

**Altering Codes and Dictionaries**

# Introduction

This module’s assignment was focused on dictionaries and altering the code of others. In this document, I will outline my observations while completing the assignment and share my solution.

# Deceptively Easy: The Process

To complete this I used the Notepad, Spyder, this module’s Lab assignments for references, and of course the file ‘CDInventory\_Starter’ we were instructed to add and modify. My process began with replacing the lists with dictionaries, defining my dictionary, and reusing the load method we learned in this week’s lab assignments. It was straightforward, as warned in the assignment to be wary of. Rightfully so, as I immediately ran into trouble when testing my code: saving to the txt file after loading, without getting appended duplicates.

## Observation 1 & 2: Appended Duplicates, Overwriting

The steps outlined in the #’s were to display menu, add data, display current, save data, and then close. However, the assigned additions to load data and delete data weren’t given numbers. Due to this, and the menu list being in the same order as the actually numbered menu items, I used the menu list’s order as how the steps should be followed.

1. **if** strChoice == 'l':
2. *# TODO Add the functionality of loading existing data*
3. objFile = open(strFileName, 'r')   *# open file*
4. **for** row **in** objFile:   *# read the file into in-memory list*
5. lstRow = row.strip().split(',')
6. dicRow = {'id': lstRow[0], 'album': lstRow[1], 'artist': lstRow[2]}
7. lstTbl.append(dicRow)
8. objFile.close()  *# close file*
9. **print**('Successfully loaded data.')  *# verify to user the load has occurred*
10. **pass**

Listing 1 -- Script snippet in Spyder, Load file

1. *# 4. Save the data to a text file CDInventory.txt if the user chooses so*
2. objFile = open(strFileName, 'a')
3. **for** row **in** lstTbl:
4. strRow = ''
5. **for** item **in** row.values():
6. strRow += str(item) + ','
7. strRow = strRow[:-1] + '**\n**'
8. objFile.write(strRow)
9. objFile.close()
10. **else**:
11. **print**('Please choose either l, a, i, d, s or x!')

Listing 2 -- Script snippet in Spyder, Save file

Text

Description automatically generated

Figure 1 -- Output in Spyder, Listed Menu Steps in Starter Code

Following this: every time I loaded in the file, added something, and saved, I got appended duplicates. Not ideal.

Text

Description automatically generated

Figure 2 -- Output in Spyder, Loading, Adding, Displaying, Saving

Graphical user interface, text, application

Description automatically generated

Figure 3 -- Notepad, the Output of the previous Loading, Adding, Displaying, Saving

To address this, I opted for a method where it reads what has been loaded and added to the file, and then overwrites. The failure of this is that, if the user doesn’t load their files before adding, then saves and exits, then it’ll only write that addition. The win is that if they load first, it works every time, and I duplicated this in my ‘delete’ but with an auto-load.

Adding this to ‘delete’ tempted me to add an auto-load to the menu opening as well, to avoid the problem completely, but I was unsure and opted not to. I was also influenced by how long my code became when completed. This is to say, if I were to do this again and knew the load didn’t need to happen first, I would add a load similar to the one in ‘delete’.

## Observation 3: Space Failure

My next pitfall was deleting an entry. I would liken it more to hitting a brick wall. To begin, I opted for the familiar ‘if else’ statements. I tried ‘pop’ and ‘truncate()’, but had no luck, and settled on ‘del’ as a straightforward removal. There goes that word again, as it introduced me to a new problem: what to do with that remaining space.

The removal would occur, but it would leave the row itself as an empty space, even when displaying the list in spyder. Every time I loaded the file, it would cause an error because it couldn’t read the space. Del row[] and Strip() didn’t apply as this was dictionaries and lists so I couldn’t use that. I searched endlessly online on how to address that space, and finally learned to remove it with .remove() directly.

