

Q5 Python Scripting

Python Script

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

#Author: Gowri Sankar

```
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:
```

Dumping the extracted data to json file

json.dump(errors_data, json_file)

print("Successfully extracted error data and saved to {output_file_path}")

Outputs:

```
C: > Users > 290445 > python > parsedata.py
1  #A python script to parse a timestamp log file and extract timestamps and error messages and store output in json
2  #Author: Gowri Sankar
3
4  import re
5  import json
6
7  #A pip command to install the required libraries assuming the necessary libraries are stored in requirements.txt
8  #pip install -r requirements.txt
9  errors_data = []
10 print("Enter timestamp log file path")
11 timestamplog_file_path = input()
12 print("Enter output json file path")
13 output_file_path = input()
14
15 with open(timestamplog_file_path, 'r') as log:
16     log_content = log.read()
17     #Regular expression search to match error
18     error_pat = r'(\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{3}) - ERROR - (.*)?(?=\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{3})'

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  COMMENTS

USTR+290445@6WFPZD3 MINGW64 ~/python
$ python3 parsedata.py
Enter timestamp log file path
timestamp.log
Enter output json file path
output.json
Successfully extracted error data and saved to {output_file_path}
```

```
C: > Users > 290445 > python > {} output.json > {} 1
1  [{"timestamp": "2025-04-04 22:01:17,890", "error_message": "Failed to connect to external service.\n\n\n\nRetrying"}
```