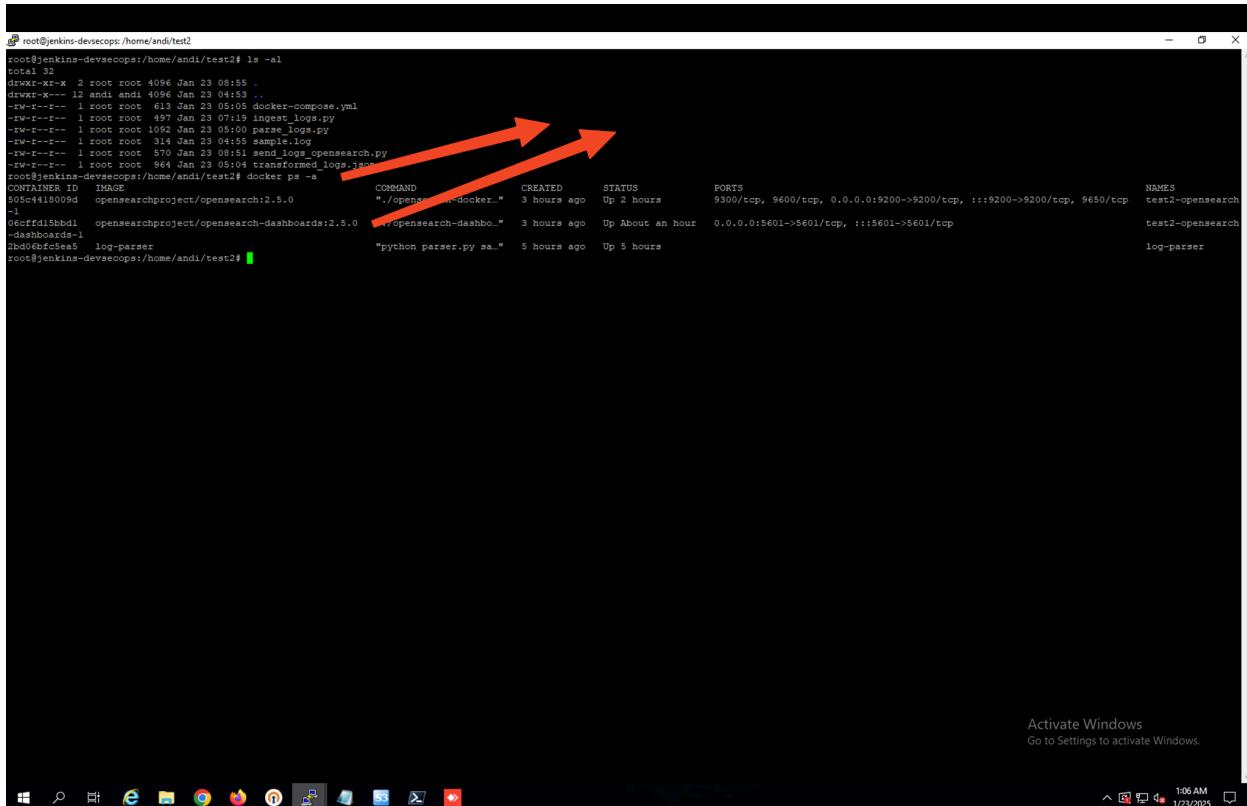
