Activity : Log Analysis

Part I: Can you find people trying to break into the servers?

Q1

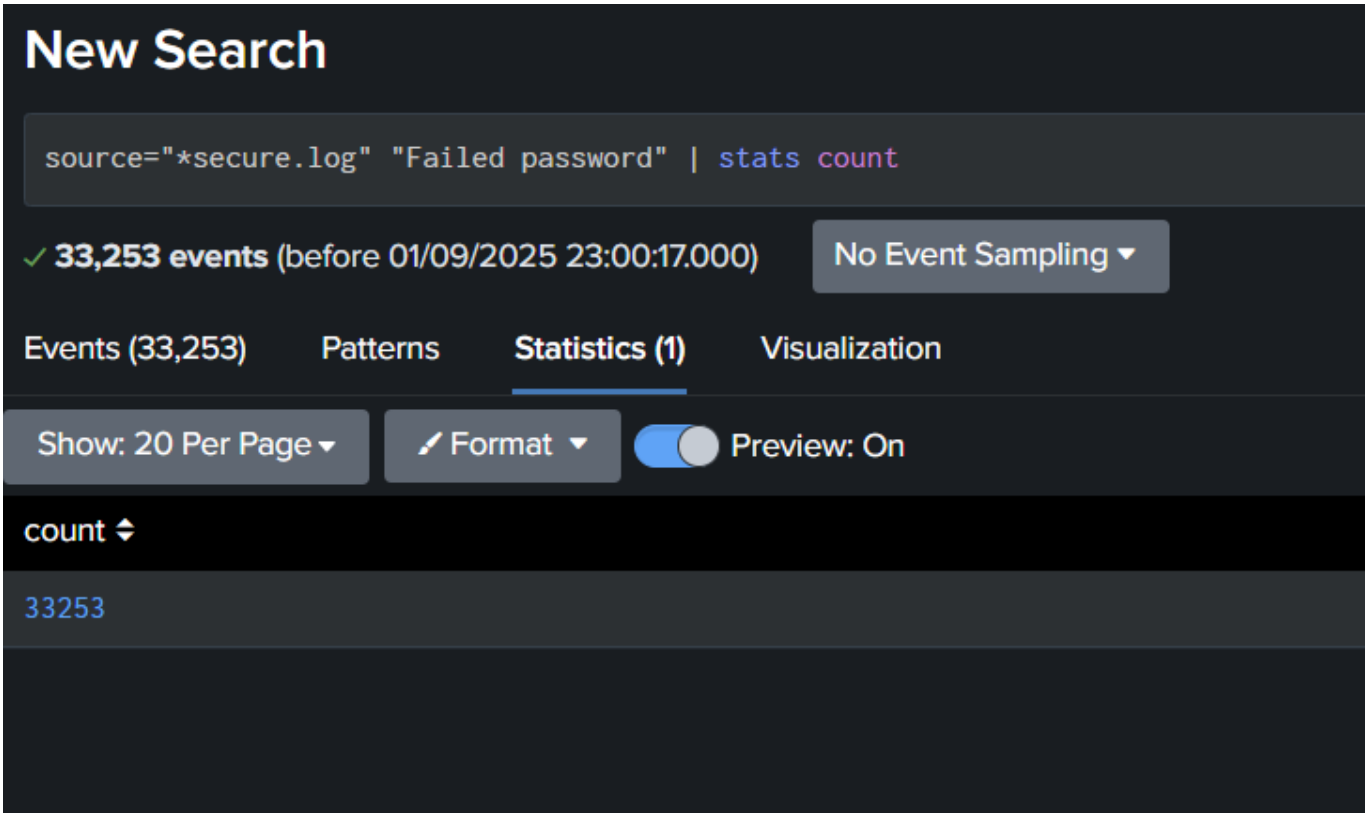
How many hackers are trying to get access to our servers? And how many attempts are there? Explain/define how you count distinct hackers.