Text

Description automatically generated

Figure 4 -- Output in Spyder, Empty Space and Failure on Load Errors

Graphical user interface, text, application

Description automatically generated

Figure 5 -- Output in Notepad, Empty Lines Where '3' was Removed but the Line Remained

## Observation 4: Too Many Extras

Very briefly, I also learned to keep it simple when possible. I attempted to add even more steps than I already had, like verifying your choice or offering alternative phrases if you didn’t enter a proper ID. My general takeaway was that my file was already too long, and I wasn’t making the correct (or even remotely efficient) choices anyway in trying to execute it.

1. **print**('Delete Successful!')
2. **else**:
3. **print**('Dangit! We missed')
4. **print**('**\n**Here is what we have now')
5. **print**('ID, Album, Artist')
6. **for** row **in** lstTbl:
7. **print**(\*row.values(), sep = ', ') *# unpacking the values*
8. choiceDelete = input('Save Your Changes? y/n ')
9. **for** row **in** lstTbl:
10. **if** choiceDelete == 'y':
11. *#lstTbl.clear()*
12. objFile = open(strFileName, 'a')
13. **for** row **in** lstTbl:
14. strRow = ''
15. **for** item **in** row.values():
16. strRow += str(item) + ','
17. strRow = strRow[:-1] + '**\n**'
18. objFile.write(strRow)
19. objFile.close()
20. **else**:
21. **print**('Understood. Not saving changes.**\n**')
22. **break**
23. **pass**

Listing 3 -- Script in Spyder, from first script attempt

In the end, I opted to only show you what is remaining of your list instead of verifying. Additionally, when a user inputs something that isn’t an ID, it just shows you the unchanged list and sends you back to menu.

1. **print**('**\n**Delete Successful!') *# verify to user it was removed*
2. **while** {} **in** lstTbl:
3. lstTbl.remove({}) *# remove empty line left in the list*
5. *# Load Remaining Dictionaries, Overwrite File*
6. **print**('Here is what we have now:**\n**') *# offer context to user*
7. **print**('ID, Album, Artist')
8. objFile = open(strFileName, 'w') *# open file to overwrite with updates*
9. **for** row **in** lstTbl:
10. strRow = ''
11. **for** item **in** row.values():
12. strRow += str(item) + ','
13. strRow = strRow[:-1] + '**\n**'
14. **print**(\*row.values(), sep = ', ') *# unpack the remaining values in the file*
15. objFile.write(strRow) *#overwriting*
16. objFile.close() *# close file*
17. **print**('**\n**File updated! No need to save again.') *# verify to user*
18. **print**()
19. **pass**

Listing 4 -- Script in Spyder, from final script

# Summary: Final Output and Better Syntax

Once I generally grasped the concepts and learned from my mistakes, I reached a less error prone script. The ‘delete’ was the most time consuming step for me, but I look forward to improving. Below is my final script in action. See you next module! 😊

Here is my final script, the output in Spyder, Command Prompt, and in the CDInventory.txt file.

1. *# Declare variables*
3. strChoice = '' *# User input*
4. lstTbl = []  *# list of lists to hold data*
5. dicRow = {}  *# dictionary of data row*
6. strFileName = 'CDInventory.txt'  *# data storage file*
7. objFile = None  *# file object*
9. *# Get user Input*
10. **print**('The Magic CD Inventory**\n**')
11. **while** True:
12. *# 1. Display menu allowing the user to choose:*
13. **print**('[l] Load Inventory from file**\n**[a] Add CD**\n**[i] Display Current Inventory')
14. **print**('[d] Delete CD from Inventory**\n**[s] Save Inventory to file**\n**[x] Exit')
15. strChoice = input('l, a, i, d, s or x: ').lower()  *# convert choice to lower case at time of input*
16. **print**()
18. **if** strChoice == 'x':
19. *# 5. Exit the program if the user chooses so*
20. **break**
22. **if** strChoice == 'l':
23. *# Loading existing data*
24. objFile = open(strFileName, 'r')   *# open file*
25. **for** row **in** objFile:   *# read the file into in-memory list*
26. lstRow = row.strip().split(',')
27. dicRow = {'id': lstRow[0], 'album': lstRow[1], 'artist': lstRow[2]}
28. lstTbl.append(dicRow)
29. objFile.close()  *# close file*
30. **print**('Successfully loaded data.**\n**')  *# verify to user the load has occurred*
31. **pass**
33. **elif** strChoice == 'a':  *# no elif necessary, as this code is only reached if strChoice is not 'exit'*
34. *# 2. Add data to the table (2d-list) each time the user wants to add data*
35. strID = input('Enter an ID: ')
36. strTitle = input('Enter the CD**\'**s Title: ')
37. strArtist = input('Enter the Artist**\'**s Name: ')
38. intID = int(strID)
39. dicRow = {'id': intID, 'album': strTitle, 'artist': strArtist} *# setting up as a dictionary data row*
40. lstTbl.append(dicRow) *# appending new dictionary row to file*
42. **elif** strChoice == 'i':
43. *# 3. Display the current data to the user each time the user wants to display the data*
44. **print**('ID, Album, Artist')
45. **for** row **in** lstTbl:
46. **print**(\*row.values(), sep = ', ') *# unpack the values*
47. **print**()
48. **pass**

