Aneesh Dalvi - Arizona State University – adalvi1@asu.edu

log-parser

This is python script which generates log for 1000 servers consisting of 2 CPUs each and then parses through it to give the user log details for the desired server within a given time.

This project has two main files.

1. log-generator - It generates log files for 1000 server machines and each server has 2 CPUs within. It generates logs for one whole day. It takes around 30 mins to generate all log files for each server.
2. log_reader - This file starts an interactive console tool which reads the desired logs from the desired server machine file within a second. The tool can be stopped with an 'Exit' command.

Log Format -

Timestamp: (Unixtimestamp), CPU_id: (0 or 1), CPU: (ip_address), %usage: (between 1-100)

Instructions to Run:

- Run the log-generator.py file -

```
python log-generator.py
```

- This will generate a new directory "testLogs" and generate a log file for each of 1000 servers.

- Once all the logs are generated successfully (around 30 mins later), run the log_reader.py file

```
python log_reader.py
```

After you use the above commands, the tool will ask you several inputs which you need to enter it correctly to get the desired logs from the server log files.

Inputs/Steps needed by the user to run LogReader -

1. ***Server IP address*** - It must be exactly same as the server name generated (For eg. 192.168.1.1) on the log file
2. ***CPU_ID*** - It can either be 0 or 1
3. ***Start Time*** - It must follow (YYYY-MM-DD HH:MM) format
4. ***End Time*** - It must follow (YYYY-MM-DD HH:MM) format

- If the user enters all the above details correctly, he/she will get the desired log details for the given time within a second.
- If the users fail to give correct input, the user will get an error message by the tool saying that user has entered wrong input.
- The tool will keep continuing to fetch log details until the user deny continuing.
- The tool stops when user types '*exit*' command.

Technologies / Concepts used:

Python - File Handling