Answer 33253 Attempts, 185 Hackers

Splunk Search Command:

Attempts

```
source="*secure.log" "Failed password" | stats count
```



Unique Hackers

```
source="*secure.log" "Failed password" | rex "from (?<src_ip>\S+) port" | stats
dc(src_ip)
```

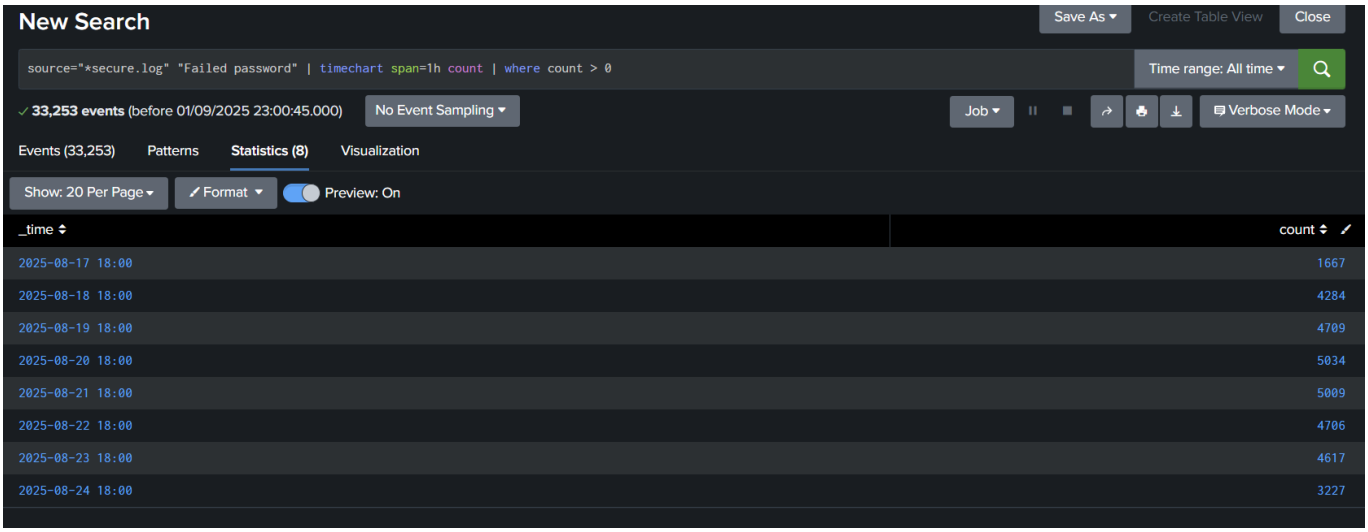
Q2

What time do hackers appear to try to hack our servers?

Answer 2025-08-17 to 2025-08-24 at 18:00

Splunk Search Command:

```
source="*secure.log" "Failed password" | timechart span=1h count | where count > 0
```



Results: [Describe the time patterns you observe - peak hours, consistent timing, etc.]

