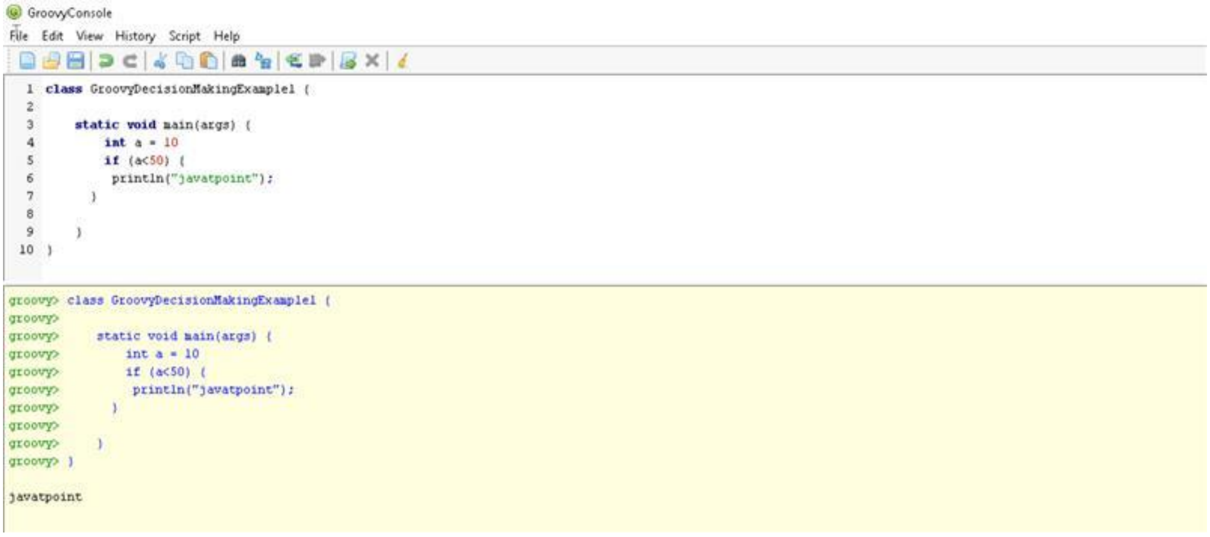
GROOVY PROJECT

DECISION MAKING:

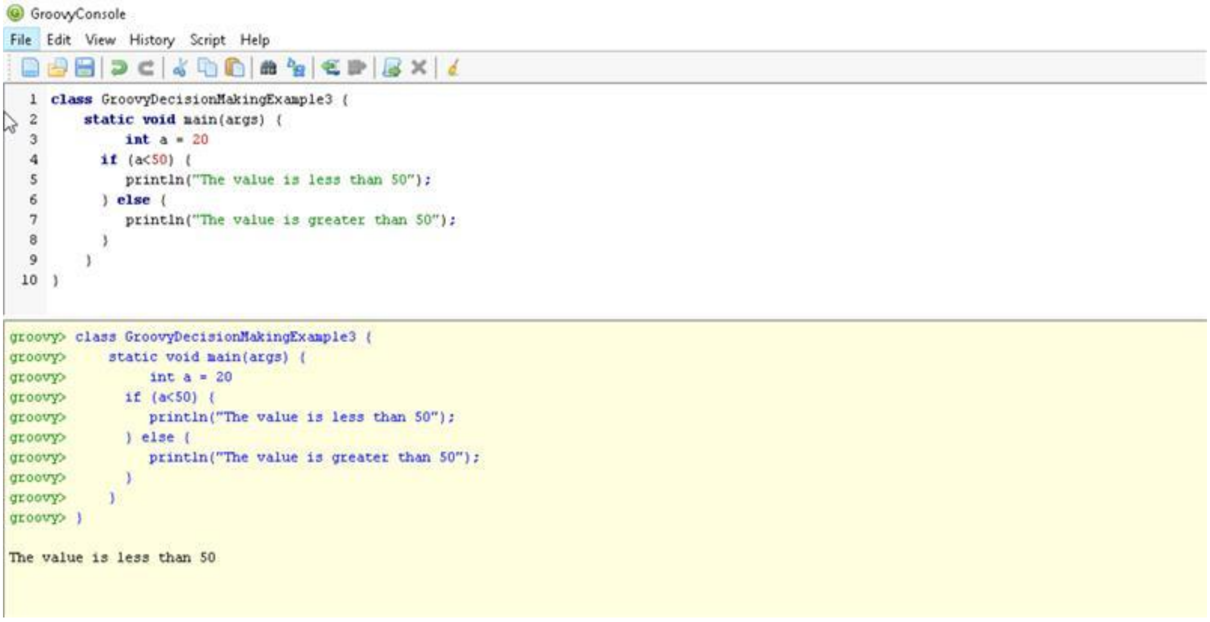
1. IF Statement:



```
class GroovyDecisionMakingExample1 {

    static void main(args) {
        int a = 10
        if (a<50) {
         println("javatpoint");
       }

     }
}
```

```
groovy> class GroovyDecisionMakingExample1 {
groovy> 
groovy>     static void main(args) {
groovy>         int a = 10
groovy>         if (a<50) {
groovy>          println("javatpoint");
groovy>        }
groovy> 
groovy>      }
groovy> }

javatpoint
```

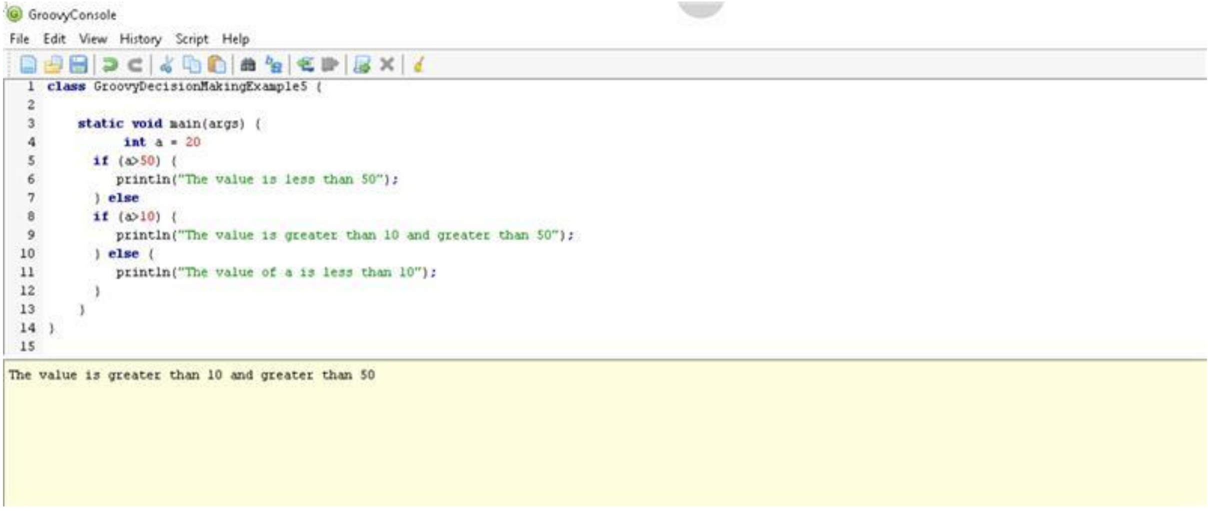
2. IF- ELSE:



```
class GroovyDecisionMakingExample3 {
    static void main(args) {
        int a = 20
      if (a<50) {
         println("The value is less than 50");
      } else {
         println("The value is greater than 50");
      }
    }
}
```

```
groovy> class GroovyDecisionMakingExample3 {
