Lab Report 3

# Chapter 6

## Text

This assignment was about making a program that would print out the lyrics to *Ol’ MacDonald Had a Farm* where the user could choose the animals. The assignment tells you to use a function which I have called printlyrics(), but I also intend to use a dictionary because the program is much more efficient with a dictionary.

I picked sounds from animalsoundsforkids.com. Then I created a dictionary where every animal (on the list) was placed next to its corresponding sound. (Note that if I had more time, I would implement extra logic to correctly print an ox and an oink instead of a ox and a oink).

animalsounds = {

    "cow": "moo",

    "pig": "oink",

    "horse": "neigh",

    "goat": "bleat",

    "rooster": "crow",

    "chicken": "cluck",

    "duck": "quack",

    "swan": "song",

    "turkey": "gobble",

    "llama": "call",

    "bison": "grunt",

    "ox": "bellow",

}

Now it’s easy to print the corresponding sound to each animal. The other main thing about this assignment is the use of f-strings, block strings and args\_kwargs.

for animal in animals:

        print(

            f"""

                Ol' MacDonald had a farm, Ee-igh, Ee-igh, Oh!

                And on that farm he had a {animal}, Ei-igh, Ee-igh, Oh!

                With a {animalsounds[animal]}, {animalsounds[animal]}, here and a {animalsounds[animal]}, {animalsounds[animal]} there.

                Here a {animalsounds[animal]}, there a {animalsounds[animal]}, everywhere a {animalsounds[animal]}, {animalsounds[animal]}.

                Ol' MacDonald had a farm, Ee-igh, Ee-igh, Oh!

            """

        )

The f-string conveniently allows me to insert optional variables.

args\_kwargs is a Python thing but similar ideas exist in for example Java with “…” as a rest parameter.

def printlyrics(

    \*animals: str,

    \*\*animalsounds: str,

):

args\_kwargs is supe convenient if you want to have an optional number of parameters. args is a list and kwargs is a dictionary. Note that they don’t have to be called that, args is signaled with one \* and kwargs with two like \*\*.

printlyrics("cow", "pig", "horse", "goat", "rooster", \*\*animalsounds)

Here I feed the printlyrics function with args\_kwargs in two different ways. We can either enter them as separate variables or as a readymade list or dictionary, but then then we have to tell Python that by entering \* or \*\* before the list or dictionary.

### Problems

For the longest time I had an issue with nothing executing. Turns out the issue was that the program didn’t enter the main loop because of a typo. I had incorrectly written …

if \_\_name\_\_ == "main":

    main()

… instead of …

if \_\_name\_\_ == "\_\_main\_\_":

    main()

… this meant that the code never ran.