

CS 101 Homework #13

Deadline: January 16, 9:00 pm.

- *Save your code as `lastname_homework13.py` and submit on Google Classroom.*
- *Please, run your code before submitting.*
- *If you get an error, try to fix it before submitting your homework.*
- *Study classwork for related problems.*
- *If you get help from anyone, please, make sure that you actually understand the solution.*

*Try to finish as many tasks as possible. Completing one task is better than not completing anything at all. Tasks with * are relatively more challenging.*

Task 1

- Create a LIST of your three favorite books (each element should be the book title).
- Create a separate LIST with the names of the authors of your favorite books above (in the same order).

Task 2

- Using for loop, create a DICTIONARY, in which each key will be the book title and the value will be the book author's name.
- Repeat the same task using `dict()` and `zip()` functions (consult the classwork code if you need help).

Task 3

- Using comments answer the following questions:
 - Can you have multiple dictionary elements with the same key?
 - Can you have multiple dictionary elements with the same value?
- Verify your answer in Python.

Task 4

- Using for loop and f-strings print the title and author names of ALL books in your dictionary. For example,
 - My favorite book is (book title here) written by (author's name here).
 - My favorite book is (book title here) written by (author's name here).
 - My favorite book is (book title here) written by (author's name here).

Task 5

- Add one more book to your dictionary.

Task 6

- Ask the user for the TITLE of their favorite book. If the book is present in your dictionary, tell the user that this is your favorite book as well.
- Ask the user for the NAME of their favorite author. If the author is present in your dictionary, tell the user that this is your favorite writer as well.

Task 7*

- Create list of genres for your favorite book (in the same order as your book titles). It should look something like this, for example: ["fantasy", "mystery", "science fiction"]
- Using the three lists (book title, author, and genre) create a nested dictionary in the following format:

```
{book's title: {"author": author's name, "genre": book's genre}, book's title: {"author": author's name, "genre": book's genre}, book's title: {"author": author's name, "genre": book's genre}}
```

Task 8*

- Create a shallow copy and a deep copy of your nested dictionary. Verify that when you change the genre of one of your books in the original dictionary, the changes are also made in the shallow copy but not in the deep copy.