

CS Homework #16

Deadline: February 6th, 9:00 pm.

- *Save your code as `lastname_homework16.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.*
- *If you get help from anyone, please, make sure that you actually understand the solution.*

Task 1

Create a function that returns a square root of a variable (reminder: square root is the same as power of 0.5). Use `round(x, 2)` to round your result to two decimal points. Test your function.

Task 2

Create a function that accepts a list of values and returns a list of square root values. For example for `[4, 9, 25]`, it should return `[2, 3, 5]`. Round each value to two decimal points (a square root of 2 should look like 1.41). Test your function using `mylist = list(range(1, 10))`.

Task 3

Create a function (any function; use your imagination) that would implement default numerical values for arguments and a global variable inside the function.

Task 4

Similar to the previous homework, create a function that accepts a person's first name and last name. This time, the function creates a dictionary *item* with the key being the initials and the value being the first and last name. For example, if the name is "John Doe", the function creates "JD" key and "John Doe" value. Then this function *adds* this item to the dictionary that the user provides as another argument. That is, the function should look like this: `addname(newname, D)`, where `D` is the existing dictionary to which the item will be added. (You will need to create `D` in advance before using it as an argument). Run you function in a loop to add 3 names (you may want to create a list of 3 names before using its elements in the loop).