

Server Information Analysis

Web Tool

User Manual

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Problem Statement :

The problem statement here states the needs for the administrators of different departments as the expected users for the tool are these administrators.

This tool is basically for the need of the administrators who analyze the server's databases frequently.

The problem statement is that the user wants a way to -

1. Analyze the trend of the databases of different server's on the four parameters:
 - CPU and Memory Usage
 - Top Queries which are expensive in terms of Memory and CPU Usage
 - Analyze the Temp DB size Growth
 - Find the multiple sessions going on for every different User ID
2. View the live information of the server's database by running some pre-defined queries on the server selected.
3. Also, output all the data fetched and output shown in an excel file

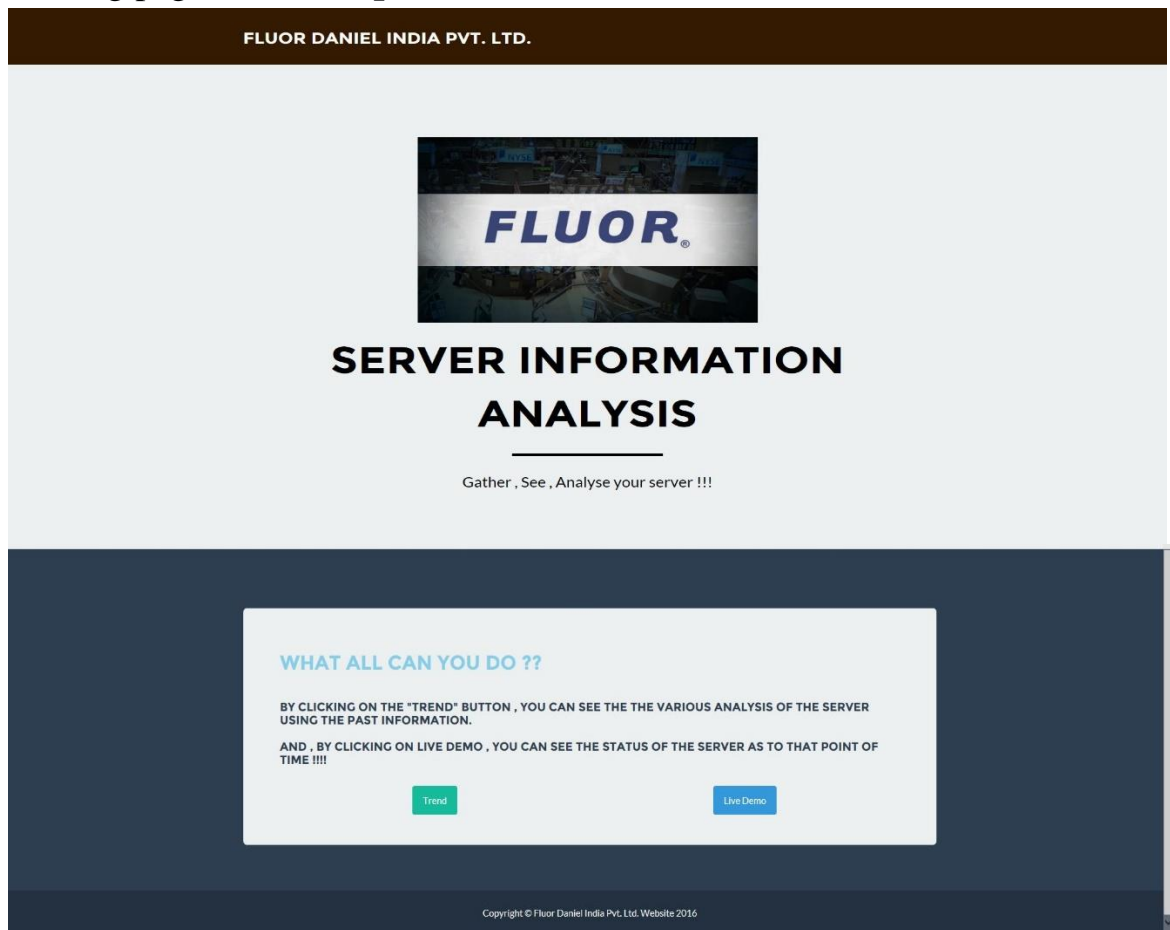
Solution Provided :

A web tool is been presented as a solution in accordance to the problem stated earlier.

