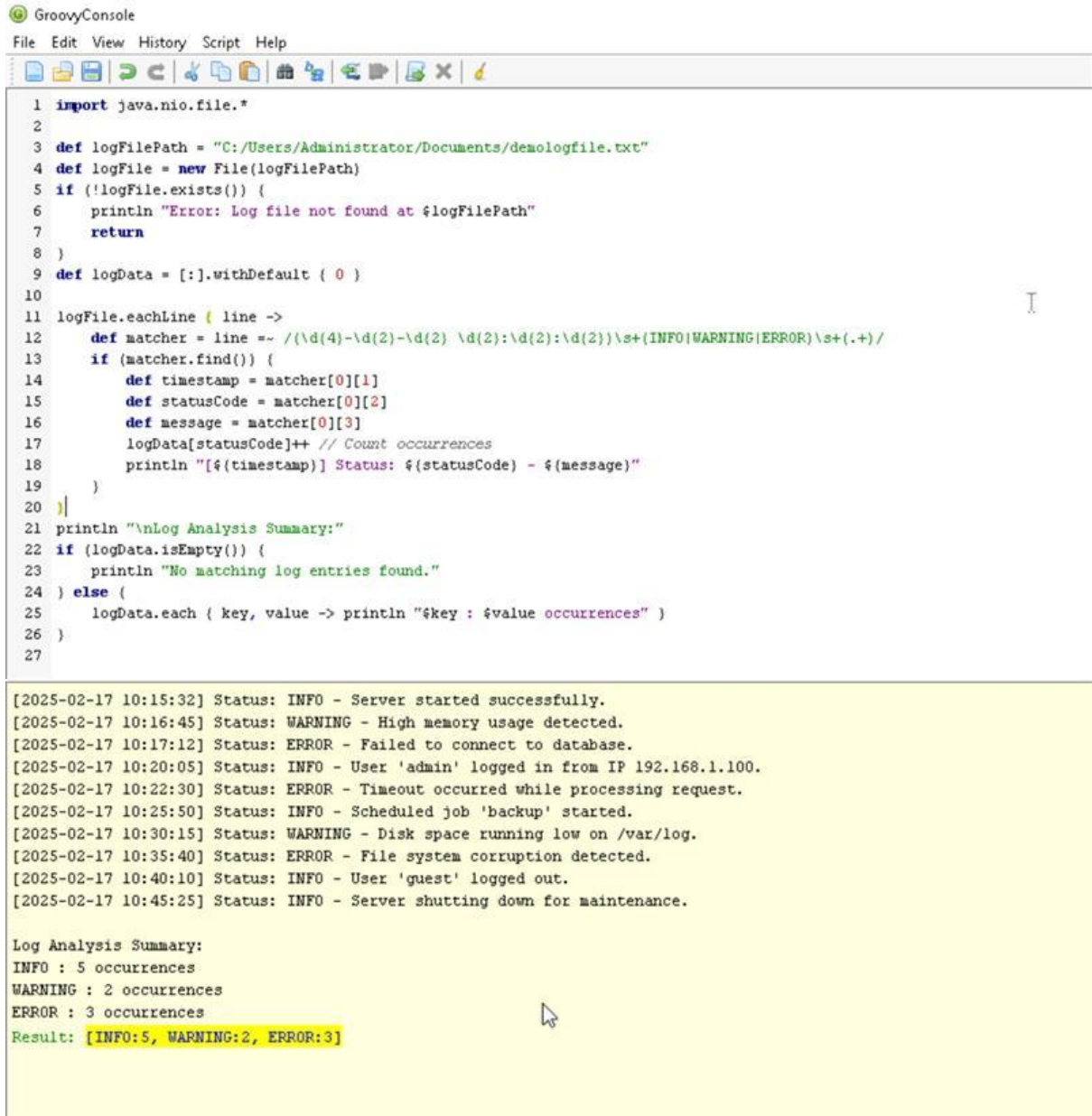


GROOVY-CASE STUDIES

1. Log File Analysis & Monitoring with Groovy.



The screenshot shows a Groovy script in a console window titled "GroovyConsole". The script is designed to analyze a log file located at "C:/Users/Administrator/Documents/demologfile.txt". It uses a regular expression to parse log entries in the format "[timestamp] Status: {INFO|WARNING|ERROR} {message}". The script counts the occurrences of each status (INFO, WARNING, ERROR) and prints a summary at the end.

```
1 import java.nio.file.*
2
3 def logFilePath = "C:/Users/Administrator/Documents/demologfile.txt"
4 def logFile = new File(logFilePath)
5 if (!logFile.exists()) {
6     println "Error: Log file not found at $logFilePath"
7     return
8 }
9 def logData = [:].withDefault { 0 }
10
11 logFile.eachLine { line ->
12     def matcher = line =~ /\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{2}\s+(INFO|WARNING|ERROR)\s+(.+)/
13     if (matcher.find()) {
14         def timestamp = matcher[0][1]
15         def statusCode = matcher[0][2]
16         def message = matcher[0][3]
17         logData[statusCode]++ // Count occurrences
18         println "[${timestamp}] Status: ${statusCode} - ${message}"
19     }
20 }
21 println "\nLog Analysis Summary:"
22 if (logData.isEmpty()) {
23     println "No matching log entries found."
24 } else {
25     logData.each { key, value -> println "$key : $value occurrences" }
26 }
27
```

The output of the script shows the following log entries and their counts:

```
[2025-02-17 10:15:32] Status: INFO - Server started successfully.
[2025-02-17 10:16:45] Status: WARNING - High memory usage detected.
[2025-02-17 10:17:12] Status: ERROR - Failed to connect to database.
[2025-02-17 10:20:05] Status: INFO - User 'admin' logged in from IP 192.168.1.100.
