

CPSC 470/570: Artificial Intelligence

Assignment 0 (warmup, 2 points)

Introduction to Python3

Due Monday, February 8, 2021 at 10:30 am (class time)

I. Introduction

This assignment will introduce you to Python3 and give you a background needed for the class and further assignments.

II. Work environment

While you are welcome to work either on your own machine or remotely on a Zoo machine, we encourage you to work on a Zoo machine as all the environment requirements (e.g. Python3) are set up for you. Course staff will only be able to help support debugging on zoo-based python distributions. To login to the zoo, run the following command from your terminal:

```
ssh <net_id>@node.zoo.cs.yale.edu
```

For more information about the cluster and how to SSH into the Zoo, visit <http://zoo.cs.yale.edu/newzoo/>.

Go to Canvas and download the folder PS0. (There are three dots on the right when you move your mouse on the folder. Click on it and click on download, and it will download the entire folder.) You should see the following files:

- animals.py
- animals.txt
- assignment0.py
- sample_answers_solution
- sample.txt

If you are using the Zoo machines for this assignment, you can copy the assignment files from your local machine to the Zoo machine by running the following command on the terminal **on your local machine**:

```
scp -r <path_to_folder_on_local_machine> <net_id>@node.zoo.cs.yale.edu:/home/accts/<net_id>/
```

Note: Do **NOT** run this command on the zoo machine terminal.

III. Work with Python3

For this assignment, you must complete 9 TODO's inside the file `assignment0.py`. You may need to look up the documentation of Python3 to finish this assignment. The code should be relatively simple.

- TODO 1, 2, 3, 4, 7 require you to insert 1-3 lines of code.
- TODO 5, 6, 8, 9 require you to comment or uncomment one line.

Please read the assignment file for specific instructions for each TODO.

The remaining files are:

- `animals.py`: defines the `Animal` class, which is used in `assignment0.py`
- `animals.txt` : defines the *input* of the *private* test
- `sample.txt` : defines the *input* of the *public* test
- `sample_answers_solution.txt` : defines the *output* of the *public* test

1. Test your implementation with the public test

First, complete TODO items 1, 2, 3, 4, and 7. Leave the remaining TODO items untouched.

To execute `assignment0.py`, just run the following command in the folder containing that file:

```
python3 assignment0.py
```

You should see a new file, `sample_answers.txt`, has been generated. If this file is identical to `sample_answers_solution.txt`, and the output on your terminal is the same as the ones indicated in that file, then you have passed the public test. To test that the two files are identical, execute the following command:

```
diff sample_answers.txt sample_answers_solution.txt
```

2. Generate the solution for the private test

Now complete TODO items 5, 6, 8, and 9. Then, re-execute the script. You should see a new file, `answers.txt`, has been generated. This file will be submitted with your solution as a private test.

IV. Submit your assignment

Make sure your `assignment0` folder has the following files:

- `assignment0.py` – which contains your implementation for the private test
- `sample_answers.txt` – which you generated
- `answer.txt` – which you generated
- `animals.py` – without modification
- `animals.txt` – without modification
- `sample.txt` – without modification
- `sample_answers_solution.txt` – without modification

Zip your `assignment0` folder and name it `[netID]-assignment0.zip`

Upload the zip file to Gradescope (via Canvas).

V. Grading criteria

This assignment is worth two points.

- Public test: 1 point
- Private test: 1 point

VI. Late policy

We do not accept work past the deadline.