

Documentation

1. Introduction

In this monitoring system, there are 4 files in it, which are generate.sh, query.sh, Generator.java, Parser.java. generate.sh and query.sh are for compiling and starting Generator and Parser. The purpose of Generator.java is to generate a file called DATA_PATH. DATA_PATH contains all record of the 1000 servers about timestamp, IP, CPU ID, and usage for one day. The Parser.java will execute the query command line by users, if the command line is not valid, the system will response “undefined command”.

2. User Manual

- 1) Go to the system folder

```
donghao@Donghaos-MacBook-Pro Desktop % cd monitoring_system
donghao@Donghaos-MacBook-Pro monitoring_system % ls
Generator.java  Parser.java      generate.sh      query.sh
```

- 2) Given permission to generate.sh and query.sh

```
donghao@Donghaos-MacBook-Pro monitoring_system % chmod 777 generate.sh
donghao@Donghaos-MacBook-Pro monitoring_system % chmod 777 query.sh
```

- 3) Execute generate.sh, you will see DATA_PATH

```
donghao@Donghaos-MacBook-Pro monitoring_system % ./generate.sh DATA_PATH
donghao@Donghaos-MacBook-Pro monitoring_system % ls
DATA_PATH      Generator.java  generate.sh
Generator.class Parser.java     query.sh
```

- 4) Execute query.sh, and the program is ready to execute the query command

```
donghao@Donghaos-MacBook-Pro monitoring_system % ./query.sh DATA_PATH
```

- 5) Execute the query command – “QUERY 192.168.1.10 1 2014-10-31 00:00 2014-10-31 00:05”. It will show the CPU usage.

```
QUERY 192.168.1.10 1 2014-10-31 00:00 2014-10-31 00:05
CPU1 usage on 192.168.1.10:
(2014-10-31 00:00, 21%), (2014-10-31 00:01, 10%), (2014-10-31 00:02, 42%), (2014-10-31 00:03, 64%), (2014-10-31 00:04, 57%), (2014-10-31 00:05, 38%)
```

- 6) Execute the query command – “QUERY 192.168.1.10 0 2014-10-31 00:00 2014-10-31 00:05”. It will show the CPU usage.

```
QUERY 192.168.1.12 0 2014-10-31 00:00 2014-10-31 00:05
CPU0 usage on 192.168.1.12:
(2014-10-31 00:00, 33%), (2014-10-31 00:01, 9%), (2014-10-31 00:02, 90%), (2014-10-31 00:03, 93%), (2014-10-31 00:04, 14%), (2014-10-31 00:05, 59%)
```

- 7) If the command is invalid (not start with query), it will show “undefined command”.

```
show 192.168.1.10
Undefined command
```

- 8) Type “EXIT” to exit the program

```
show 192.168.1.10
Undefined command
EXIT
donghao@Donghaos-MacBook-Pro monitoring_system %
```