51. **elif** strChoice == 'd':
52. *# Deleting an entry*
53. **print**('Here is what we presently have:**\n**') *# offer context to user*
54. **print**()
55. **for** row **in** lstTbl:
56. **print**(\*row.values(), sep = ', ')  *# print what is in the dictionary lists*
58. *# Gather Input, Remove Chosen ID*
59. deleteEntry = input('**\n**Which ID would you like to delete? ') *# get input from user on which ID to remove*
60. **for** row **in** lstTbl:
61. **if** row['id'] == deleteEntry: *# search for this id*
62. **del** row['id']
63. **del** row['album']
64. **del** row['artist']
65. **print**('**\n**Delete Successful!') *# verify to user it was removed*
66. **while** {} **in** lstTbl:
67. lstTbl.remove({}) *# remove empty line left in the list*
69. *# Load Remaining Dictionaries, Overwrite File*
70. **print**('Here is what we have now:**\n**') *# offer context to user*
71. **print**('ID, Album, Artist')
72. objFile = open(strFileName, 'w') *# open file to overwrite with updates*
73. **for** row **in** lstTbl:
74. strRow = ''
75. **for** item **in** row.values():
76. strRow += str(item) + ','
77. strRow = strRow[:-1] + '**\n**'
78. **print**(\*row.values(), sep = ', ') *# unpack the remaining values in the file*
79. objFile.write(strRow) *#overwriting*
80. objFile.close() *# close file*
81. **print**('**\n**File updated! No need to save again.') *# verify to user*
82. **print**()
83. **pass**
85. **elif** strChoice == 's':
86. *# 4. Save the data to a text file CDInventory.txt if the user chooses so*
87. objFile = open(strFileName, 'w')
88. **for** row **in** lstTbl:
89. strRow = ''
90. **for** item **in** row.values():
91. strRow += str(item) + ','
92. strRow = strRow[:-1] + '**\n**'
93. objFile.write(strRow)
94. objFile.close()
95. **else**:
96. **print**('Please choose either l, a, i, d, s or x!')

Listing 5 -- Script in Spyder

|  |
| --- |
| Python 3.8.8 (default, Apr 13 2021, 15:08:03) [MSC v.1916 64 bit (AMD64)]  Type "copyright", "credits" or "license" for more information.    IPython 7.22.0 -- An enhanced Interactive Python.    runfile('C:/\_FDProgramming/Assignment05/CDInventory.py', wdir='C:/\_FDProgramming/Assignment05')  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: l    Successfully loaded data.    [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: 5    Enter the CD's Title: Baby One More Time    Enter the Artist's Name: Britney Spears  [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, Album, Artist  1, Luxurious, Gwen Stefani  2, Fantasy, Mariah Carey  3, Come On Over Baby, Christina Aguilera  4, Nothing In This World, Paris Hilton  5, Baby One More Time, Britney Spears    [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    Here is what we presently have:      1, Luxurious, Gwen Stefani  2, Fantasy, Mariah Carey  3, Come On Over Baby, Christina Aguilera  4, Nothing In This World, Paris Hilton  5, Baby One More Time, Britney Spears      Which ID would you like to delete? 4    Delete Successful!  Here is what we have now:    ID, Album, Artist  1, Luxurious, Gwen Stefani  2, Fantasy, Mariah Carey  3, Come On Over Baby, Christina Aguilera  5, Baby One More Time, Britney Spears    File updated! No need to save again.    [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 |

