

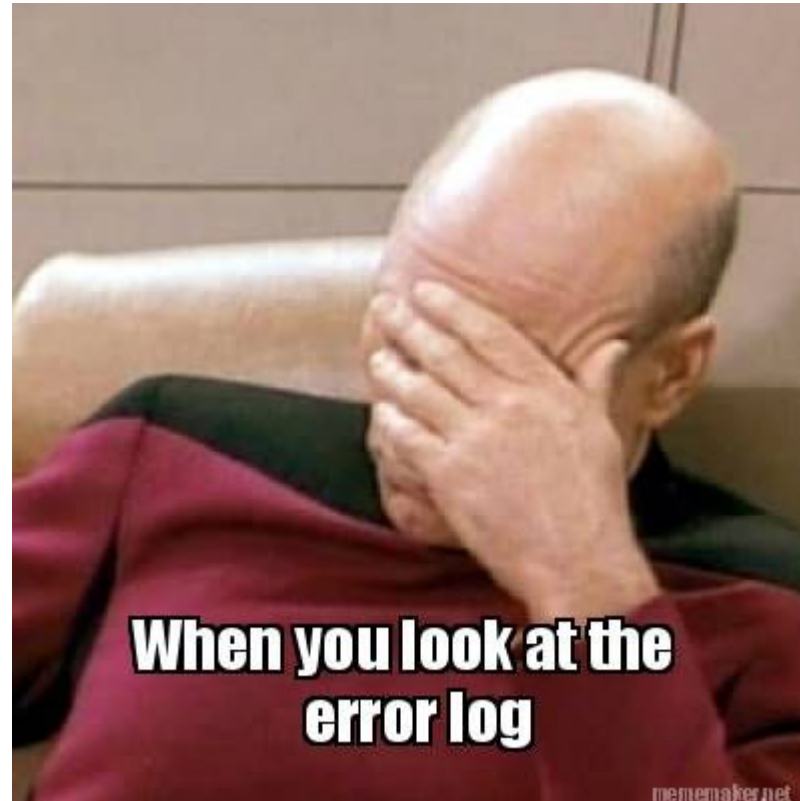
# Java Logging

Spotkanie 1

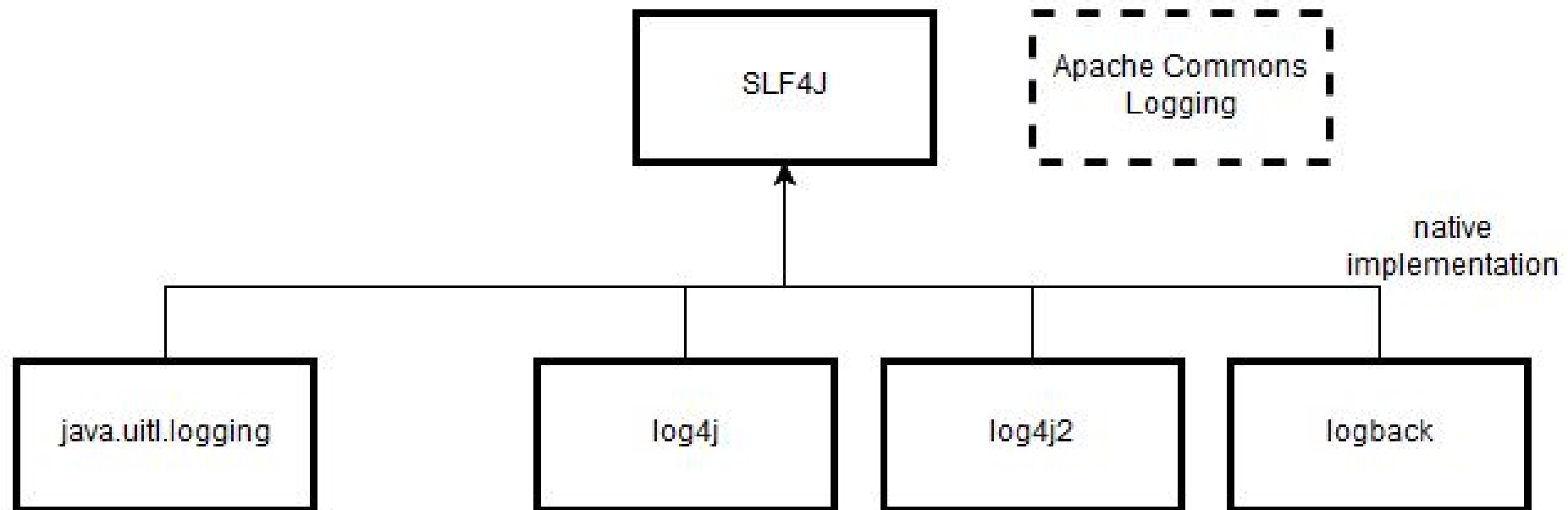
# Simple, but right way?

System.out

System.err



# Libraries



# Benchmark

	Log4j	Log4j2	Logback	SLF4J SL	JUL
String constant	9,105,346	6,611,015	7,962,395	4,373,753	3,392,194
toString()	2,446,231	3,295,459	2,484,715	3,036,851	2,675,183
throwable	785,373	1,671,501	778,861	509,704	1,316,078
toString() w/o context	2,892,461	3,803,235	2,706,752	2,130,221	2,702,327

# Log Levels in Logback

**OFF** - is used to turn off logging.

**ERROR** - level designates error events which may or not be fatal to the application.

**WARN**- level designates potentially harmful situations.

**INFO**- level designates informational messages highlighting overall progress of the application.

**DEBUG** - level designates informational events of lower importance.

**TRACE** - level designates informational events of very low importance.

**ALL** - is used to turn on all logging.

# Appenders

- ConsoleAppender
- FileAppender
-





# Appenders

- ConsoleAppender
- FileAppender
- RollingFileAppender
- SocketAppender and SSLSocketAppender
- ServerSocketAppender and SSLServerSocketAppender
- SMTPAppender
- DBAppender
- SyslogAppender
- Own Appender

# XML Config

```
<configuration>  
  <appender name="STDOUT" class="ch.qos.logback.core.ConsoleAppender">  
    <encoder>  
      <pattern>%d{HH:mm:ss.SSS} [%thread] %-5level %logger{36} - %msg%n</pattern>  
    </encoder>  
  </appender>  
  
  <root level="debug">  
    <appender-ref ref="STDOUT" />  
  </root>  
</configuration>
```

# Antypattern (Log4j, JUL)

```
if (log.isDebugEnabled()) {  
    log.debug("Some notes about: " + object);  
}
```

```
log.debug("Some notes about {}", object);
```

# References

- <http://wiki.apache.org/logging-log4j/Log4JProjectPages>
- <http://logging.apache.org/log4j/1.2/>
- <http://commons.apache.org/proper/commons-logging/>
- <http://www.slf4j.org/news.html>
- <http://logback.qos.ch/>
- <http://stackoverflow.com/questions/11359187/why-not-use-java-util-logging>
- <https://logging.apache.org/log4j/2.0/manual/architecture.html>
- <http://logback.qos.ch/manual/architecture.html>



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