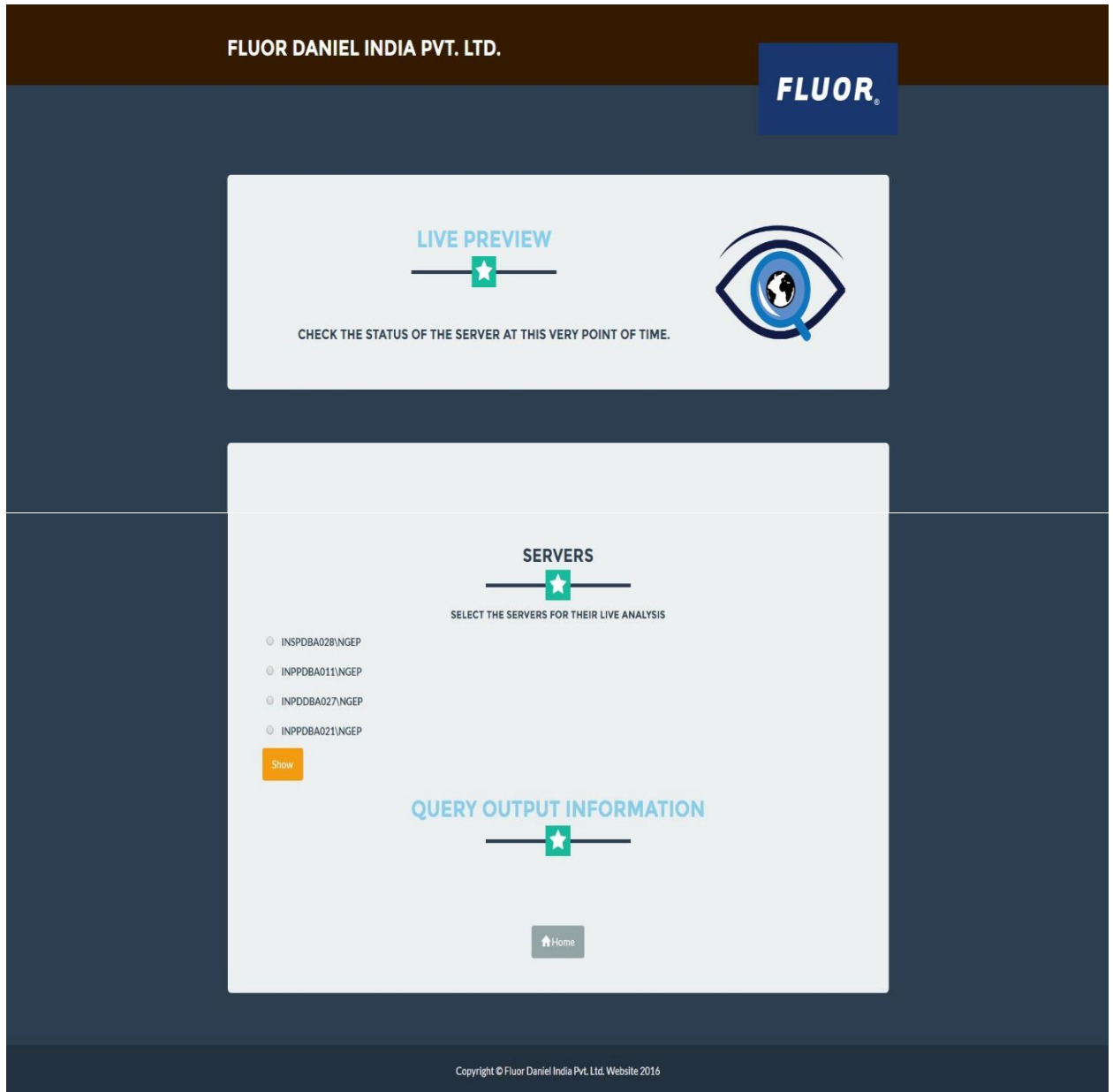
To use the tool easily without any difficulties , follow the steps given below.

Steps to Follow :

1. First run the web tool so that an IP and Port is assigned.
2. Now open your browser. Make sure JavaScript is installed and it is not very outdated.
3. Now enter the IP with the port number in order to view the web-site on the browser.
4. Starting page – **index.aspx**



5. This page does nothing except providing links to the Live View page as well as the Trend Analysis Page.
6. If clicked on the **Live Demo** button, you will be directed to the “demo.aspx” page where you can view the live state of the server.
7. When the Live Demo page loads, it first fetches a list of servers and display it to the user so that the user can select only one of them to analyze.



