

Score: 2.500 (=100.0%)

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Napišite klasu `LogProcessor` koja treba imate sljedeći konstruktor i metode:

```
/**
 * Creates object and set file.
 * @param file file name
 */
public LogProcessor(Path file)

/**
 * Load file and populate list of loaded objects (LogEntry).
 * @throws IOException if can not load file
 */
public void load() throws IOException

/**
 * Returns list of log entries.
 * @return list of log entries
 */
public List<LogEntry> getLogs()

/**
 * Extracts elements of line and creates LogEntry.
 * @param line one line og log file
 * @return created log entry object
 */
public static LogEntry parseLog(String line)
```

Potrebno je napisati i klasu `LogEntry` koja ima konstruktor `public LogEntry(String time, String level, String thread, String text)` u kojem se inicijaliziraju svi atributi i gettere za svaki atribut. Klasa treba imati sljedeće atribute: `time`, `level`, `thread` i `text`. Svi atributi su stringovi.

Ako učitavamo sljedeći redak iz datoteke:

```
2020-05-12 05:43:10.370 INFO [AuthenticationAuthorizationManager,,,] 1 --- [main] s.c.a.AnnotationConfigApplicationContext : Some text ...
```

Dijelovi retka će biti uvijek na istim pozicijama.

iz toga treba stvoriti objekt za sljedećim vrijednostima u atributima:

- time: "2020-05-12 05:43:10.370"
- level: "INFO"
- thread: "main"
- text: "Some text ..."

Primjer korištenja:

```
Path inputFile = Path.of("log.txt");
LogProcessor processor = new LogProcessor(inputFile);
processor.load();
List<LogEntry> logs = processor.getLogs();
```

Napomena: Sve klase i sučelja imaju vidljivost postavljenu na *package private*.

Napomena: Prije predaje iz Vašeg koda izbacite sve ispise na standardni izlaz kako bi testovi ispravno radili.

Student's answer:

```
1 import java.io.IOException;
2 import java.nio.file.Files;
3 import java.nio.file.Path;
4 import java.util.LinkedList;
5 import java.util.List;
6
7 class LogProcessor {
8     private Path file;
9     private List<LogEntry> list = new LinkedList<>();
10    /**
11     * Creates object and set file.
12     * @param file file name
13     */
14    public LogProcessor(Path file) {
15        this.file = file;
16    }
17
18    /**
19     * Load file and populate list of loaded objects (LogEntry).
20     * @throws IOException if can not load file
21     */
22    public void load() throws IOException {
23        if(!Files.exists(file)) {
24            throw new IOException();
25        }
26        List<String> lines = Files.readAllLines(file);
27        for(String line : lines) {
28            if(line.length() > 0) list.add(parseLog(line));
29        }
30    }
31
32    /**
33     * Returns list of log entries.
34     * @return list of log entries
35     */
36    public List<LogEntry> getLogs() {
37        return list;
38    }
39
40    /**
41     * Extracts elements of line and creates LogEntry.
42     * @param line one line og log file
43     * @return created log entry object
44     */
45    public static LogEntry parseLog(String line) {
46        String[] data = line.split("\\s+");
47        String time = data[0] + " " + data[1];
48        String level = data[2];
49        // 3 , 4 , 5 , 6 preskacem
50        line = line.substring(line.indexOf("[") + 1);
51        String thread = line.substring(line.indexOf("[") + 1, line.indexOf(")"));
52        // 8 , 9 preskacem
53
54        String text = line.substring(line.lastIndexOf(":") + 1).trim();
55        return new LogEntry(time, level, thread, text);
56    }
57 }
58
59 class LogEntry {
60     private String time;
61     private String level;
62     private String thread;
63     private String text;
64
65     public LogEntry(String time, String level, String thread, String text) {
66         this.time = time;
67         this.level = level;
68         this.thread = thread;
69         this.text = text;
70     }
71
72     public String getTime() {
73         return time;
74     }
75
76     public String getLevel() {
77         return level;
78     }
79
80     public String getThread() {
81         return thread;
82     }
83
84     public String getText() {
85         return text;
86     }
87 }
88 }
89
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```

Correct answer:

```
1 This test does not have "show solutions" option enabled.
```

Hint: Correct. Well done!

Exam results obtained during submission evaluation:

#	stdin	stdout	expected	stderr	percentage	hint	mode	correct?
1	loading	OK	OK	EdgarLibrary v0.11.1	30.00	Correct. Well done!	check elements order : false, case sensitive : false, ignore whitespace : true	true
2	checking	OK	OK	EdgarLibrary v0.11.1	30.00	Correct. Well done!	check elements order : false, case sensitive : true, ignore whitespace : true	true
3	parsing	OK	OK	EdgarLibrary v0.11.1	40.00	Correct. Well done!	check elements order : false, case sensitive : true, ignore whitespace : true	true

Student's result

Correct result

Rerun student's code