Q5 Python Scripting

Python Script

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#A python script to parse a timestamp log file and extract timestamps and error messages and store output in json file.

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import re

import json


#A pip command to install the required libraries assuming the necessary libraries are stored in requirements.txt

#pip install -r requirements.txt

errors_data = []

print("Enter timestamp log file path")

timestamplog_file_path = input()

print("Enter output json file path")

output_file_path = input()


with open(timestamplog_file_path, 'r') as log:

  log_content = log.read()

  #Regular expression search to match error

  error_pat = r'(\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{2},\d{3}) - ERROR - (.*?)(?=\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{2},\d{3}|\Z)'

  #matching the errors pattern

  matches = re.findall(error_pat, log_content, re.DOTALL)

  for match in matches:

   timestamp = match[0]

   error_message = match[1].strip()

   # Appending the extracted data to the list

   errors_data.append({'timestamp': timestamp, 'error_message': error_message})


with open(output_file_path, 'w') as json_file:
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# Dumping the extracted data to json file
json.dump(errors_data, json_file)
print("Successfully extracted error data and saved to {output_file_path}")
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Outputs: