

## Python scripting

```
master@mastervm: ~/devops-commontrack-mocktest$ cat <<EOF > /tmp/timestamp.log
2025-04-04 22:01:15,123 - INFO - Application started successfully.
2025-04-04 22:01:15,567 - DEBUG - Initializing database connection.
2025-04-04 22:01:16,234 - INFO - User 'Alice' logged in.
2025-04-04 22:01:17,890 - ERROR - Failed to connect to external service. Retrying in 5 seconds. Error: Connection refused.
2025-04-04 22:01:22,956 - WARNING - High CPU usage detected: 95%.
2025-04-04 22:01:25,345 - ERROR - Database query failed. Error: Table 'users' not found.
2025-04-04 22:01:29,789 - INFO - User 'Bob' logged in.
2025-04-04 22:01:31,456 - DEBUG - Processing request for resource '/data'.
2025-04-04 22:01:33,012 - ERROR - File not found. Path: /tmp/important_file.txt.
2025-04-04 22:01:36,543 - INFO - Application shutting down.
2025-04-04 22:01:37,098 - WARNING - Unsaved data might be lost.
2025-04-04 22:01:38,675 - ERROR - Exception during shutdown. Error: 'NoneType' object has no attribute 'close'.
EOF

GNU nano 3.2 parse_log.py
import json
import re
import os

log_file = '/tmp/timestamp.log'
output_file = 'question2/errors.json'

pattern = r'^(\d{4}-\d{2}-\d{2}) (\d{2}:\d{2}:\d{3}) - ERROR - (.+)$'
errors = []

with open(log_file, 'r') as file:
    for line in file:
        match = re.match(pattern, line)
        if match:
            timestamp, message = match.groups()
            errors.append({
                "timestamp": timestamp,
                "error_message": message.strip()
            })

# Create output folder if it doesn't exist
os.makedirs(os.path.dirname(output_file), exist_ok=True)

# Write JSON File
with open(output_file, 'w') as out:
    json.dump(errors, out, indent=4)

print(f"Extracted {len(errors)} error messages into {output_file}")

master@mastervm: ~/devops-commontrack-mocktest$ mkdir -p question2
master@mastervm: ~/devops-commontrack-mocktest$ nano question2/parse_log.py
master@mastervm: ~/devops-commontrack-mocktest$ python3 question2/parse_log.py
Extracted 4 error messages into question2/errors.json

master@mastervm: ~/devops-commontrack-mocktest$ cat question2/errors.json
[
  {
    "timestamp": "2025-04-04 22:01:17,890",
    "error_message": "Failed to connect to external service. Retrying in 5 seconds. Error: Connection refused."
  },
  {
    "timestamp": "2025-04-04 22:01:25,345",
    "error_message": "Database query failed. Error: Table 'users' not found."
  },
  {
    "timestamp": "2025-04-04 22:01:33,012",
    "error_message": "File not found. Path: /tmp/important_file.txt."
  },
  {
    "timestamp": "2025-04-04 22:01:38,675",
    "error_message": "Exception during shutdown. Error: 'NoneType' object has no attribute 'close'."
  }
]

master@mastervm: ~/devops-commontrack-mocktest$ pip install --upgrade pip
```