



EXPLORER

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User Settings percipio38_documentation_best_pactice.py percipio39_reading_text_files.py

```
1 '''
2 percipio39_reading_text_files.py
3 Percipio video: Working with Files; Reading Text Files
4 Demonstrate reading text from a file using the open() function
5 This is based on PEP 20 -- The Zen of Python
6 Encoding is important and has a few choices
7 * leave blank and let the computer automatically decide
8 * us is MS Windows encoding
9 * latin-1 is English text
10 * utf-8
11 * utf-16
12 '''
13 nl = '\n'
14 print(nl, 'Iterating over lines:')
15 ''' Reading text from a file with default encoding '''
16 with open('reading_text_files.txt') as text_file: # uses the open() function to open a path
    to a file, it creates a 'file-like' object that can be automatically looped over. This
    returns each line in the file.
17     for line in text_file:
18         print(line, end='')
19
20 print(nl, 'Using the read() method:')
21 ''' Reading text from a file with (Windows) "us" encoding '''
22 with open('reading_text_files.txt', encoding='us') as text_file:
23     text = text_file.read() # use the file-like object to read the entire file
24 print(text)
25 ''' There is the ability to specify the number of bytes to read, but this is not typically
    done with text files. '''
26
27 print(nl, 'Using readlines() method which creates a list of all lines in a file & allows
    working with individual lines:') # Note: readlines
28 ''' Reading text from a file with "utf-8" encoding '''
29 with open('reading_text_files.txt', encoding='utf-8') as text_file:
30     lines = text_file.readlines() # automatically populates a list of all the lines from the
        file
31 print(lines)
32
33 print(nl, 'Using readline() method which works with one line at a time:') # Note: readline
```





EXPLORER

{ } User Settings

percipio38_documentation_best_practice.py

percipio39_reading_text_files.py x



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percipio41_writing_large_file...

percipio42_reading_binary_d...

percipio43_writing_binary_da...

```
33 print(nl, 'Using readline() method which works with one line at a time:') # Note: readline
34 ''' Reading text from a file with "latin-1" encoding '''
35 with open('reading_text_files.txt', encoding='latin-1') as text_file:
36     while 1: # endless while loop which attempts to read a line from the file
37         line = text_file.readline() # returns only one line
38         if not line: # if the while loop is not able to read a line,
39             break # then it breaks out of the loop,
40         else: # otherwise,
41             print(line, end='') # the loop prints the line it can read.
42
43 print(nl, 'Using error Handling:')
44 ''' Errors happen from inability to find the file and/or specifying the incorrect encoding '''
45 try: # try block allows the program to continue if the file has an error
46     ''' Reading text from a file with "utf-16" encoding '''
47     with open('reading_text_files.txt', encoding='utf-16') as text_file:
48         for line in text_file:
49             print(line, end='')
50 except UnicodeError: # with a failed file, an error can be messaged
51     print('Error with Unicode encoding')
52 '''
53 RESULT:
54 Iterating over lines:
```





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{ } User Settings percipio38_documentation_best_pactice.py percipio39_reading_text_files.py x

```
52 '''
53 RESULT:
54 Iterating over lines:
55 reading_text_files.txt_Line 001
56 reading_text_files.txt_Line 002
57 reading_text_files.txt_Line 003
58 reading_text_files.txt_Line 004
59 reading_text_files.txt_Line 005
60
61 Using the read() method:
62 reading_text_files.txt_Line 001
63 reading_text_files.txt_Line 002
64 reading_text_files.txt_Line 003
65 reading_text_files.txt_Line 004
66 reading_text_files.txt_Line 005
67
68 Using readlines() method which creates a list of all lines in a file & allows working with
   individual lines:
69 ['reading_text_files.txt_Line 001\n', 'reading_text_files.txt_Line 002\n',
   'reading_text_files.txt_Line 003\n', 'reading_text_files.txt_Line 004\n',
   'reading_text_files.txt_Line 005\n']
70
71 Using readline() method which works with one line at a time:
72 reading_text_files.txt_Line 001
73 reading_text_files.txt_Line 002
74 reading_text_files.txt_Line 003
75 reading_text_files.txt_Line 004
76 reading_text_files.txt_Line 005
77
78 Using error Handling:
79 Error with Unicode encoding
80 '''
```