8. On choosing a server and then clicking on the “**Show**” button, the web tool will start working to run and fetch queries and output the data to the user in the form of tables.

SERVERS

SELECT THE SERVERS FOR THEIR LIVE ANALYSIS

☐ INSPDBA028\NGEP

☐ INPPDBA011\NGEP

☒ INPDDBA027\NGEP

☐ INPPDBA021\NGEP

Show

QUERY OUTPUT INFORMATION

QUERY INFORMATION 1

Query Name : Multiple Sessions

DB Table Name : sys.dm_exec_sessions

Column Information : N/A

Active : N/A

OUTPUT :

login_name	session_count
FDNET\bat96422	6
FDNET\gar24356	6
FDNET\sha38475	1
FDNET\son14344	1
FDNET\SQLServerService	12
sa	24
TIV_MON	1

QUERY INFORMATION 2

Query Name : Temp File Growth

DB Table Name : tempdb.sys.database_files

Column Information : N/A

Active : N/A

OUTPUT :

FileName	FileSizeinMB	AutogrowthStatus	GrowthValue	GrowthIncrement
tempdev	2048.000000	Autogrowth is on.	10	Growth value is a percentage.
templog	373.875000	Autogrowth is on.	10	Growth value is a percentage.
tempdev1	2048.000000	Autogrowth is on.	10	Growth value is a percentage.

Export to Excel

Home

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9. Once this done, you also have an option to store the information displayed in an excel file which , when clicked on the “**Export to Excel**” button, will be downloaded to you.

10.The output in the Excel file would be like this

The screenshot displays the "Live View And Analysis Report" window in SQL Server Enterprise Manager. The title bar reads "SQL Server - LIVE VIEW AND ANALYSIS REPORT". Below the title bar is a dark blue header area containing the word "FLUOR" in white, bold letters.

The main body of the report contains the following text:

This is a Report File of the live view and analysis of the server - INPDDBA027\NGEP

Content :-

- [Multiple Sessions](#)
- [Temp File Growth](#)
- [Expensive Queries](#)
- [Memory and CPU Usage](#)
- [Summary](#)

At the bottom of the screen, there is a navigation pane with tabs labeled "Content", "Multiple Sessions", "Temp File Growth", "Expensive Queries", "Memory and CPU Usage", and "Summary". The "Content" tab is currently selected.

want in the output as well as select the start dates as well as the end dates between which you want the analyze.

FLUOR DANIEL INDIA PVT. LTD.

FLUOR

SERVER INFORMATION ANALYSIS

THIS SITE WITH SHOW THE ANALYTIC CHARTS OF THE SERVER INFORMATION AVAILABLE.