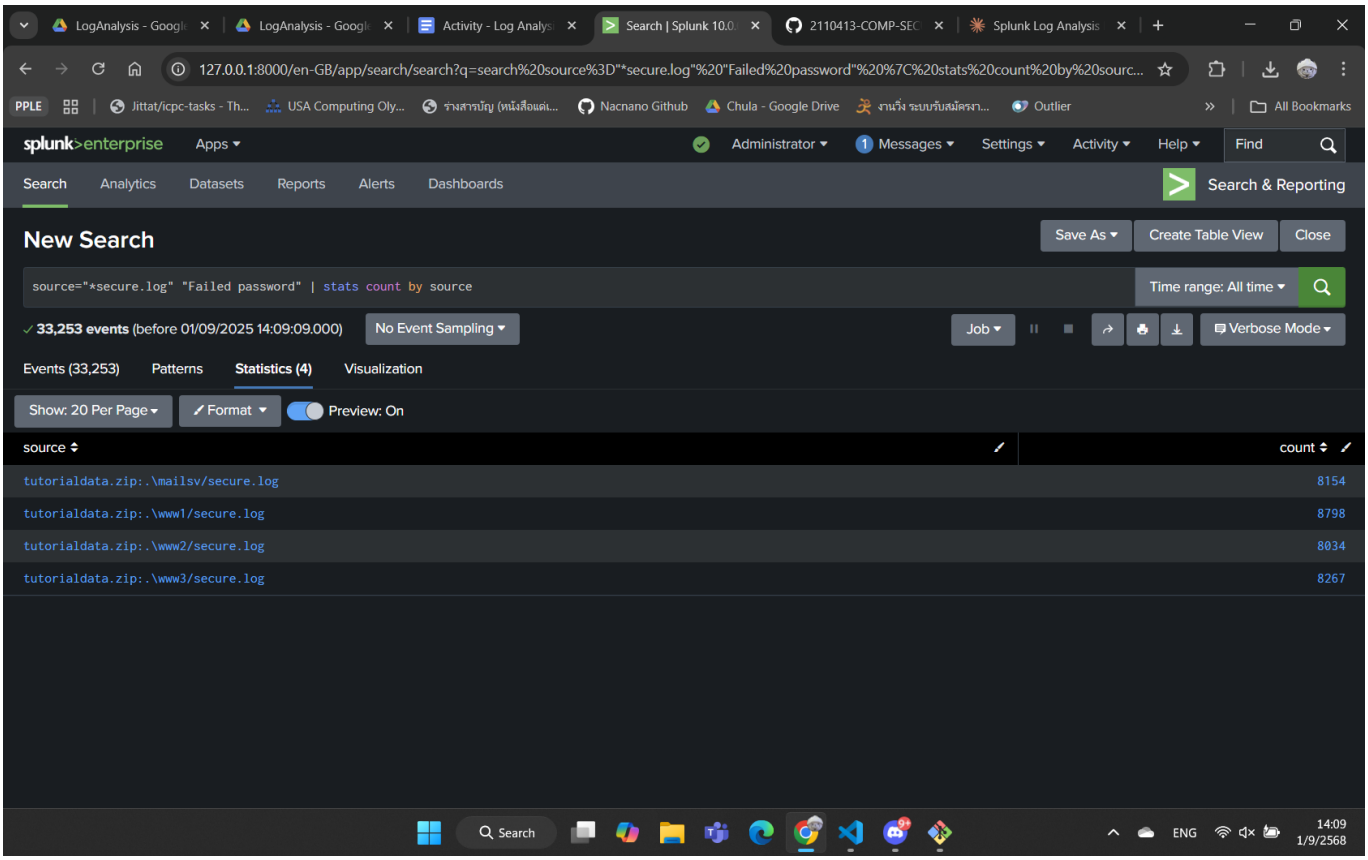
Q3

Which server (mailsv, www1, www2, www3) had the most attempts?

Answer www1

Splunk Search Command:

```
source="*secure.log" "Failed password" | stats count by source
```