Figure 6 -- Spyder Output

Text

Description automatically generated

Figure 7 -- Script in Spyder, visual reference to accompany previous figure

Graphical user interface, text, application

Description automatically generated

Figure 8 -- Output in NotePad

|  |
| --- |
| Microsoft Windows [Version 10.0.19042.1110]  (c) Microsoft Corporation. All rights reserved.    C:\Users\niyna>cd C:\\_FDProgramming\Assignment05    C:\\_FDProgramming\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: l    Successfully loaded data.    [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: 6  Enter the CD's Title: Lovefool  Enter the Artist's Name: The Cardigans  [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, Album, Artist  1, Luxurious, Gwen Stefani  2, Fantasy, Mariah Carey  3, Come On Over Baby, Christina Aguilera  5, Baby One More Time, Britney Spears  6, Lovefool, The Cardigans    [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    Here is what we presently have:      1, Luxurious, Gwen Stefani  2, Fantasy, Mariah Carey  3, Come On Over Baby, Christina Aguilera  5, Baby One More Time, Britney Spears  6, Lovefool, The Cardigans    Which ID would you like to delete? 2    Delete Successful!  Here is what we have now:    ID, Album, Artist  1, Luxurious, Gwen Stefani  3, Come On Over Baby, Christina Aguilera  5, Baby One More Time, Britney Spears  6, Lovefool, The Cardigans    File updated! No need to save again.    [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      C:\\_FDProgramming\Assignment05> |

Figure 9 -- Script in Command Prompt

Text

Description automatically generated

Figure 10 – Script in Command Prompt, visual reference to accompany previous figure

Graphical user interface, text, application

Description automatically generated

Figure 11 -- Output in Notepad, from Command Prompt actions

# Appendix

Script Reference 1, First working draft of CDInventory.py

1. *#------------------------------------------#*
2. *# Title: CDInventory.py*
3. *# Desc: Starter Script for Assignment 05*
4. *# Change Log: (Who, When, What)*
5. *# DBiesinger, 2030-Jan-01, Created File*
6. *# NSpellman, 2021-Aug-07, Modified File*
7. *#------------------------------------------#*
9. *# Declare variabls*
11. strChoice = '' *# User input*
12. lstTbl = []  *# list of lists to hold data*
13. *# TODO replace list of lists with list of dicts*
14. dicRow = {}  *# dictionary of data row*
15. strFileName = 'CDInventoryTEST1.txt'  *# data storage file*
16. objFile = None  *# file object*
18. *# Get user Input*
19. **print**('The Magic CD Inventory**\n**')
20. **while** True:
21. *# 1. Display menu allowing the user to choose:*
22. **print**('[l] Load Inventory from file**\n**[a] Add CD**\n**[i] Display Current Inventory')
23. **print**('[d] Delete CD from Inventory**\n**[s] Save Inventory to file**\n**[x] Exit')
24. strChoice = input('l, a, i, d, s or x: ').lower()  *# convert choice to lower case at time of input*
25. **print**()
27. **if** strChoice == 'x':
28. *# 5. Exit the program if the user chooses so*
29. **break**
31. **if** strChoice == 'l':
32. *# TODO Add the functionality of loading existing data*
33. objFile = open(strFileName, 'r')   *# open file*
34. **for** row **in** objFile:   *# read the file into in-memory list*
35. lstRow = row.strip().split(',')
36. dicRow = {'id': lstRow[0], 'album': lstRow[1], 'artist': lstRow[2]}
37. lstTbl.append(dicRow)
38. objFile.close()  *# close file*
39. **print**('Successfully loaded data.')  *# verify to user the load has occurred*
40. **pass**
42. **elif** strChoice == 'a':  *# no elif necessary, as this code is only reached if strChoice is not 'exit'*
43. *# 2. Add data to the table (2d-list) each time the user wants to add data*
44. strID = input('Enter an ID: ')
45. strTitle = input('Enter the CD**\'**s Title: ')
46. strArtist = input('Enter the Artist**\'**s Name: ')
47. intID = int(strID)
48. dicRow = {'id': intID, 'album': strTitle, 'artist': strArtist} *# setting up as a dictionary data row*
49. lstTbl.append(dicRow) *# appending new dictionary row to file*
51. **elif** strChoice == 'i':
52. *# 3. Display the current data to the user each time the user wants to display the data*
53. **print**('ID, Album, Artist')
54. **for** row **in** lstTbl:
55. **print**(\*row.values(), sep = ', ') *# unpacking the values*
56. **pass**