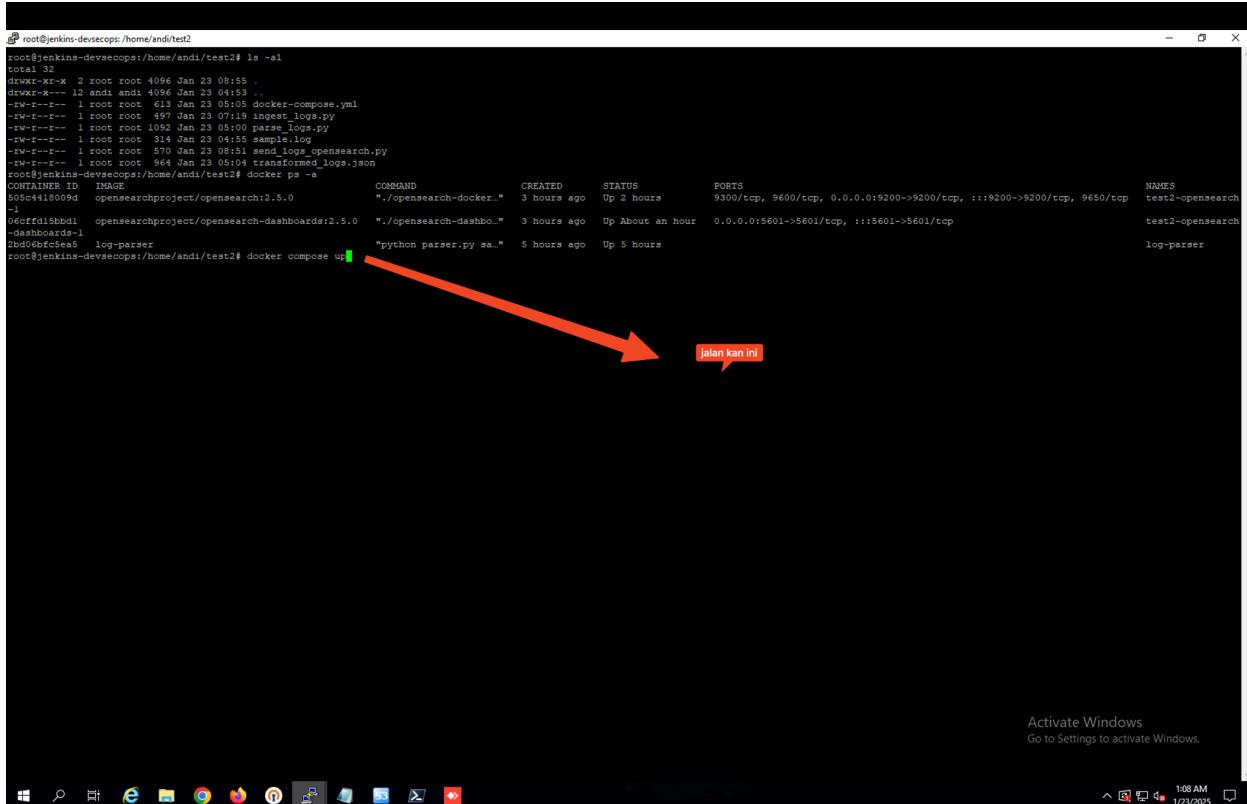


