

# Logging Configuration and Usage

Logging framework - [SLF4J](#) (Simple Logging Facade for Java)

Maven dependency (version managed by [related BoM maven project pom.xml](#))

```
<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>slf4j-api</artifactId>
</dependency>
```

## How to use

```
// import required classes
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

// define logger
private static final Logger LOGGER = LoggerFactory.getLogger(AuthenticationServiceImpl.class);

// use in code
try {
  // logic
} catch (final StorageException e) {
  final String message = "(" + accountId + ") fail.";
  LOGGER.error(message, e);
  throw new AuthenticationServiceException(message, e);
}
```

## FATAL logging level (marker usage example)

```
// import utility
import net.bolbat.utils.logging.LoggingUtils;

// use in code
try {
  // logic
} catch (final ManagerException e) {
  final String message = "Can't initialize persistence service.";
  LOGGER.error(LoggingUtils.FATAL, message, e);
  throw new ServiceInstantiationException(message, e);
}
```

## SLF4J API implementations

- default no-operation (NOP) logger, included in slf4j-api
- logback (version managed by [our maven parent project pom.xml](#))

```
<dependency>
  <groupId>ch.qos.logback</groupId>
  <artifactId>logback-classic</artifactId>
</dependency>
```

- apache log4j (version managed by [our maven parent project pom.xml](#))

```
<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>slf4j-log4j12</artifactId>
</dependency>
```

- apache commons-logging (version managed by [our maven parent project pom.xml](#))

```
<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>slf4j-jcl</artifactId>
</dependency>
```

- java util logging (version managed by [our maven parent project pom.xml](#))

```
<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>slf4j-jdk14</artifactId>
</dependency>
```

## How to use for JUnit's without real dependency to logger implementation (logback example)

- Add maven dependency only for testing scope (version managed by [our maven parent project pom.xml](#))

```
<dependency>
  <groupId>ch.qos.logback</groupId>
  <artifactId>logback-classic</artifactId>
  <scope>test</scope>
</dependency>
```

- Configure logger ([example configuration](#))

## Logging redirection from other loggers to SLF4J (just add required dependency)

- apache log4j

```
<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>log4j-over-slf4j</artifactId>
  <version>1.7.5</version>
</dependency>
```

- apache commons-logging

```
<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>jcl-over-slf4j</artifactId>
  <version>1.7.5</version>
</dependency>
```

- java util logging

```
<dependency>
  <groupId>org.slf4j</groupId>
  <artifactId>jul-to-slf4j</artifactId>
  <version>1.7.5</version>
</dependency>
```

- details can be found on <http://www.slf4j.org/legacy.html>

