

hw.py

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1
2 # question 1
3
4 def extract_firstwords(filename):
5     first_words = []
6
7     with open(filename, 'r') as file:
8         for line in file:
9             words = line.strip().split()
10            if words: # check line is not empty
11                first_words.append(words[0])
12
13    return first_words
14
15
16 # Function call
17 result = extract_firstwords('sample.txt')
18
19 # Print the result
20 print(result)
21
22
23 # question 2
24
25 def copy_file():
26     # Open both files using context manager
27     with open('a.txt', 'r') as source_file, open('b.txt', 'w') as destination_file:
28         # Read and write line by line
29         for line in source_file:
30             destination_file.write(line)
31
32     print("File copied successfully from a.txt to b.txt")
33
34
35 # Function call
36 copy_file()
37
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39 # question 3
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41 def count_words_per_line():
42     with open('story.txt', 'r') as file:
43         line_number = 1
44
45         for line in file:
46             words = line.split()
47             word_count = len(words)
48             print(f"Line {line_number}: {word_count} words")
49             line_number += 1
50
51
52 # Function call
53 count_words_per_line()
54
55 # question no 5
56 def count_lines():
57     line_count = 0
58
59     with open('story.txt', 'r') as file:
60         for _ in file:
61             line_count += 1
62
63     print("Total number of lines:", line_count)
64
65
66 # Function call
67 count_lines()
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70 # question no 4
71 def count_lines():
72     line_count = 0
73
74     with open('story.txt', 'r') as file:
75         for _ in file:
76             line_count += 1
77
78     print("Total number of lines:", line_count)
79
80
81 # Function call
82 count_lines()
83
84
85 # question no 6
86
87 def square_numbers():
88     with open('numbers.txt', 'r') as source_file, open('squared.txt', 'w') as dest_file:
89         for line in source_file:
90             number = int(line.strip()) # convert string to int
91             squared = number * number # calculate square
92             dest_file.write(str(squared) + '\n') # convert to string and write
93
94     print("Squares written to squared.txt")
95
96
97 # Function call
98 square_numbers()
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100
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98 square_numbers()
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101 # question no 7
102
103 def add_to_log():
104     message = input("Enter a message: ")
105
106     with open('history.log', 'a') as file:
107         file.write(message + '\n')
108
109     print("Message added to history.log")
110
111
112 # Function call
113 add_to_log()
114
115
116 # question no 8
117
118 def convert_to_uppercase():
119     with open('input.txt', 'r') as source_file, open('output.txt', 'w') as dest_file:
120         for line in source_file:
121             dest_file.write(line.upper())
122
123
124 # Function call
125 convert_to_uppercase()
126
127
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