Opensearch menggunakan Docker, seperti contoh dibawah, berjalan

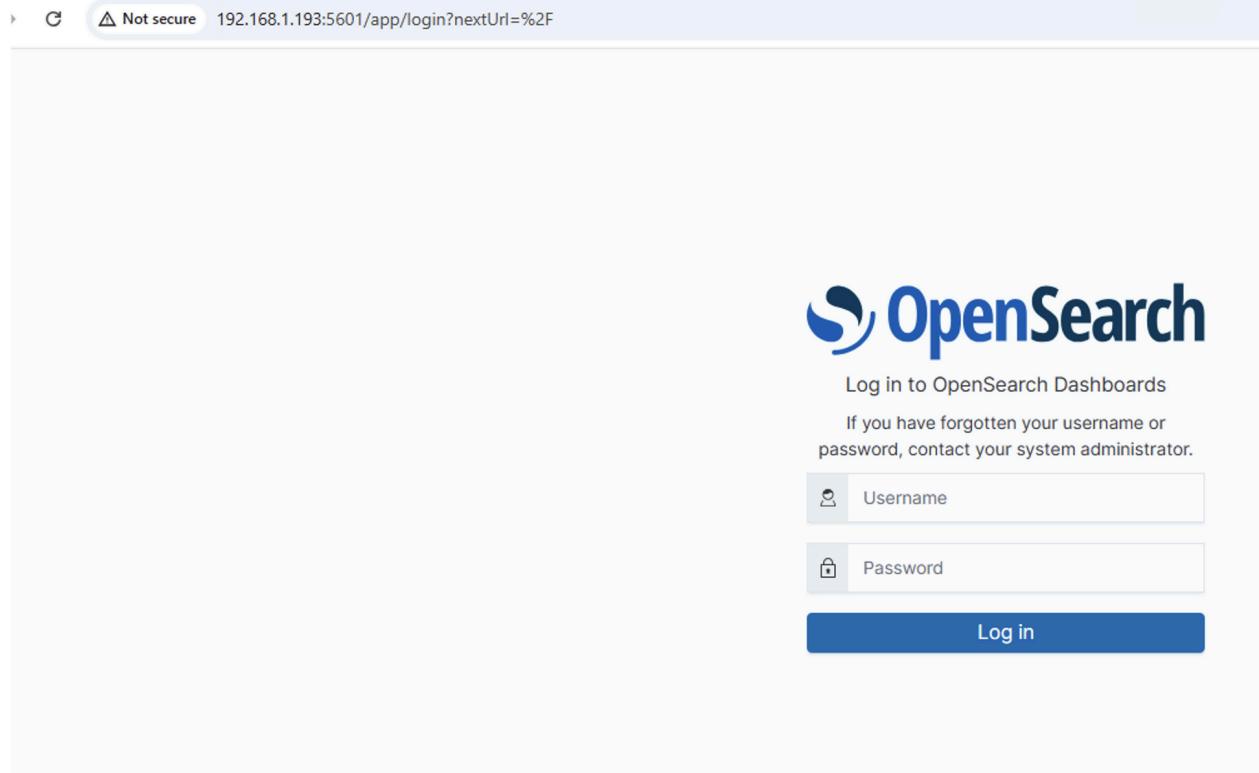


```
root@jenkins-devsecops:/home/andi/test2# ls -al
total 32
drwxr-xr-x  2 root root 4096 Jan 23 08:55 .
drwxr-xr-x 12 andi andi 4096 Jan 23 04:53 ..
-rw-r--r--  1 root root  613 Jan 23 05:05 docker-compose.yml
-rw-r--r--  1 root root  497 Jan 23 07:19 ingest_logs.py
-rw-r--r--  1 root root 1092 Jan 23 05:00 parse_logs.py
-rw-r--r--  1 root root  314 Jan 23 04:55 sample.log
-rw-r--r--  1 root root  570 Jan 23 08:51 send_logs_opensearch.py
-rw-r--r--  1 root root  964 Jan 23 05:04 transformed_logs.json
root@jenkins-devsecops:/home/andi/test2# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
505c418009d opensearchproject/opensearch:2.5.0 "/opensearch-docker..." 3 hours ago Up 2 hours 9300/tcp, 9600/tcp, 0.0.0.0:9200->9200/tcp, :::9200->9200/tcp, 9650/tcp test2-opensearch
1 06cff15bhd1 opensearchproject/opensearch-dashboards:2.5.0 "/opensearch-dashbo..." 3 hours ago Up About an hour 0.0.0.0:5601->5601/tcp, :::5601->5601/tcp test2-opensearch
2bd0dfc5e5 log-parser "python parser.py sa..." 5 hours ago Up 5 hours
root@jenkins-devsecops:/home/andi/test2#
```



```
root@jenkins-devsecops:/home/andi/test2# ls -al
total 32
drwxr-xr-x  2 root root 4096 Jan 23 08:55 .
drwxr-xr-x 12 andi andi 4096 Jan 23 04:53 ..
-rw-r--r--  1 root root  613 Jan 23 05:05 docker-compose.yml
-rw-r--r--  1 root root  497 Jan 23 07:19 ingest_logs.py
-rw-r--r--  1 root root 1092 Jan 23 05:00 parse_logs.py
-rw-r--r--  1 root root  314 Jan 23 04:55 sample.log
-rw-r--r--  1 root root  570 Jan 23 08:51 send_logs_opensearch.py
-rw-r--r--  1 root root  964 Jan 23 05:04 transformed_logs.json
root@jenkins-devsecops:/home/andi/test2# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
505c418009d opensearchproject/opensearch:2.5.0 "/opensearch-docker..." 3 hours ago Up 2 hours 9300/tcp, 9600/tcp, 0.0.0.0:9200->9200/tcp, :::9200->9200/tcp, 9650/tcp test2-opensearch
1 06cff15bhd1 opensearchproject/opensearch-dashboards:2.5.0 "/opensearch-dashbo..." 3 hours ago Up About an hour 0.0.0.0:5601->5601/tcp, :::5601->5601/tcp test2-opensearch
2bd0dfc5e5 log-parser "python parser.py sa..." 5 hours ago Up 5 hours
root@jenkins-devsecops:/home/andi/test2# docker compose up
jalan kan ini
```

