Python Scripting

1)Created the required Directories for timestamp

2)Added the files to it

```
master@master-vm:~$ mkdir -p /tmp
master@master-vm:~$ nano /tmp/timestamp.log
master@master-vm:~$ mkdir devops-commontrack-mocktest
mkdir: cannot create directory ‘devops-commontrack-mocktest’: File exists
master@master-vm:~$ cd devops-commontrack-mocktest
master@master-vm:~/devops-commontrack-mocktest$ mkdir -p question2
master@master-vm:~/devops-commontrack-mocktest$ cd question2
master@master-vm:~/devops-commontrack-mocktest/question2$ nano extract_errors.py
master@master-vm:~/devops-commontrack-mocktest/question2$ pip install --upgrade pip
Collecting pip
  Using cached pip-25.0.1-py3-none-any.whl (1.8 MB)
Installing collected packages: pip
  WARNING: The scripts pip, pip3 and pip3.8 are installed in '/home/master/.local/bin' which is not on PATH.
  Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
Successfully installed pip-25.0.1
master@master-vm:~/devops-commontrack-mocktest/question2$ python3 extract_errors.py
Extracted 3 error logs to error_logs.json
```

3) Now next do Parse a “/tmp/timestamp.log” file

app.py file

```
 GNU nano 4.8                                          extract_errors.py
import re
import json

log_file_path = "/tmp/timestamp.log"
output_json_path = "error_logs.json"

pattern = r"(\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{2},\d+).*?- ERROR - (.+)"

errors = []

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

with open(output_json_path, "w") as outfile:
    json.dump(errors, outfile, indent=4)

print(f"Extracted {len(errors)} error logs to {output_json_path}")
```

4)Extracting all timestamps and error messages

```
master@master-vm:~/devops-commontrack-mocktest$ cd question2
master@master-vm:~/devops-commontrack-mocktest/question2$ ls
error_logs.json  extract_errors.py
```

5)Stored the output in a Json format in a file c


Terminal
[
{
"timestamp": "2025-04-04 22:01:17,890",
"error": "Failed to connect to external service. Retrying in 5 seconds. Error: Connection refused."
},
{
"timestamp": "2025-04-04 22:01:25,345",
"error": "Database query failed. Error: Table 'users' not found."
},
{
"timestamp": "2025-04-04 22:01:33,012",
"error": "File not found. Path: /tmp/important_file.txt."
}
]