59. **elif** strChoice == 'd':
60. *# TODO Add functionality of deleting an entry*
61. **print**('Here is what we presently have:**\n**') *# inform the user of context*
62. **for** row **in** lstTbl:
63. **print**(\*row.values(), sep = ', ')  *# print what is in the dictionary lists*
65. deleteEntry = input('**\n**Which ID would you like to delete? ') *# get input from user on which ID to remove*
66. **for** row **in** lstTbl:
67. **if** row['id'] == deleteEntry: *# search for this id*
68. **print**('Gotcha!')
69. *#lstTbl.pop('id')*
70. *#lstTbl.pop('album')*
71. *#lstTbl.pop('artist')*
72. **del** row['id']
73. **del** row['album']
74. **del** row['artist']
75. *#lstTbl.truncate()*
76. **print**('Delete Successful!')
77. **else**:
78. **print**('Dangit! We missed')
79. **print**('**\n**Here is what we have now')
80. **print**('ID, Album, Artist')
81. **for** row **in** lstTbl:
82. **print**(\*row.values(), sep = ', ') *# unpacking the values*
83. choiceDelete = input('Save Your Changes? y/n ')
84. **for** row **in** lstTbl:
85. **if** choiceDelete == 'y':
86. *#lstTbl.clear()*
87. objFile = open(strFileName, 'a')
88. **for** row **in** lstTbl:
89. strRow = ''
90. **for** item **in** row.values():
91. strRow += str(item) + ','
92. strRow = strRow[:-1] + '**\n**'
93. objFile.write(strRow)
94. objFile.close()
95. **else**:
96. **print**('Understood. Not saving changes.**\n**')
97. **break**
98. **pass**
100. **elif** strChoice == 's':
101. *# 4. Save the data to a text file CDInventory.txt if the user chooses so*
102. objFile = open(strFileName, 'a')
103. **for** row **in** lstTbl:
104. strRow = ''
105. **for** item **in** row.values():
106. strRow += str(item) + ','
107. strRow = strRow[:-1] + '**\n**'
108. objFile.write(strRow)
109. objFile.close()
110. **else**:
111. **print**('Please choose either l, a, i, d, s or x!')