## Terliat Dashboard opensearch



The screenshot shows a web browser window with the URL `192.168.1.193:9200`. The page displays a JSON response from the OpenSearch REST API. The response is a large object with many nested properties, including cluster name, UUID, version details, and tagline. The JSON is displayed in a "Pretty-print" format with indentation.

```
{
  "name" : "505c4418009d",
  "cluster_name" : "docker-cluster",
  "cluster_uuid" : "YJuR6ThNTHuQIs2m8PiMpg",
  "version" : {
    "distribution" : "opensearch",
    "number" : "2.5.0",
    "build_type" : "tar",
    "build_hash" : "b8a8b6c4d7fc7a7e32eb2cb68ecad8057a4636ad",
    "build_date" : "2023-01-18T23:48:48.981786100Z",
    "build_snapshot" : false,
    "lucene_version" : "9.4.2",
    "minimum_wire_compatibility_version" : "7.10.0",
    "minimum_index_compatibility_version" : "7.0.0"
  },
  "tagline" : "The OpenSearch Project: https://opensearch.org/"
}
```

```
curl: (6) Could not resolve host: elasticsearch
root@jenkins-devsecops:/home/andi/test2# curl -X GET "http://localhost:9200/" -u admin:admin
{
  "name" : "505c4418009d",
  "cluster_name" : "docker-cluster",
  "cluster_uuid" : "YJuR6ThNTHuQIs2m8PiMpg",
  "version" : {
    "distribution" : "opensearch",
    "number" : "2.5.0",
    "build_type" : "tar",
    "build_hash" : "b3a8ab6cd7fc7a7e32eb2cb68ecad8057a4636ad",
    "build_date" : "2023-01-18T23:48:48.981786100Z",
    "build_snapshot" : false,
    "lucene_version" : "9.4.2",
    "minimum_wire_compatibility_version" : "7.10.0",
    "minimum_index_compatibility_version" : "7.0.0"
  },
  "tagline" : "The OpenSearch Project: https://opensearch.org/"
}
root@jenkins-devsecops:/home/andi/test2#
```

```
root@jenkins-devsecops:/home/andi/test2# curl -X GET "localhost:9200/logsss-index/_search?pretty" -u admin:admin
{
  "took": 410,
  "timed_out": false,
  "_shards": {
    "total": 1,
    "successful": 1,
    "skipped": 0,
    "failed": 0
  },
  "hits": {
    "total": {
      "value": 6,
      "relation": "eq"
    },
    "max_score": 1.0,
    "hits": [
      {
        "_index": "logsss-index",
        "_id": "O8BgkpQBud33L9hX_OFg",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:00:01",
          "method": "GET",
          "endpoint": "/api/v1/resource",
          "status_code": "200",
          "response_time": "120"
        }
      },
      {
        "_index": "logsss-index",
        "_id": "PMBgkpQBud33L9hX_uGw",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:01:01",
          "method": "POST",
          "endpoint": "/api/v1/resource",
          "status_code": "500",
          "response_time": "180"
        }
      },
      {
        "_index": "logsss-index",
        "_id": "PcBgkpQBud33L9hX_uHb",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:02:01",
          "method": "GET",
          "endpoint": "/api/v1/resource",
          "status_code": "400",
          "response_time": "200"
        }
      },
      {
        "_index": "logsss-index",
        "_id": "PsBgkpQBud33L9hX_-EN",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:03:01",
          "method": "GET",
          "endpoint": "/api/v1/resource",
          "status_code": "200",
          "response_time": "200"
        }
      }
    ]
  }
}

