

Tuesday Nov 5, 2024

In-class Handout

COSC 101C Intro to Computing I

Prof. Forrest Davis

Name:

Discuss and complete the following questions with the person nearest you. You **may** be asked to share your thoughts with the class.

1. Modify the code below such that **read_data** function returns None, instead of causing the program to crash, if the file does not exist.

```
def read_data(filename:str) -> str:
    """Read data from a file
    Parameters:
        filename (str): Name of file
    Returns:
        data (str): Contents of the file
    """
    infile = open(filename, 'r')
    data = infile.read()
    infile.close()
    return data

def main() -> None:
    data = read_data('does-not-exist.txt')
    print(data)
```

main()

2. Write a function called **odd_lines** that takes the name of a file and returns a list containing the 1st, 3rd, 5th, etc. lines of the file.

Assume file1.txt contains the following data

First
Second
Third
Fourth
Fifth
Sixth
Seventh

3. Write a function to extract all the sentences from the following data (imagine it's in a file):

speaker_role,sentence,adjective

Target_Child,and an angry beaver or something came out and bit him in the nose,angry

Target_Child,but because I love my dog so much I wasn't too angry at him,angry

Target_Child,um they're quite happy and surprised to see them,happy

Target_Child,and in the last picture the dog is pretty happy bounding about,happy

Target_Child,and then Tom doesn't look too happy when he's licking his face,happy

Target_Child,and they went deeper into the woods and met an angry owl,angry

Target_Child,so he's maybe a little bit jealous,jealous

Target_Child,um they're rude unhappy for no good reason,happy

Target_Child,and then our form tutor just gets angry angry and shouts at us all and then moans at us all and like,angry

Target_Child,and she gets mad because I'm I don't have the same lifestyle as her,mad