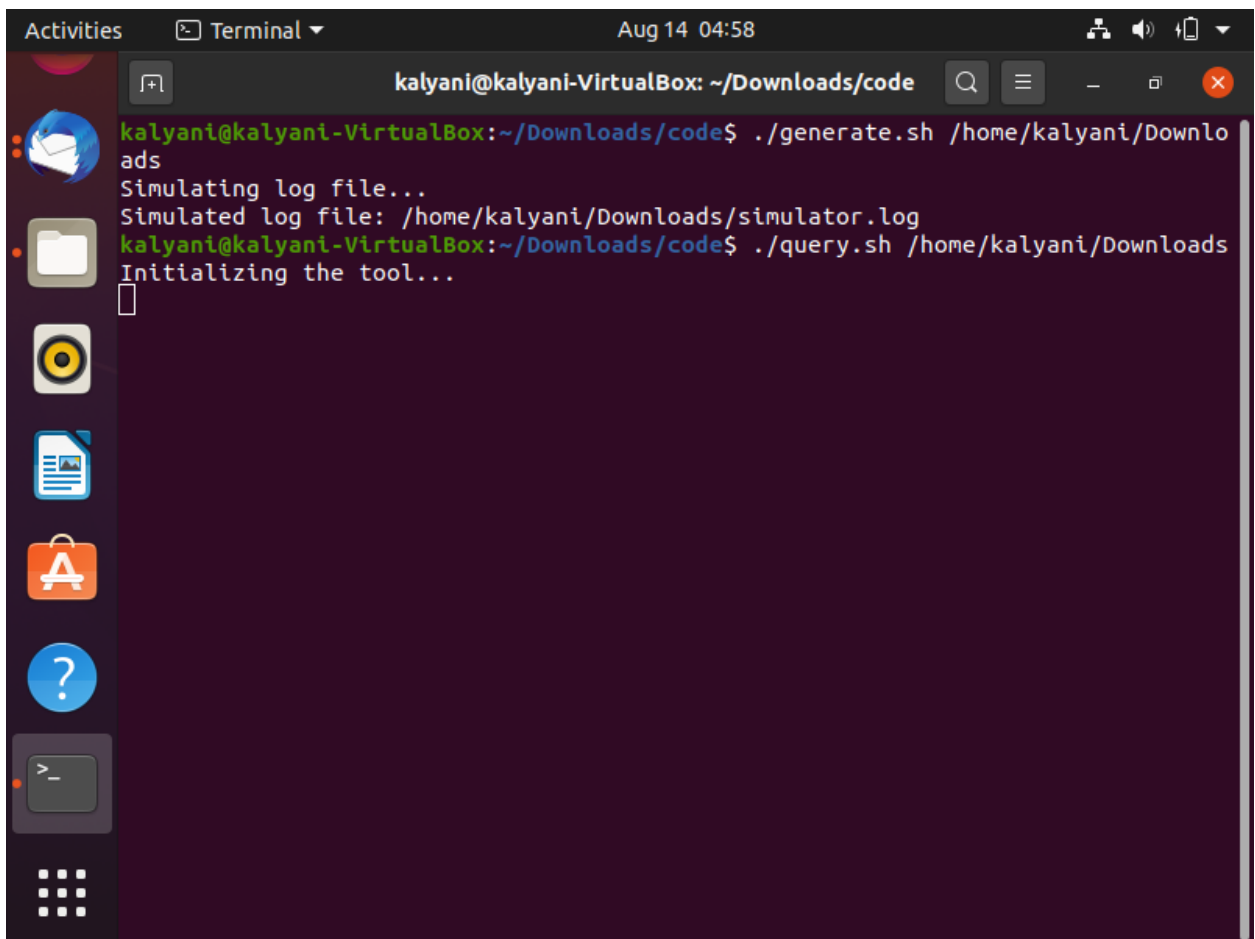


DOCUMENTATION AND REPORT

1. To generate logs, execute the below command
 - `./generate.sh DATA_PATH`
 - This command will create the log file in the given path
2. To Query logs using the interactive tool execute the below command and it launches the tool.
 - `./query.sh DATA_PATH`
 - This command retrieves the log file from the given path.
3. Screenshots demonstrating the operations of the Monitoring system.



