N'osairis Technology

Software Engineer Assessment

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Github: https://github.com/arhamrizvi/Ping-Report-System (Code & other docs)

This assessment is divided into 2 parts:

1. MySQL
2. Python Web Application (Made using Flask Framework)

1. MySQL

The Database (terminals) and Table (data_terminals) are created in MySQL Workbench and the Create Script can be found in the github link attached below:
https://github.com/arhamrizvi/Ping-Report-System

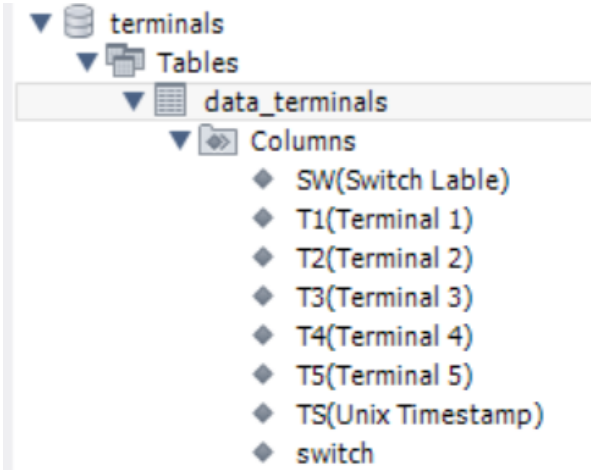


Figure 1.0 : Create Database, Table

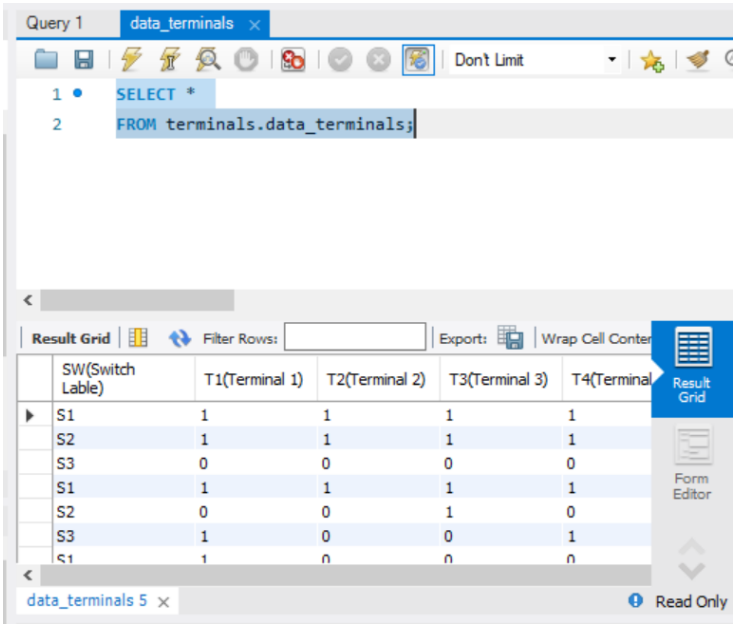


Figure 1.1: Importing the csv data into the table

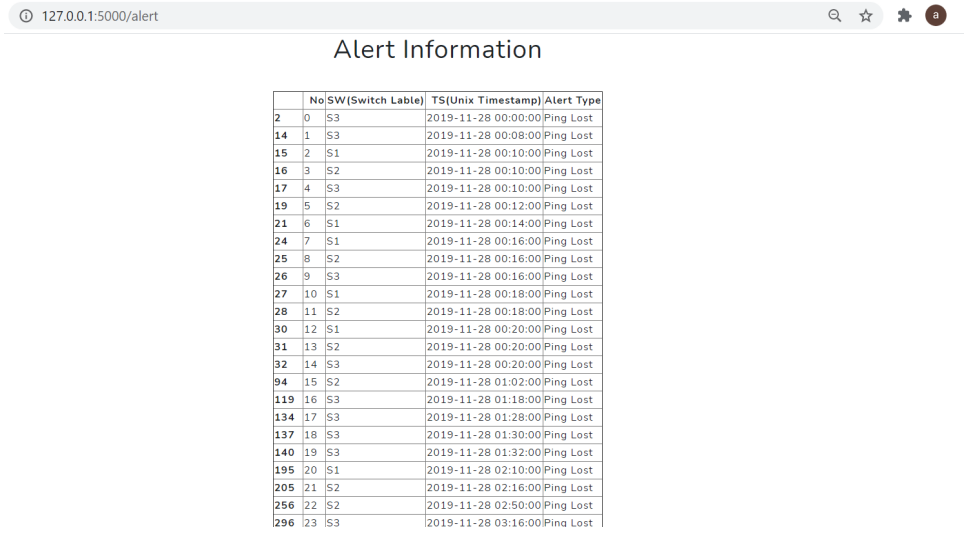
2. Python Web Application

Technology used: **Flask** Framework, **bokeh** (for charts), **pandas** for data manipulation, **HTML**, **CSS**, **JavaScript**

The ping report is divided into 2 parts:

1. Charts on a span of 12 hours describing where Ping Availability of the 3 switches
2. Alert page to report the pings that were lost

Figure 2.0: Ping Availability Screen



	No	SW(Switch Lable)	TS(Unix Timestamp)	Alert Type
2	0	S3	2019-11-28 00:00:00	Ping Lost
14	1	S3	2019-11-28 00:08:00	Ping Lost
15	2	S1	2019-11-28 00:10:00	Ping Lost
16	3	S2	2019-11-28 00:10:00	Ping Lost
17	4	S3	2019-11-28 00:10:00	Ping Lost
19	5	S2	2019-11-28 00:12:00	Ping Lost
21	6	S1	2019-11-28 00:14:00	Ping Lost
24	7	S1	2019-11-28 00:16:00	Ping Lost
25	8	S2	2019-11-28 00:16:00	Ping Lost
26	9	S3	2019-11-28 00:16:00	Ping Lost
27	10	S1	2019-11-28 00:18:00	Ping Lost
28	11	S2	2019-11-28 00:18:00	Ping Lost
30	12	S1	2019-11-28 00:20:00	Ping Lost
31	13	S2	2019-11-28 00:20:00	Ping Lost
32	14	S3	2019-11-28 00:20:00	Ping Lost
94	15	S2	2019-11-28 01:02:00	Ping Lost
119	16	S3	2019-11-28 01:18:00	Ping Lost
134	17	S3	2019-11-28 01:28:00	Ping Lost
137	18	S3	2019-11-28 01:30:00	Ping Lost
140	19	S3	2019-11-28 01:32:00	Ping Lost
195	20	S1	2019-11-28 02:10:00	Ping Lost
205	21	S2	2019-11-28 02:16:00	Ping Lost
256	22	S2	2019-11-28 02:50:00	Ping Lost
296	23	S3	2019-11-28 03:16:00	Ping Lost

Figure 2.1: Alert Report