groovy>     static void main(args) {
groovy>         int a = 20
groovy>       if (a<50) {
groovy>          println("The value is less than 50");
groovy>       } else {
groovy>          println("The value is greater than 50");
groovy>       }
groovy>     }
groovy> }

The value is less than 50
```

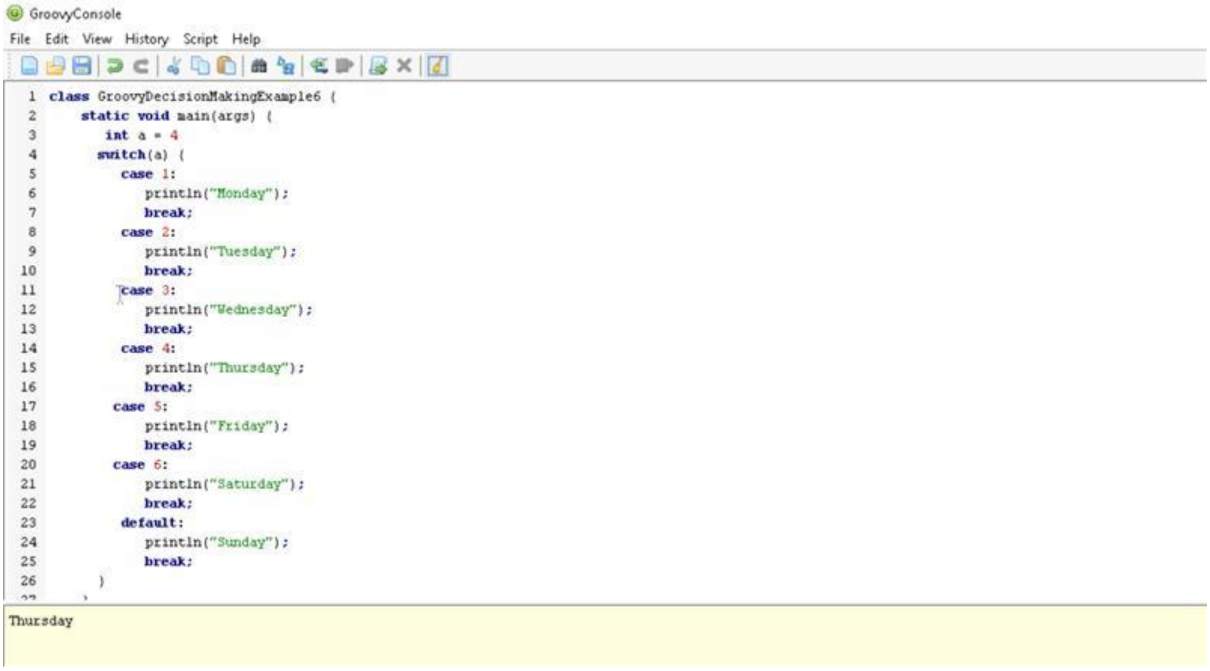
3.NESTED – IF:



```
class GroovyDecisionMakingExample5 {

    static void main(args) {
          int a = 20
      if (a>50) {
         println("The value is less than 50");
      } else
      if (a>10) {
         println("The value is greater than 10 and greater than 50");
      } else {
         println("The value of a is less than 10");
      }
    }
}
```

```
The value is greater than 10 and greater than 50
```

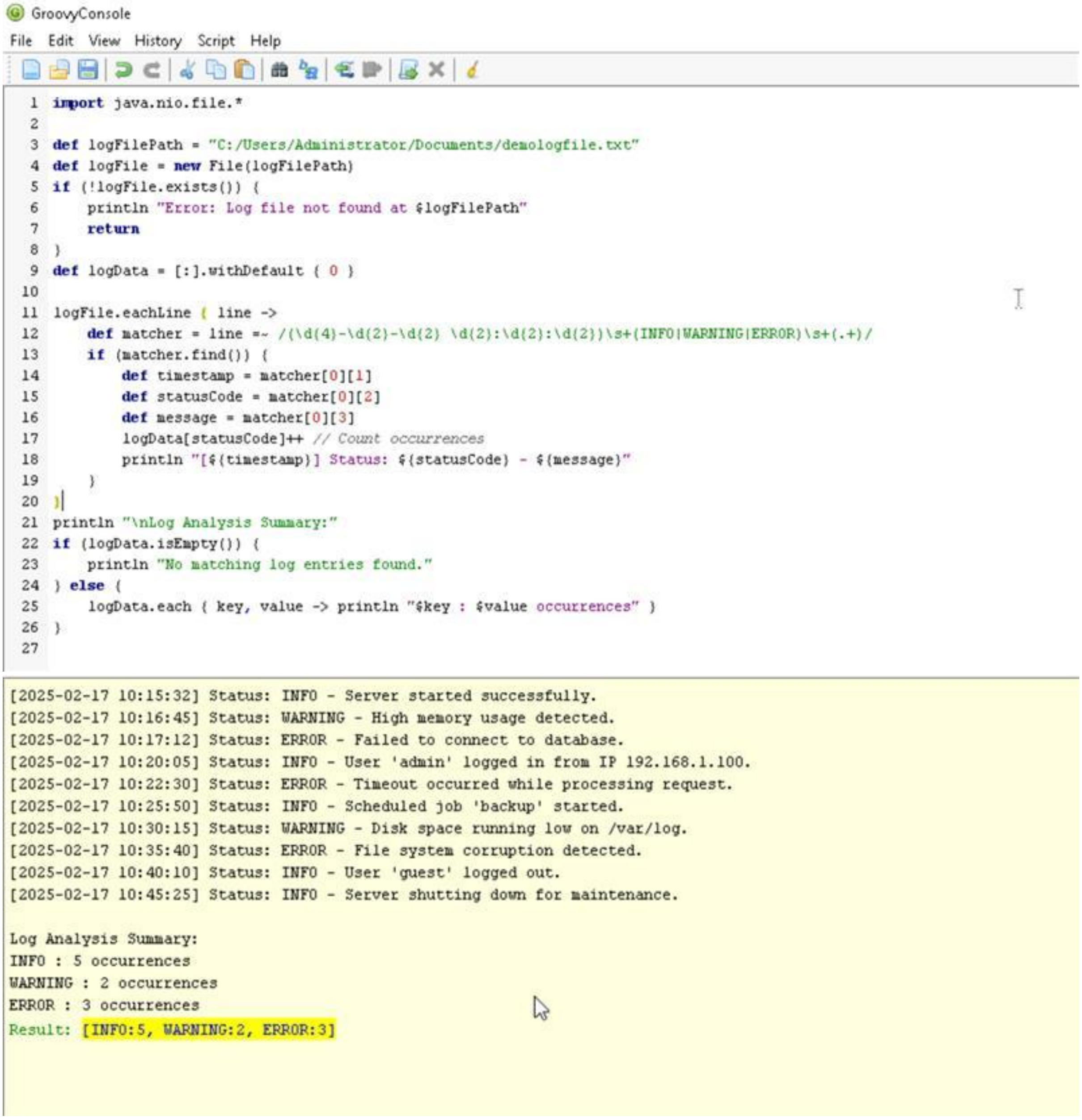
4. SWITCH STATEMENTS:



```
class GroovyDecisionMakingExample6 {
    static void main(args) {
       int a = 4