The screenshot shows a terminal window titled "kalyani@kalyani-VirtualBox: ~/Downloads/code" with a search bar and window controls. The terminal output is as follows:

```
kalyani@kalyani-VirtualBox:~/Downloads/code$ ./generate.sh /home/kalyani/Downlo
ads
Simulating log file...
Simulated log file: /home/kalyani/Downloads/simulator.log
kalyani@kalyani-VirtualBox:~/Downloads/code$ ./query.sh /home/kalyani/Downloads
Initializing the tool...
█
```

The terminal window is part of a desktop environment with a sidebar on the left containing icons for Activities, Home, Files, Music, Videos, Applications, and a question mark. The top of the window shows the date and time as "Aug 14 04:58".

```
Activities Terminal Aug 14 05:02
kalyani@kalyani-VirtualBox: ~/Downloads/code
kalyani@kalyani-VirtualBox:~/Downloads/code$ ./generate.sh /home/kalyani/Downlo
ads
Simulating log file...
Simulated log file: /home/kalyani/Downloads/simulator.log
kalyani@kalyani-VirtualBox:~/Downloads/code$ ./query.sh /home/kalyani/Downloads
Initializing the tool...
Initializing Done

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05

(2014-10-31 00:00, 16%) (2014-10-31 00:01, 24%) (2014-10-31 00:02, 43%) (2014-1