```

Activate Windows  
Go to Settings to activate Windows.

```
root@jenkins-devsecops:/home/andi/test2# ls -al
total 32
drwxr-xr-x  2 root root 4096 Jan 23  08:55 .
drwxr-xr-- 12 andi andi 4096 Jan 23  04:53 ..
-rw-r--r--  1 root root   613 Jan 23  05:05 docker-compose.yml
-rw-r--r--  1 root root   497 Jan 23  07:19 ingest_logs.py
-rw-r--r--  1 root root  1092 Jan 23  05:00 parse_logs.py
-rw-r--r--  1 root root   314 Jan 23  04:55 sample.log
-rw-r--r--  1 root root   570 Jan 23  08:51 send_logs_opensearch.py
-rw-r--r--  1 root root  964 Jan 23  08:54 transformed_logs.json
root@jenkins-devsecops:/home/andi/test2# cd /tmp/ && curl -X POST "http://localhost:9200/_bulk?index=logsss-index/_logss_opensearch.py"
Log berhasil dihirikan dengan ID: O8BgkpQBud33L9hX_OFg
Log berhasil dihirikan dengan ID: PMBgkpQBud33L9hX_uGw
Log berhasil dihirikan dengan ID: PcBgkpQBud33L9hX_uHb
Log berhasil dihirikan dengan ID: PsBgkpQBud33L9hX_-EN
Log berhasil dihirikan dengan ID: P8BgkpQBud33L9hX_-E
Log berhasil dihirikan dengan ID: CMBgkpQBud33L9hX_-Gs
root@jenkins-devsecops:/home/andi/test2# curl -X GET "localhost:9200/logsss-index/_search?pretty" -u admin:admin
{
  "took": 410,
  "timed_out": false,
  "_shards": {
    "total": 1,
    "successful": 1,
    "skipped": 0,
    "failed": 0
  },
  "hits": {
    "total": {
      "value": 6,
      "relation": "eq"
    },
    "max_score": 1.0,
    "hits": [
      {
        "_index": "logsss-index",
        "_id": "O8BgkpQBud33L9hX_OFg",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:00:01",
          "method": "GET",
          "endpoint": "/api/v1/resource",
          "status_code": "200",
          "response_time": "120"
        }
      },
      {
        "_index": "logsss-index",
        "_id": "PMBgkpQBud33L9hX_uGw",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:01:01",
          "method": "POST",
          "endpoint": "/api/v1/resource",
          "status_code": "500",
          "response_time": "180"
        }
      },
      {
        "_index": "logsss-index",
        "_id": "PcBgkpQBud33L9hX_uHb",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:02:01",
          "method": "GET",
          "endpoint": "/api/v1/resource",
          "status_code": "400",
          "response_time": "200"
        }
      },
      {
        "_index": "logsss-index",
        "_id": "PsBgkpQBud33L9hX_-EN",
        "_score": 1.0,
        "_source": {
          "timestamp": "2025-01-23 10:03:01",
          "method": "GET",
          "endpoint": "/api/v1/resource",
          "status_code": "200",
          "response_time": "200"
        }
      }
    ]
  }
}

```

Activate Win
Go to Settings to

**OpenSearch Dashboards**

Discover

Search

+ Add filter

logsss\* ▾

Selected fields

\_source

Available fields

\_id  
\_index  
\_score  
\_type  
endpoint  
method  
response\_time  
status\_code  
timestamp

**\_source**

6 hits

```
> timestamp: 2025-01-23 10:00:01, method: GET endpoint: /api/v1/resource status_code: 200 response_time: 120 _id: OsBgpkQ8ud33L9hX_OFg _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:01:01, method: POST endpoint: /api/v1/resource status_code: 500 response_time: 180 _id: PMBgpkQ8ud33L9hX_uGa _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:02:01, method: GET endpoint: /api/v1/resource status_code: 400 response_time: 200 _id: PbBgpkQ8ud33L9hX_uHb _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:03:01, method: GET endpoint: /api/v1/resource status_code: 200 response_time: 130 _id: PsBgpkQ8ud33L9hX_-EN _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:04:01, method: POST endpoint: /api/v1/resource status_code: 500 response_time: 210 _id: P8BgpkQ8ud33L9hX_-E_ _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:05:01, method: GET endpoint: /api/v1/resource status_code: 200 response_time: 110 _id: QMBgpkQ8ud33L9hX_-Gs _type: - _index: logsss-index _score: 0
```

**OpenSearch Dashboards**

Discover

Search

+ Add filter

logsss\* ▾

Selected fields

\_source

Available fields

\_id  
\_index  
\_score  
\_type  
endpoint  
method  
response\_time  
status\_code  
timestamp

**\_source**

6 hits

**Expanded document**

Table JSON

```
{
  "_index": "logsss-index",
  "_id": "OsBgpkQ8ud33L9hX_OFg",
  "_version": 1,
  "_score": 0,
  "_source": {
    "timestamp": "2025-01-23 10:00:01",
    "method": "GET",
    "endpoint": "/api/v1/resource",
    "status_code": "200",
    "response_time": "120"
  }
}
```

**\_source**

6 hits

```
> timestamp: 2025-01-23 10:01:01, method: POST endpoint: /api/v1/resource status_code: 500 response_time: 180 _id: PMBgpkQ8ud33L9hX_uGa _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:02:01, method: GET endpoint: /api/v1/resource status_code: 400 response_time: 200 _id: PbBgpkQ8ud33L9hX_uHb _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:03:01, method: GET endpoint: /api/v1/resource status_code: 200 response_time: 130 _id: PsBgpkQ8ud33L9hX_-EN _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:04:01, method: POST endpoint: /api/v1/resource status_code: 500 response_time: 210 _id: P8BgpkQ8ud33L9hX_-E_ _type: - _index: logsss-index _score: 0
> timestamp: 2025-01-23 10:05:01, method: GET endpoint: /api/v1/resource status_code: 200 response_time: 110 _id: QMBgpkQ8ud33L9hX_-Gs _type: - _index: logsss-index _score: 0
```