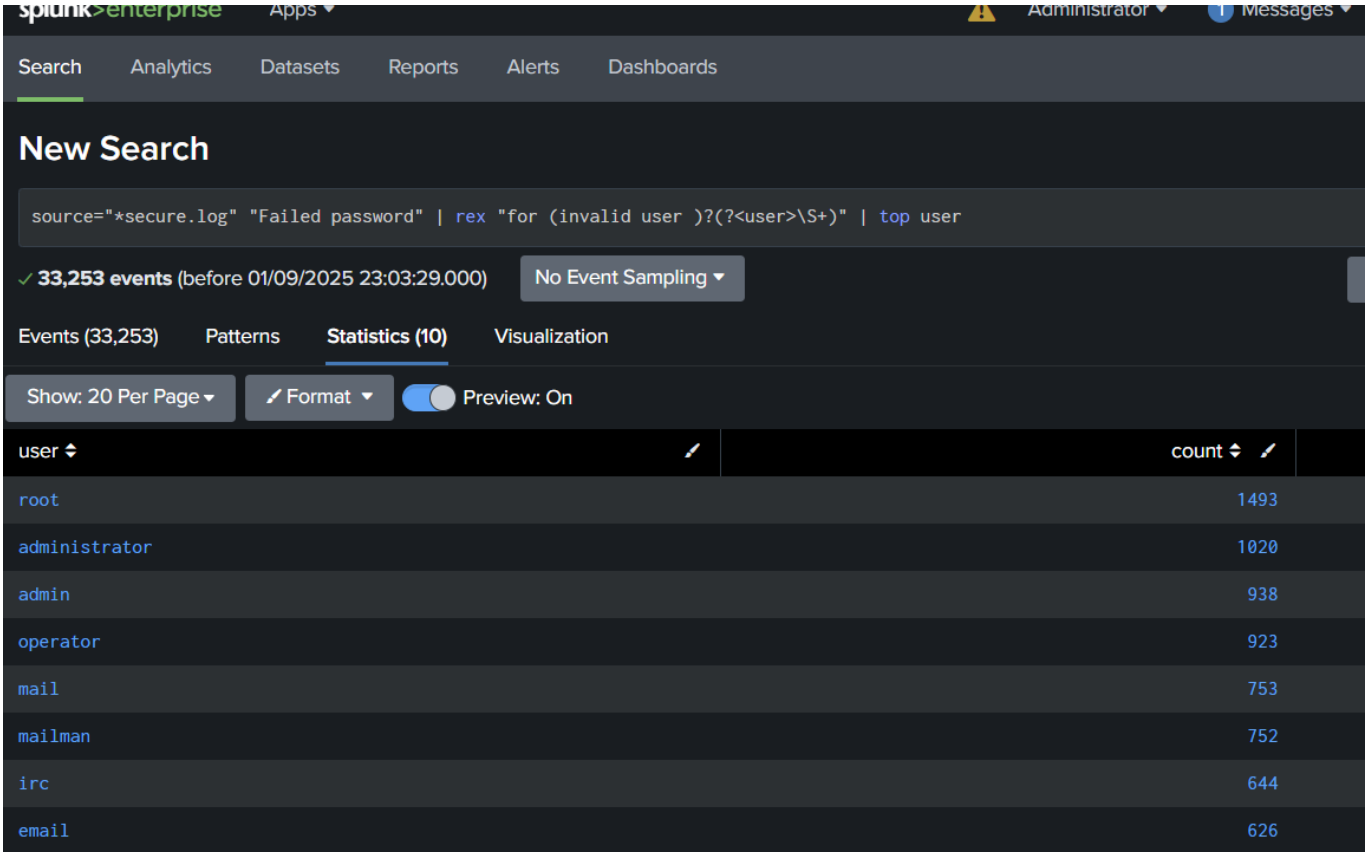
Q4

What is the most popular account that hackers use to try to break in?

Answer Root

Splunk Search Command:

```
source="*secure.log" "Failed password" | rex field=_raw "user (?<username>\w+)" |
stats count by username | sort -count | head 20
```



Part II: Sensitive Files on Web Servers

Q5

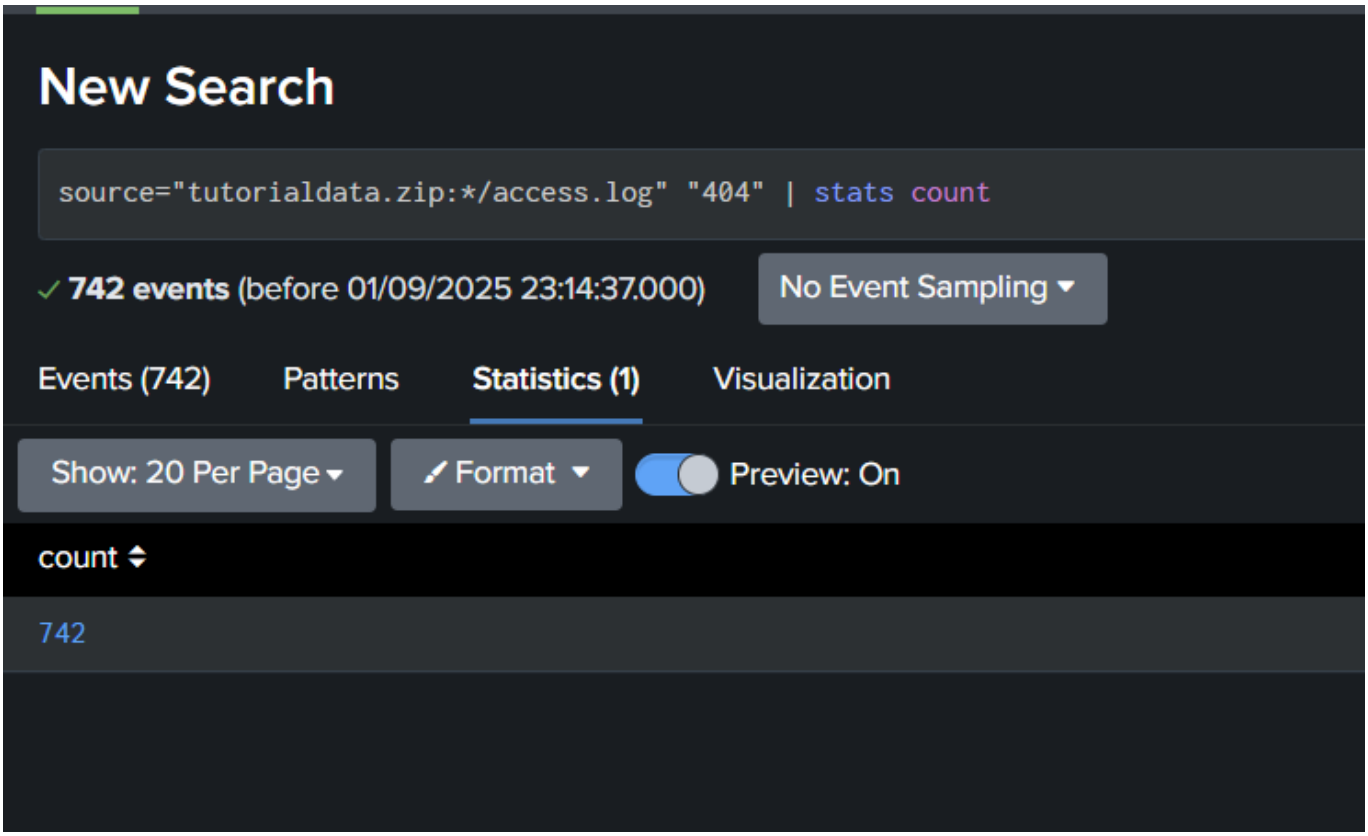
Can you find attempts to get access to sensitive information from our web servers? How many attempts were there?