0-31 00:03, 92%) (2014-10-31 00:04, 48%) (2014-10-31 00:05, 62%)

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:09

(2014-10-31 00:00, 16%) (2014-10-31 00:01, 24%) (2014-10-31 00:02, 43%) (2014-1
0-31 00:03, 92%) (2014-10-31 00:04, 48%) (2014-10-31 00:05, 62%) (2014-10-31 00
:06, 47%) (2014-10-31 00:07, 94%) (2014-10-31 00:08, 70%) (2014-10-31 00:09, 46
%)

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>EXIT
```

```
Activities Terminal Aug 14 05:05
kalyani@kalyani-VirtualBox: ~/Downloads/code
>QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05

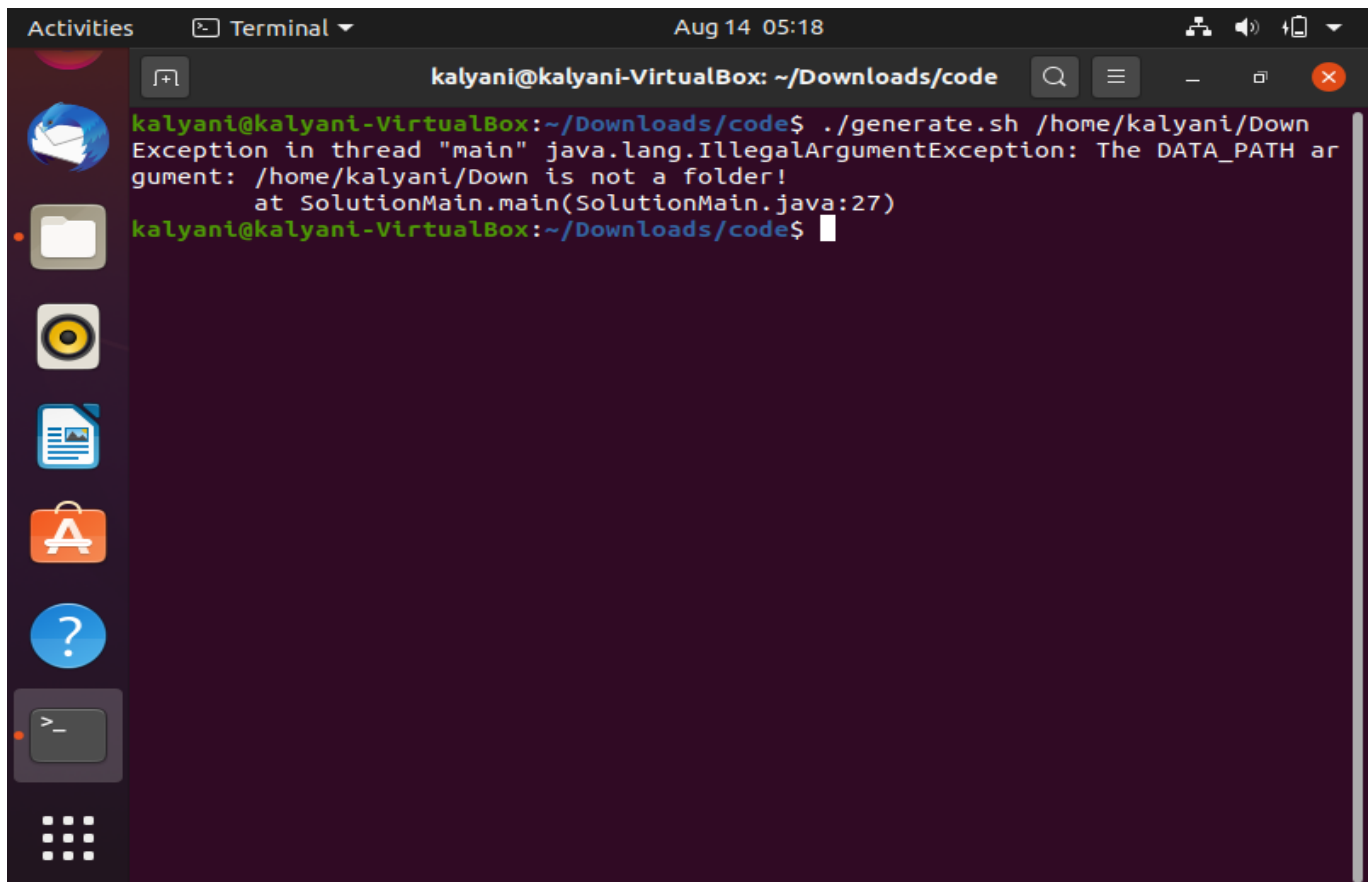
(2014-10-31 00:00, 16%) (2014-10-31 00:01, 24%) (2014-10-31 00:02, 43%) (20
14-10-31 00:03, 92%) (2014-10-31 00:04, 48%) (2014-10-31 00:05, 62%)

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:09

(2014-10-31 00:00, 16%) (2014-10-31 00:01, 24%) (2014-10-31 00:02, 43%) (20
14-10-31 00:03, 92%) (2014-10-31 00:04, 48%) (2014-10-31 00:05, 62%) (2014-
10-31 00:06, 47%) (2014-10-31 00:07, 94%) (2014-10-31 00:08, 70%) (2014-10-
31 00:09, 46%)

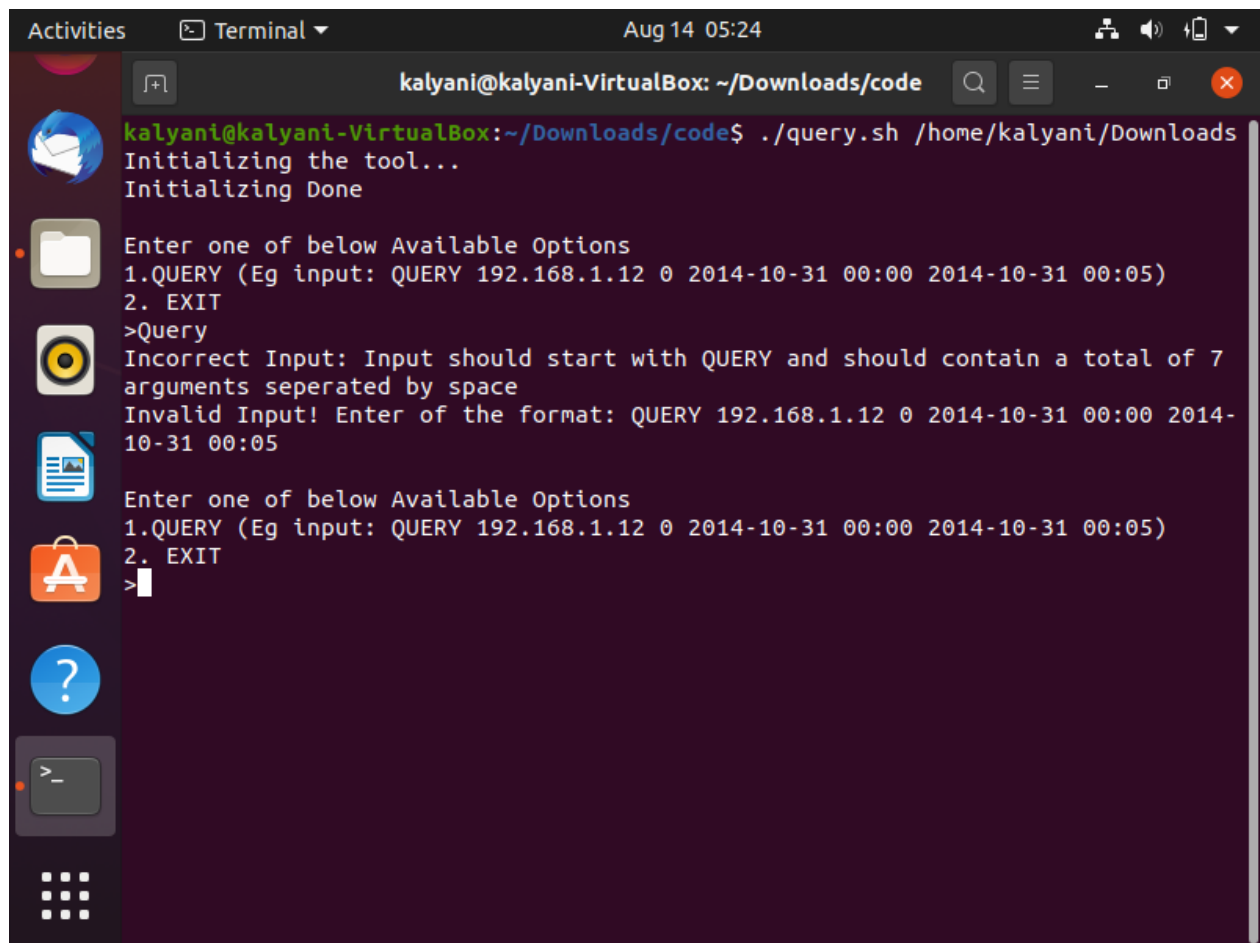
Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>EXIT
Exiting the Application....
kalyani@kalyani-VirtualBox:~/Downloads/code$
```