ANALYSIS

☒

INPPDBA011\NGEP

XY-Scatter Chart

05/29/2016

06/27/2016

☐

INPDDBA027\NGEP

BarChart

Start Date

End Date

☒

XYZ

LineChart

06/28/2016

07/20/2016

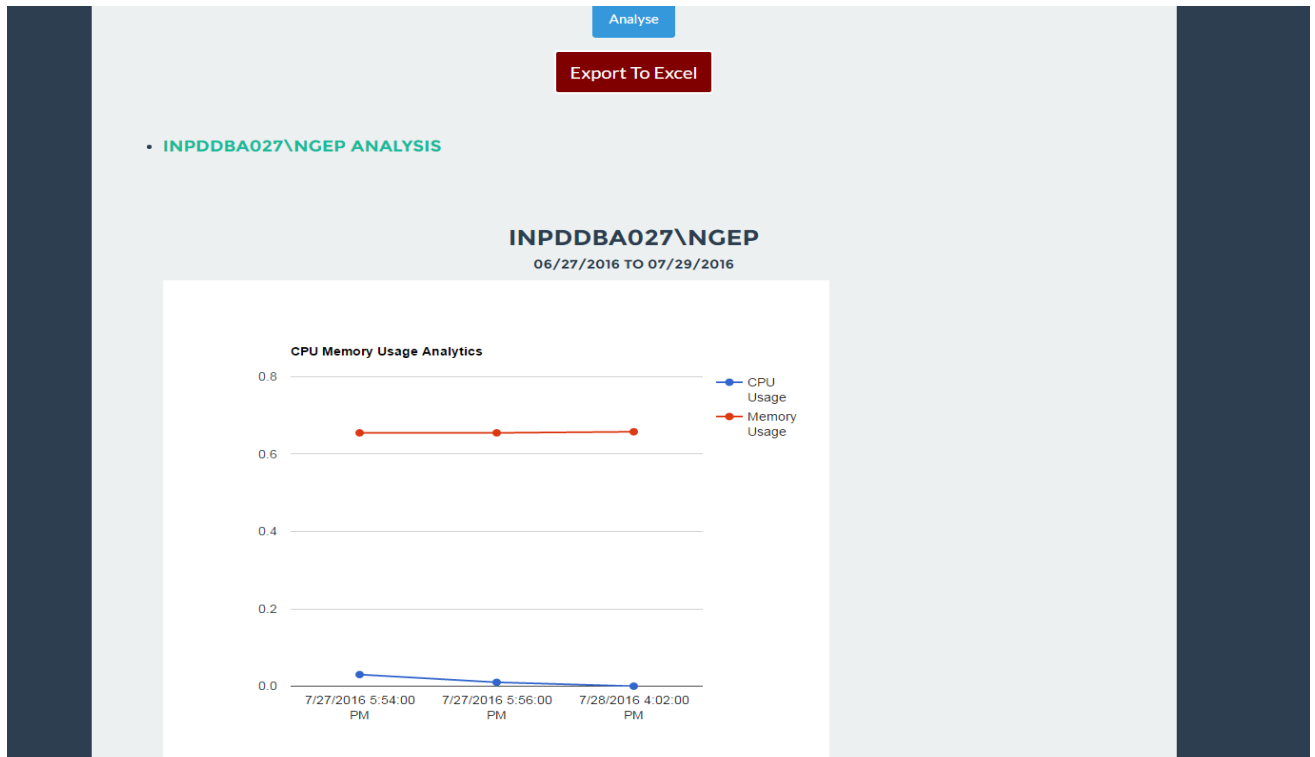
Analyse

« July 2016

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Home

14. Once clicked on the **Analyze** button, the web tool will start working and output the analysis in the following format –



Time_Stamp	EQ_Session_ID	EQ_Host_Name	EQ_Login_Name	EQ_DB_Name	EQ_Memory_Usage	EQ_Logical_Reads	EQ_Text
7/27/2016 5:54:00 PM	67	IN0006816635	FDNET\sha38475	Dev_Server	0	0	SELECT TOP 10 x.session_id, HOST_NAME, PROGRAM_NAME, LOGIN_NAME, DB_NAME(database_id) AS DB, y.STATUS, MEMORY_USAGE, y.CPU_TIME AS CPU_TIME_ms, y.TOTAL_ELAPSED_TIME AS DURATION_ms, y.LOGICAL_READS, TEXT FROM SYS.DM_EXEC_SESSIONS x inner join sys.dm_exec_requests y on x.session_id = y.session_id cross apply sys.dm_exec_sql_text (sql_handle) ORDER BY y.CPU_TIME DESC
7/27/2016 5:56:00 PM	67	IN0006816635	FDNET\sha38475	Dev_Server	0	0	SELECT TOP 10 x.session_id, HOST_NAME, PROGRAM_NAME, LOGIN_NAME, DB_NAME(database_id) AS DB, y.STATUS, MEMORY_USAGE, y.CPU_TIME AS CPU_TIME_ms, y.TOTAL_ELAPSED_TIME AS DURATION_ms, y.LOGICAL_READS, TEXT FROM

15. Now, if clicked on “**Export To Excel**” button, the output’s which were displayed will be stored in Excel file and downloaded to you.

Trend Analysis Sheet					
Server Name -	INPDDBA027\NGEP				
Initial Date of analysis -	06/27/2016				
Final Date of Analysis -	07/29/2016				
Time_Stamp	CPU Usage	Memory Usage			
7/27/2016 5:54:00 PM	0.03	0.655041016419443			
7/27/2016 5:56:00 PM	0.01	0.655034340492311			
7/28/2016 4:02:00 PM	0	0.657872563226991			

16.If clicked on home, you will be directed back to the home page.

Achievements :

1. The burden from the administrators is taken off.
2. Their task is made easy.
3. Their time is saved.
4. The analysis report is created automatically.