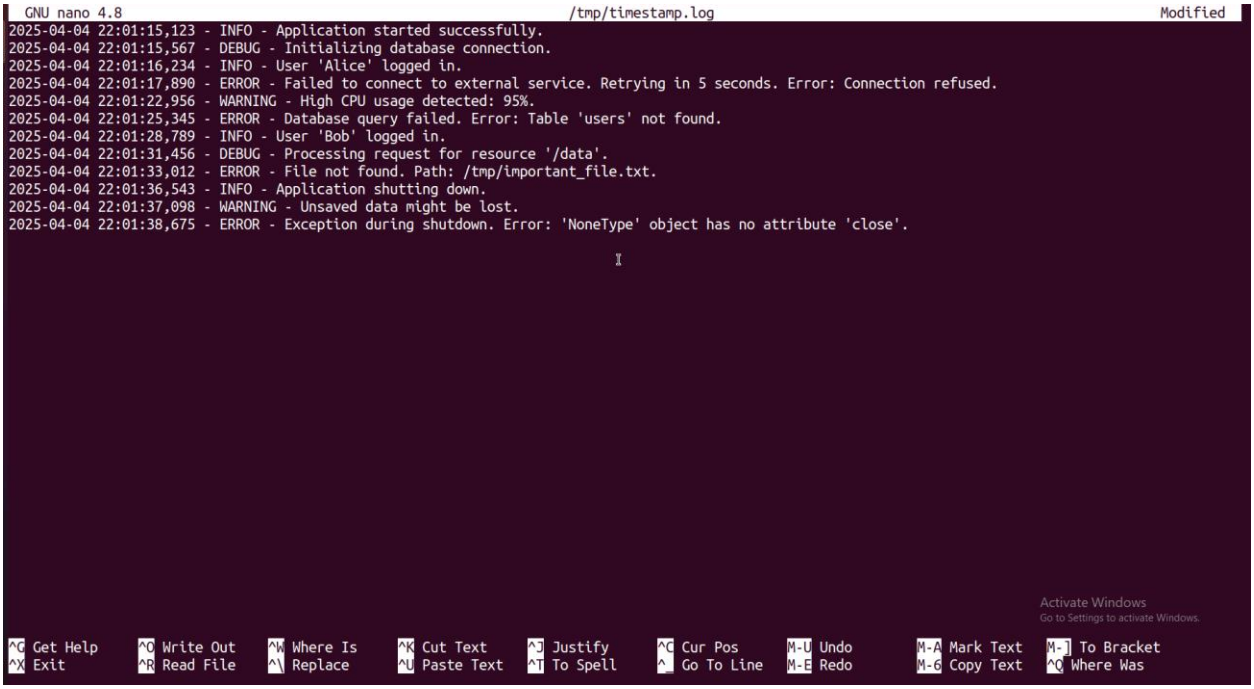
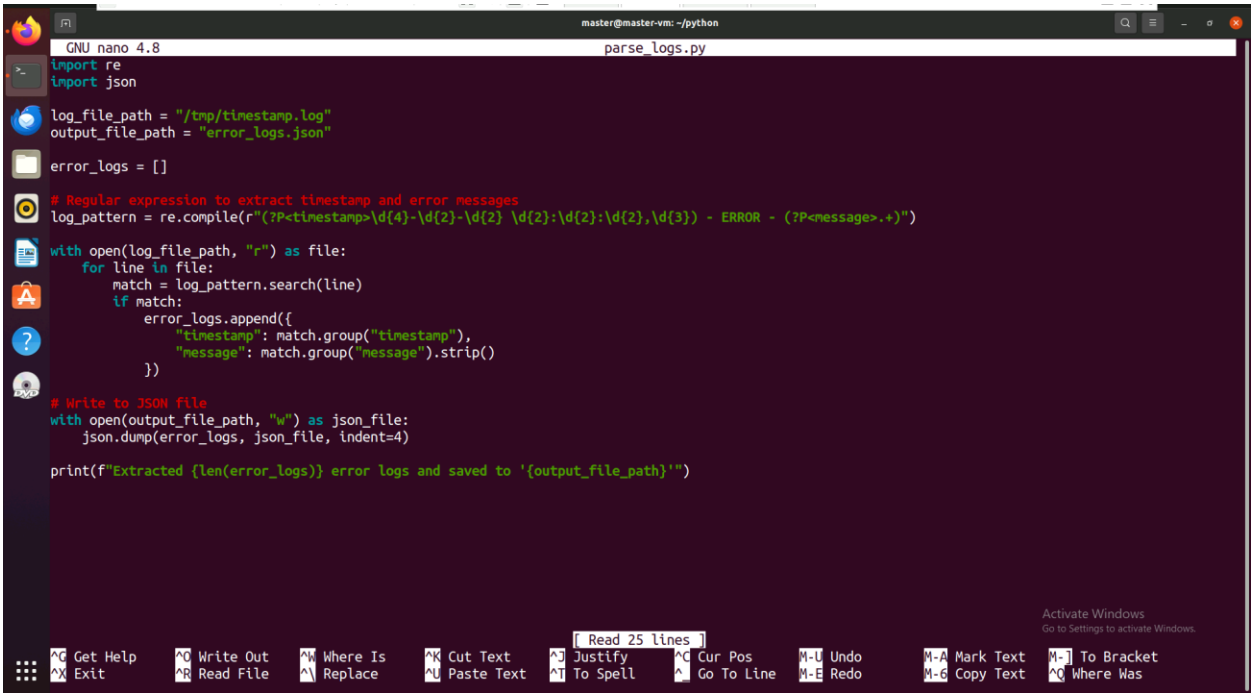
Q1. Python Scripting

Step 1: Creating the Log File.



Step 2: Creating the Python Script file to see the timestamp and log errors.



Step 3: After Creating the file providing the necessary permissions with chmod a+x and Running the Script.

- It then generates a log file- **parse_logs.py** in Json format.

```
master@master-vm:~/python$ nano parse_logs.py
master@master-vm:~/python$ chmod a+x parse_logs.py
master@master-vm:~/python$ python3 parse_logs.py
Extracted 4 error logs and saved to 'error_logs.json'
master@master-vm:~/python$ ls
error_logs.json  parse_logs.py
```

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Step 4: Viewing the Log files.

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