Text file challenges

# Code snippets .

Read a single line from a text file

| 1  2  3 | file = open("quick.txt","r")  print(file.readline()) # read a single line and add \n |
| --- | --- |

Iterate over a text file

| 1  2  3  4 | file = open("quick.txt","r")  for line in file:  print(line) |
| --- | --- |

Iterate over a text file AND strip the \n

| 1  2  3  4 | file = open("quick.txt","r")  for line in file:  print(line.strip()) |
| --- | --- |

Read all the lines from a text file and place into a list, includes the \n

| 1  2  3 | file = open("quick.txt","r")  quicklist = file.readlines() |
| --- | --- |

Populates a list with each line from a text file and strips the \n

| 1  2  3  4  5  6  7  8 | file = open("quick.txt","r")  quicklist = []  for line in file:  quicklist.append(line.strip())  print(quicklist) |
| --- | --- |

# Challenge 1 .Find the sum of a collection of numbers

**Step 1**

Find the **text file** called numbers.txt and make sure that it is saved in the same location as your Python file.

NOTE TO TEACHER — PLACE THE LOCATION OF THE TEXT FILE HERE.

**Step 2**

The text file contains a list of numbers. You need to create a program that will read the text file and add each number together before displaying the total sum to the user.

An example output would be:

| The total sum of the number is: 210  >>> |
| --- |

**Step 3**

Test your program to check that it works correctly.

**Step 4**

Enter your finished code in the box below:

| file = open("numbers.txt","r")  numberlist = []  for line in file:  numberlist.append(int(line.strip()))  file.close()  total = 0  for item in numberlist:  total = total + item    print(f"The total sum of the number is: {total}") |
| --- |

# Challenge 2 .Piece the messages together

**Step 1**

Find the two **text files** called transcript1.txt and transcript2.txt — make sure that it is saved in the same location as your Python file.

NOTE TO TEACHER — PLACE THE LOCATION OF THE TEXT FILE HERE.

**Step 2**

Queen Droger has intercepted a conversation that has taken place between two traitors in her kingdom. The transcripts are in two separate text files. You need to write a program that will piece the two transcripts together so that it can be read as one document.

**Note:** The two files are exactly the same length.

An example output is below:

| is it safe to talk?  affirmative  when does the dragon fly west?  2 past the sun  how many men?  10,000  we have 5 ships  good, you will need them  see you in battle my friend  where shall we rendezvous when this is over?  ftqigt ecuvng  over and out  >>> |
| --- |

**Step 3**

Test your program to check that it works correctly.

**Step 4**

Enter your finished code in the box below:

**Note for assessor: there are many ways to solve this problem. This is one example.**

| file1 = open("transcript1.txt","r")  file2 = open("transcript2.txt","r")  transcript1 = []  transcript2 = []  for line in file1:  transcript1.append(line.strip())  for line in file2:  transcript2.append(line.strip())  file1.close()  file2.close()  transcript1\_length = len(transcript1)  for x in range(transcript1\_length):  print(transcript1[x])  print(transcript2[x]) |
| --- |

# Explorer task . Crack the code

Queen Droger has noticed that the rendezvous location has been encoded. When the text files were uncovered, a +2 was handwritten on a slip of paper. Create a program that will decrypt the location. Place your code below:

**Note for assessor: there are many ways to solve this problem. This is one example.**

| encoded\_word = "ftqigt ecuvng"  decoded\_word = ""  for letter in encoded\_word:  decoded\_letter = ord(letter)-2  decoded\_letter = chr(decoded\_letter)  decoded\_word = decoded\_word + decoded\_letter  print(decoded\_word) |
| --- |