

CSCD 330 - Computer Networks

Homework 1, Intro to Python

Directions:

Complete the 4 TODO's in hw1.py and answer the following questions in your README. Note that we are using a script to compare your program's output to the expected output. Please check that your output matches the examples provided below.

Use a Linux VM! Windows handles UTF-8 text differently than Unix operating systems and will not work for this assignment.

Questions:

1. What is a Python List?
2. What is the time complexity of each of the following operations on a List: insertion, deletion, get
3. What is a Python Dictionary?
4. What is the time complexity of each of the following operations on a Dictionary: insertion, deletion, get

Turn in:

Submit a tarball of hw1.py, README.md, and Frankenstein.txt. **tar** is an archiving and compression tool. To “tar up” all the files in your current directory you might use the command:

```
tar -czvf your-name.tar.gz *
```

Example output:

```
python3 hw1.py 1 100 10
```

```
179
[(0, 11), (1, 8), (2, 5), (3, 9), (4, 7), (5, 6), (6, 12), (7, 13), (8, 10), (9, 8), (10, 11)]
```

```
python3 hw1.py 2 100 10
```

```
60
[(0, 5), (1, 2), (2, 10), (3, 6), (4, 8), (5, 13), (6, 7), (7, 13), (8, 19), (9, 8), (10, 9)]
uch loathsome yet appalling hideousness. I shut my eyes involuntarily and
```

```
python3 hw1.py 3 1000 50
```

```
1262
[(0, 13), (1, 24), (2, 29), (3, 17), (4, 20), (5, 14), (6, 22), (7, 26), (8, 20), (9, 16), (10, 16), (11,
22), (12, 20), (13, 13), (14, 17), (15, 20), (16, 19), (17, 22), (18, 15), (19, 17), (20, 23), (21, 22),
(22, 16), (23, 21), (24, 22), (25, 19), (26, 24), (27, 18), (28, 14), (29, 19), (30, 25), (31, 18), (32,
18), (33, 22), (34, 21), (35, 17), (36, 25), (37, 28), (38, 22), (39, 14), (40, 20), (41, 22), (42, 16),
(43, 20), (44, 24), (45, 22), (46, 18), (47, 16), (48, 15), (49, 19), (50, 18)]
n a bed, hardly conscious of what had
```