Answer 742 Attempts with 404 Status,

Splunk Search Commands:

Attempts

```
source="tutorialdata.zip:*/access.log" "404" | stats count
```



Q6

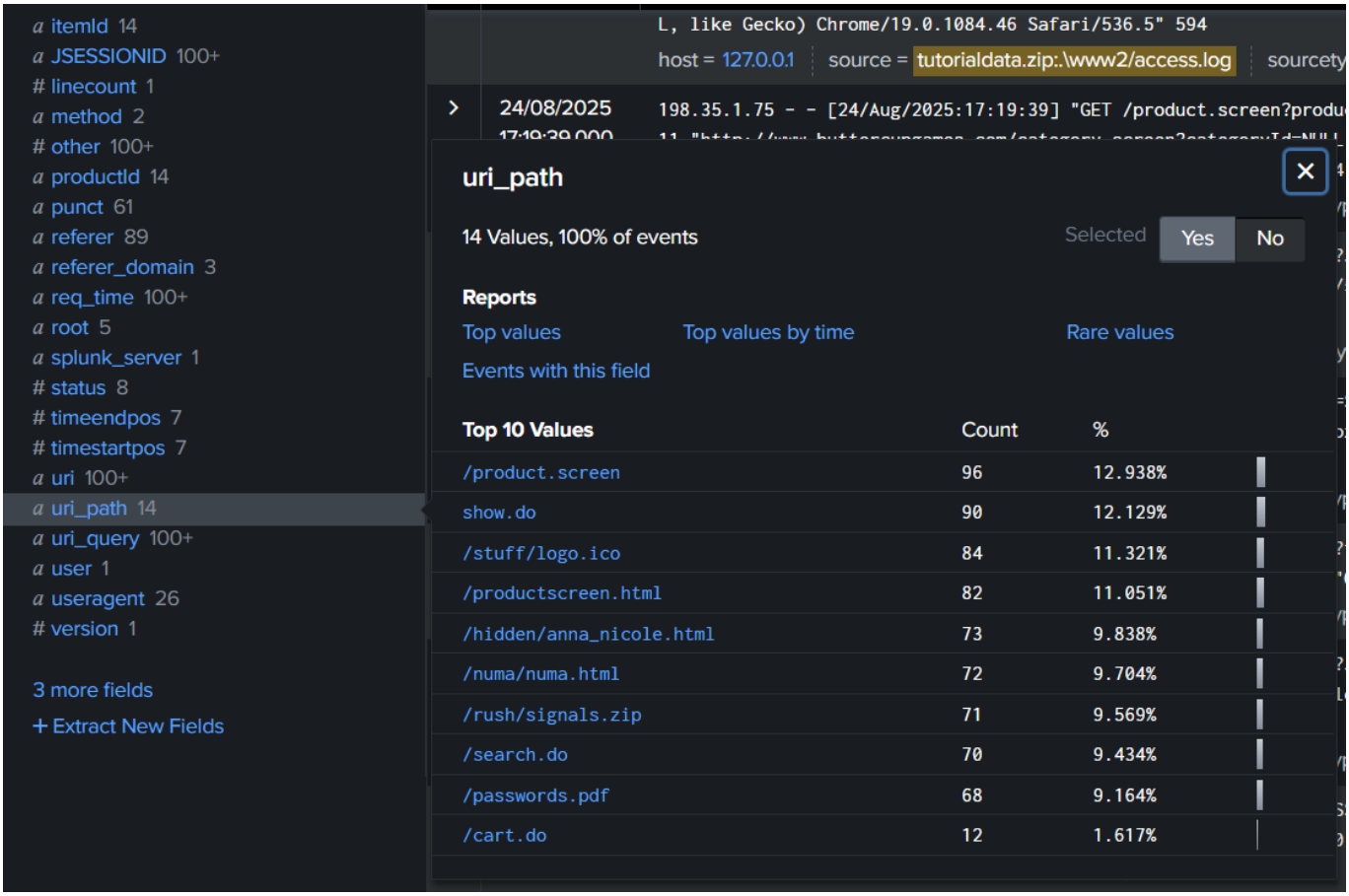
What resource/file are hackers looking for?