## Tambahan

```
root@jenkins-devsecops:/home/andi/test2# ls -al
total 32
drwxr-xr-x  2 root root 4096 Jan 23 08:55 .
drwxr-xr-x 12 andi andi 4096 Jan 23 04:53 ..
-rw-r--r--  1 root root  613 Jan 23 05:05 docker-compose.yml
-rw-r--r--  1 root root  497 Jan 23 07:19 ingest_logs.py
-rw-r--r--  1 root root 1092 Jan 23 05:00 parse_Logs.py
-rw-r--r--  1 root root  314 Jan 23 04:55 sample.log
-rw-r--r--  1 root root  570 Jan 23 08:51 send_logs_opensearch.py
-rw-r--r--  1 root root  964 Jan 23 05:04 transformed_logs.json
root@jenkins-devsecops:/home/andi/test2# cat transformed_logs.json
[
  {
    "timestamp": "2023-01-23 10:00:01",
    "method": "POST",
    "endpoint": "/api/v1/resource",
    "status_code": "200",
    "response_time": "120"
  },
  {
    "timestamp": "2023-01-23 10:01:01",
    "method": "POST",
    "endpoint": "/api/v1/resource",
    "status_code": "500",
    "response_time": "180"
  },
  {
    "timestamp": "2023-01-23 10:02:01",
    "method": "GET",
    "endpoint": "/api/v1/resource",
    "status_code": "400",
    "response_time": "200"
  },
  {
    "timestamp": "2023-01-23 10:03:01",
    "method": "GET",
    "endpoint": "/api/v1/resource",
    "status_code": "200",
    "response_time": "150"
  },
  {
    "timestamp": "2023-01-23 10:04:01",
    "method": "POST",
    "endpoint": "/api/v1/resource",
    "status_code": "500",
    "response_time": "210"
  },
  {
    "timestamp": "2023-01-23 10:05:01",
    "method": "GET",
    "endpoint": "/api/v1/resource",
    "status_code": "200",
    "response_time": "110"
  }
]
root@jenkins-devsecops:/home/andi/test2#
```

Activate Windows  
Go to Settings to activate Windows.

```
root@jenkins-devsecops:/home/andi/test2# ls -al
total 32
drwxr-xr-x  2 root root 4096 Jan 23 08:55 .
drwxr-xr-x 12 andi andi 4096 Jan 23 04:53 ..
-rw-r--r--  1 root root  613 Jan 23 05:05 docker-compose.yml
-rw-r--r--  1 root root  497 Jan 23 07:19 ingest_logs.py
-rw-r--r--  1 root root 1092 Jan 23 05:00 parse_Logs.py
-rw-r--r--  1 root root  314 Jan 23 04:55 sample.log
-rw-r--r--  1 root root  570 Jan 23 08:51 send_logs_opensearch.py
-rw-r--r--  1 root root  964 Jan 23 05:04 transformed_logs.json
root@jenkins-devsecops:/home/andi/test2# cat parse_logs.py
import json
import re

# Sample log file path
log_file = 'sample.log'

# Function to parse each log line and extract relevant data
def parse_log_line(line):
    # Regular expression to match the log pattern
    log_pattern = r'(?P<timestamp>\S+ \S+) (?P<method>\S+) (?P<endpoint>\S+) (?P<status_code>\d+) (?P<response_time>\d+)ms'
    match = re.match(log_pattern, line)
    if match:
        return match.groupdict() # Return captured groups as a dictionary
    return None # Return None if no match is found

# Function to parse the entire log file
def parse_logs(file_path):
    parsed_logs = []
    with open(file_path, 'r') as file:
        for line in file:
            log_data = parse_log_line(line)
            if log_data:
                parsed_logs.append(log_data)
    return parsed_logs

# Transform parsed logs into JSON format
logs = parse_logs(log_file)
json_logs = json.dumps(logs, indent=2)

# Save the transformed logs to a JSON file
with open("transformed_logs.json", 'w') as json_file:
    json_file.write(json_logs)

print("Log parsing and transformation complete.")
root@jenkins-devsecops:/home/andi/test2#
```

Activate Windows  
Go to Settings to activate Windows.