[2025-02-17 10:22:30] Status: ERROR - Timeout occurred while processing request.
[2025-02-17 10:25:50] Status: INFO - Scheduled job 'backup' started.
[2025-02-17 10:30:15] Status: WARNING - Disk space running low on /var/log.
[2025-02-17 10:35:40] Status: ERROR - File system corruption detected.
[2025-02-17 10:40:10] Status: INFO - User 'guest' logged out.
[2025-02-17 10:45:25] Status: INFO - Server shutting down for maintenance.

Log Analysis Summary:
INFO : 5 occurrences
WARNING : 2 occurrences
ERROR : 3 occurrences
Result: [INFO:5, WARNING:2, ERROR:3]
```

2. Web Scrapping & Data Extraction with Groovy & Jsoup.

GroovyConsole

File Edit View History Script Help

```
1 @Grab(group='org.jsoup', module='jsoup', version='1.15.3')
2 import org.jsoup.Jsoup
3
4 def topic = "IPL" // Change to any topic
5 def url = "https://en.wikipedia.org/wiki/${topic}"
6 def doc = Jsoup.connect(url)
7     .userAgent("Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/119.0.0.0 Safari/537.36")
8     .get()
9
10 def summary = doc.select("p")
11     .find { it.text().trim() }
12     ?.text() ?: "No content found."
13
14 println "Wikipedia Sumaary of ${topic.replace('_', ' ')}.\\n$summary"
15
```

Wikipedia Summary of IPL:

The Indian Premier League, known as IPL and called Tata IPL for sponsorship reasons, is a men's T20 cricket league held annually in India.[3] Founded by the BCCI in 2007, the league features ten state or city-based franchise teams.[4] It is the most popular and richest cricket league in the world and is held between March and May. It has an exclusive window in the ICC Future Tours Programme, resulting in fewer international cricket tours occurring during the IPL seasons.[5] It is also India's most viewed sports competition followed by Pro Kabaddi League & Indian Super League as per BARC.[6][7]