Answer password.pdf, /hidden/anna_nicole.html

Splunk Search Command:

```
source="tutorialdata.zip:*/access.log" "404" | stats count
```

Sensitive Information (find using uri_path)



Part III: Are there bots crawling our websites?

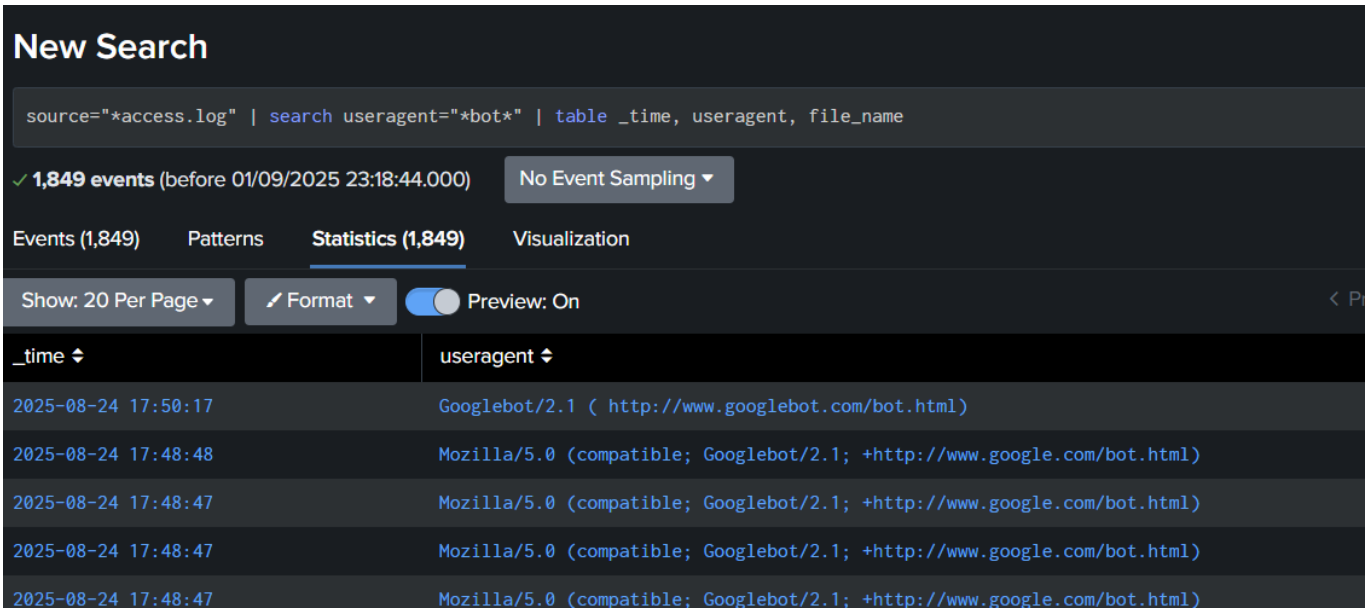
Q7

Can you find any bots crawling our websites?

Answer Googlebot/2.1 (http://www.googlebot.com/bot.html)

Splunk Search Command:

```
source="*access.log" | search useragent="*bot*" | table _time, useragent,
file_name
```



Q8

What are they doing on the site? (Hint: Look for User-Agent in the web access.logs.)

Answer Indexing for Google search

Splunk Search Command:

```
source="*access.log" useragent="*bot*" | stats count by uri_path, useragent | sort -count
```