4. Wrong input and exception handling case snaps
 - When Incorrect path is provided

A screenshot of a Linux terminal window. The title bar shows 'Activities', 'Terminal', and the date 'Aug 14 05:18'. The terminal window title is 'kalyani@kalyani-VirtualBox: ~/Downloads/code'. The prompt is 'kalyani@kalyani-VirtualBox:~/Downloads/code\$'. The user has entered './generate.sh /home/kalyani/Down'. The output shows a Java exception: 'Exception in thread "main" java.lang.IllegalArgumentException: The DATA_PATH argument: /home/kalyani/Down is not a folder! at SolutionMain.main(SolutionMain.java:27)'. The prompt is now 'kalyani@kalyani-VirtualBox:~/Downloads/code\$'.

```
kalyani@kalyani-VirtualBox:~/Downloads/code$ ./generate.sh /home/kalyani/Down
Exception in thread "main" java.lang.IllegalArgumentException: The DATA_PATH argument: /home/kalyani/Down is not a folder!
    at SolutionMain.main(SolutionMain.java:27)
kalyani@kalyani-VirtualBox:~/Downloads/code$
```

- When Incorrect input Query format is given



```
kalyani@kalyani-VirtualBox: ~/Downloads/code
kalyani@kalyani-VirtualBox:~/Downloads/code$ ./query.sh /home/kalyani/Downloads
Initializing the tool...
Initializing Done

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>Query
Incorrect Input: Input should start with QUERY and should contain a total of 7
arguments seperated by space
Invalid Input! Enter of the format: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-
10-31 00:05

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>
```

- When Incorrect time format is given

Activities Terminal Aug 14 05:25

kalyani@kalyani-VirtualBox: ~/Downloads/code

```
kalyani@kalyani-VirtualBox:~/Downloads/code$ ./query.sh /home/kalyani/Downloads
Initializing the tool...
Initializing Done

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>Query
Incorrect Input: Input should start with QUERY and should contain a total of 7
arguments seperated by space
Invalid Input! Enter of the format: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-
10-31 00:05

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:
Incorrect Input: 24 HR time format incorrect!
Invalid Input! Enter of the format: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-
10-31 00:05

Enter one of below Available Options
1. QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>
```

- When non-existing server IP is given

```
Activities Terminal Aug 14 05:26
kalyani@kalyani-VirtualBox: ~/Downloads/code

1.QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:
Incorrect Input: 24 HR time format incorrect!
Invalid Input! Enter of the format: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-
10-31 00:05

Enter one of below Available Options
1.QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>QUERY 192.168.1.12 6 QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05^[[

Incorrect Input: Input should start with QUERY and should contain a total of 7
arguments seperated by space
Invalid Input! Enter of the format: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-
10-31 00:05

Enter one of below Available Options
1.QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>QUERY 191.168.1.12 0 2014-10-31 00:00 2014-10-31 00:08
Incorrect Input: Server IP range should be from 192.168.1.10 - 192.168.4.241
Invalid Input! Enter of the format: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-
10-31 00:05

Enter one of below Available Options
1.QUERY (Eg input: QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05)
2. EXIT
>
```