      switch(a) {
         case 1:
            println("Monday");
            break;
         case 2:
            println("Tuesday");
            break;
         case 3:
            println("Wednesday");
            break;
         case 4:
            println("Thursday");
            break;
        case 5:
            println("Friday");
            break;
        case 6:
            println("Saturday");
            break;
         default:
            println("Sunday");
            break;
      }
```

```
Thursday
```

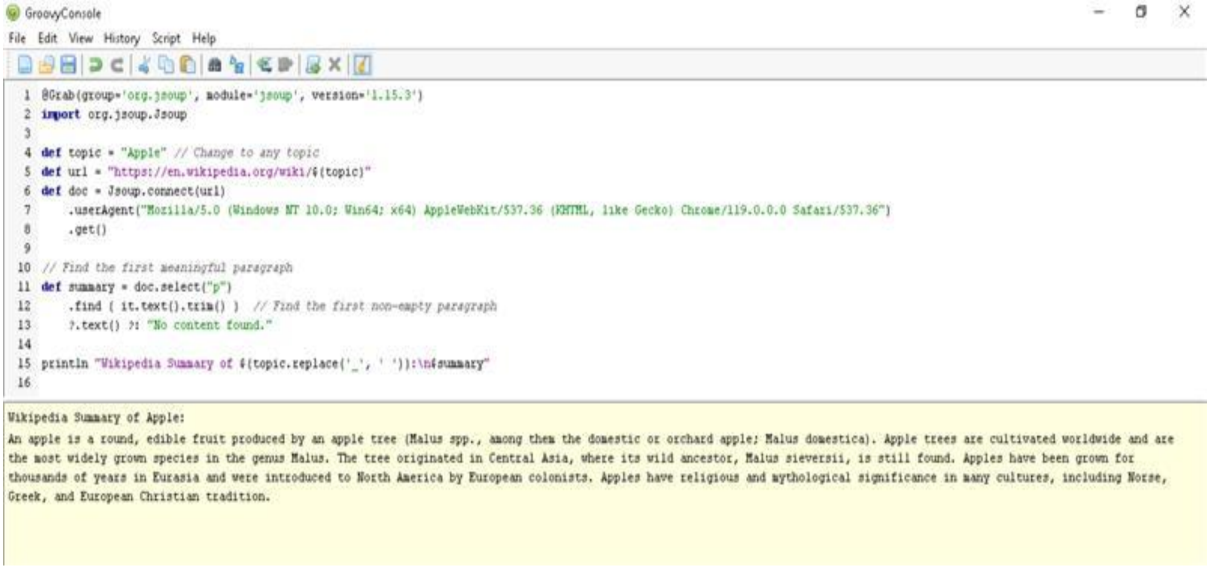
LOG FILE ANALYSER:



```groovy
import java.nio.file.*

def logFilePath = "C:/Users/Administrator/Documents/demologfile.txt"
def logFile = new File(logFilePath)
if (!logFile.exists()) {
    println "Error: Log file not found at $logFilePath"
    return
}
def logData = [:].withDefault { 0 }

logFile.eachLine { line ->
