UNIVERSITY OF Baguio

SCHOOL OF INFORMATION AND TECHNOLOGY

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Section:IDC1	DATE SUBMITTED: 10/16/24	

SYSADM1 – Web Server Monitoring

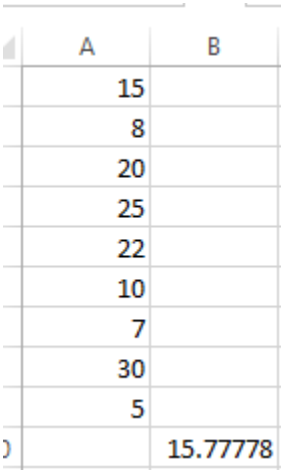
1. **How do you monitor web server statistics?**
   - **Using server monitoring tools such as Prometheus and through the use of built-in server status page like http://yourserver.com/server-status. Also by analyzing the server logs like the access log or error log.**
2. **What are the key metrics that you need to monitor in a web server?**
   - **CPU usage/Memory usage/Disk utilization/Response Time/Error Rate.**
3. **Analyze the provided web server statistics to determine what is being asked for below.**

Date	Time	Request Method	URL	Response Code	Response Time (ms)	CPU Usage (%)	Memory Usage (MB)
2023-10-10	10:00:01	GET	/index.html	200 OK	250	15	100
2023-10-10	10:00:02	GET	/images/logo.png	200 OK	50	8	50
2023-10-10	10:00:03	POST	/login	200 OK	300	20	120
2023-10-10	10:00:04	GET	/products	200 OK	400	25	150
2023-10-10	10:00:05	GET	/products/123	200 OK	350	22	130
2023-10-10	10:00:06	GET	/styles.css	200 OK	100	10	60
2023-10-10	10:00:07	GET	/images/error.png	404 Not Found	150	7	40
2023-10-10	10:00:08	POST	/contact	500 Internal Server Error	5000	30	200
2023-10-10	10:00:09	GET	/favicon.ico	200 OK	50	5	30

A. **Average response time: 738 ms**

	A
1	250
2	50
3	300
4	400
5	350
6	100
7	150
8	5000
9	50
10	738.8889

B. **Request per second: 1**
C. **Memory usage: 15%**



	A	B
	15	
	8	
	20	
	25	
	22	
	10	
	7	
	30	
	5	
)		15.77778

D. **Error rate: 22%**

404 not found/500 internal server error => (errors responses / total requests) * 100% => 2/9 * 100% = 22.22%

E. **Common error types: 404 not found/500 internal server error**

4. **What are the possible issues in the web server statistics above?**

- **High memory and CPU usage and response time**

Grading Rubric

Criteria	Points	Description
Monitoring methods	10	Demonstrates understanding of various methods for monitoring web server statistics (e.g., using tools, server logs, performance counters).
Key Metrics	10	Identifies the correct key metrics to monitor (e.g., response time, traffic, error rates, resource usage).
Data Analysis	30	Accurately calculates average response time, requests per second, memory usage, error rate, and identifies common error types.
Issues Identification	10	Accurately identifies potential issues based on the analyzed statistics (e.g., high error rates, resource constraints).
Total	/60	