Script Reference 2, Final draft of CDInventory.py

1. *#------------------------------------------#*
2. *# Title: CDInventory.py*
3. *# Desc: Starter Script for Assignment 05*
4. *# Change Log: (Who, When, What)*
5. *# DBiesinger, 2030-Jan-01, Created File*
6. *# NSpellman, 2021-Aug-07, Modified File*
7. *# NSpellman, 2021-Aug-08, Modified File and Cleaned Up*
8. *#------------------------------------------#*
10. *# Declare variables*
12. strChoice = '' *# User input*
13. lstTbl = []  *# list of lists to hold data*
14. dicRow = {}  *# dictionary of data row*
15. strFileName = 'CDInventory.txt'  *# data storage file*
16. objFile = None  *# file object*
18. *# Get user Input*
19. **print**('The Magic CD Inventory**\n**')
20. **while** True:
21. *# 1. Display menu allowing the user to choose:*
22. **print**('[l] Load Inventory from file**\n**[a] Add CD**\n**[i] Display Current Inventory')
23. **print**('[d] Delete CD from Inventory**\n**[s] Save Inventory to file**\n**[x] Exit')
24. strChoice = input('l, a, i, d, s or x: ').lower()  *# convert choice to lower case at time of input*
25. **print**()
27. **if** strChoice == 'x':
28. *# 5. Exit the program if the user chooses so*
29. **break**
31. **if** strChoice == 'l':
32. *# Loading existing data*
33. objFile = open(strFileName, 'r')   *# open file*
34. **for** row **in** objFile:   *# read the file into in-memory list*
35. lstRow = row.strip().split(',')
36. dicRow = {'id': lstRow[0], 'album': lstRow[1], 'artist': lstRow[2]}
37. lstTbl.append(dicRow)
38. objFile.close()  *# close file*
39. **print**('Successfully loaded data.**\n**')  *# verify to user the load has occurred*
40. **pass**
42. **elif** strChoice == 'a':  *# no elif necessary, as this code is only reached if strChoice is not 'exit'*
43. *# 2. Add data to the table (2d-list) each time the user wants to add data*
44. strID = input('Enter an ID: ')
45. strTitle = input('Enter the CD**\'**s Title: ')
46. strArtist = input('Enter the Artist**\'**s Name: ')
47. intID = int(strID)
48. dicRow = {'id': intID, 'album': strTitle, 'artist': strArtist} *# setting up as a dictionary data row*
49. lstTbl.append(dicRow) *# appending new dictionary row to file*
51. **elif** strChoice == 'i':
52. *# 3. Display the current data to the user each time the user wants to display the data*
53. **print**('ID, Album, Artist')
54. **for** row **in** lstTbl:
55. **print**(\*row.values(), sep = ', ') *# unpack the values*
56. **print**()
57. **pass**

60. **elif** strChoice == 'd':
61. *# Deleting an entry*
62. **print**('Here is what we presently have:**\n**') *# offer context to user*
63. **print**()
64. **for** row **in** lstTbl:
65. **print**(\*row.values(), sep = ', ')  *# print what is in the dictionary lists*
67. *# Gather Input, Remove Chosen ID*
68. deleteEntry = input('**\n**Which ID would you like to delete? ') *# get input from user on which ID to remove*
69. **for** row **in** lstTbl:
70. **if** row['id'] == deleteEntry: *# search for this id*
71. **del** row['id']
72. **del** row['album']
73. **del** row['artist']
74. **print**('**\n**Delete Successful!') *# verify to user it was removed*
75. **while** {} **in** lstTbl:
76. lstTbl.remove({}) *# remove empty line left in the list*
78. *# Load Remaining Dictionaries, Overwrite File*
79. **print**('Here is what we have now:**\n**') *# offer context to user*
80. **print**('ID, Album, Artist')
81. objFile = open(strFileName, 'w') *# open file to overwrite with updates*
82. **for** row **in** lstTbl:
83. strRow = ''
84. **for** item **in** row.values():
85. strRow += str(item) + ','
86. strRow = strRow[:-1] + '**\n**'
87. **print**(\*row.values(), sep = ', ') *# unpack the remaining values in the file*
88. objFile.write(strRow) *#overwriting*
89. objFile.close() *# close file*
90. **print**('**\n**File updated! No need to save again.') *# verify to user*
91. **print**()
92. **pass**
94. **elif** strChoice == 's':
95. *# 4. Save the data to a text file CDInventory.txt if the user chooses so*
96. objFile = open(strFileName, 'w')
97. **for** row **in** lstTbl:
98. strRow = ''
99. **for** item **in** row.values():
100. strRow += str(item) + ','
101. strRow = strRow[:-1] + '**\n**'
102. objFile.write(strRow)
103. objFile.close()
104. **else**:
105. **print**('Please choose either l, a, i, d, s or x!')

1. Unsplash. “Photo by Mykyta Martynenko on Unsplash.” Unsplash.com, unsplash.com/photos/\_1UF\_3TlKcQ. Accessed 08 Aug 2021. (external site) [↑](#footnote-ref-1)