    def matcher = line =~ /(\d{4}-\d{2}-\d{2} \d{2}:\d{2}:\d{2})\s+(INFO|WARNING|ERROR)\s+(.+)/
    if (matcher.find()) {
        def timestamp = matcher[0][1]
        def statusCode = matcher[0][2]
        def message = matcher[0][3]
        logData[statusCode]++ // Count occurrences
        println "[${timestamp}] Status: ${statusCode} - ${message}"
    }
}
println "\nLog Analysis Summary:"
if (logData.isEmpty()) {
    println "No matching log entries found."
} else {
    logData.each { key, value -> println "$key : $value occurrences" }
}
```

```
[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]
```

WEB SCRAPING WITH GROOVY AND JSOUP:



```
@Grab(group='org.jsoup', module='jsoup', version='1.15.3')
import org.jsoup.Jsoup

def topic = "Apple" // Change to any topic
def url = "https://en.wikipedia.org/wiki/${topic}"
def doc = Jsoup.connect(url)
    .userAgent("Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/119.0.0.0 Safari/537.36")
    .get()

// Find the first meaningful paragraph
def summary = doc.select("p")
    .find { it.text().trim() }  // Find the first non-empty paragraph
    ?.text() ?: "No content found."

println "Wikipedia Summary of ${topic.replace('_', ' ')}:\n$summary"
```

```
Wikipedia Summary of Apple:
An apple is a round, edible fruit produced by an apple tree (Malus spp., among them the domestic or orchard apple; Malus domestica). Apple trees are cultivated worldwide and are
the most widely grown species in the genus Malus. The tree originated in Central Asia, where its wild ancestor, Malus sieversii, is still found. Apples have been grown for
thousands of years in Eurasia and were introduced to North America by European colonists. Apples have religious and mythological significance in many cultures, including Norse,
Greek, and European Christian tradition.
```