

BYOD 1

Build and Release Management



SUBMITTED BY

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Windows PowerShell
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Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

```
PS C:\Users\Asus\feedback_portal> mvn -q -DskipTests package
-----
constituent[0]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/conf/logging/
constituent[1]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/aopalliance-1.0.jar
constituent[2]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/asm-9.8.jar
constituent[3]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/commons-cli-1.9.0.jar
constituent[4]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/commons-codec-1.18.0.jar
constituent[5]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/error_prone_annotations-2.38.0.jar
constituent[6]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/failoveraccess-1.0.3.jar
constituent[7]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/gson-2.13.1.jar
constituent[8]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/guava-33.4.8-jre.jar
constituent[9]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/guice-5.1.0-classes.jar
constituent[10]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/httpclient-4.5.14.jar
constituent[11]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/httpcore-4.4.16.jar
constituent[12]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/jansi-2.4.2.jar
constituent[13]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/jcl-over-slf4j-1.7.36.jar
constituent[14]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/jspecify-1.0.0.jar
constituent[15]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-artifact-3.9.11.jar
constituent[16]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-builder-support-3.9.11.jar
constituent[17]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-compat-3.9.11.jar
constituent[18]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-core-3.9.11.jar
constituent[19]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-embedder-3.9.11.jar
constituent[20]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-model-3.9.11.jar
constituent[21]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-model-builder-3.9.11.jar
constituent[22]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-plugin-api-3.9.11.jar
constituent[23]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-repository-metadata-3.9.11.jar
constituent[24]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-api-1.9.24.jar
constituent[25]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-connector-1.9.24.jar
constituent[26]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-impl-1.9.24.jar
constituent[27]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-named-locks-1.9.24.jar
constituent[28]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-provider-3.9.11.jar
constituent[29]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-spi-1.9.24.jar
constituent[30]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-transport-file-1.9.24.jar
constituent[31]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-transport-http-1.9.24.jar
constituent[32]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-transport-wagon-1.9.24.jar
```

```
-----
constituent[32]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-transport-wagon-1.9.24.jar
constituent[33]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-util-1.9.24.jar
constituent[34]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-settings-3.9.11.jar
constituent[35]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-settings-builder-3.9.11.jar
constituent[36]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-shared-utils-3.4.2.jar
constituent[37]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-slf4j-provider-3.9.11.jar
constituent[38]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/org.eclipse.sisu.inject-0.9.0.M4.jar
constituent[39]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/org.eclipse.sisu.plexus-0.9.0.M4.jar
constituent[40]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-cipher-2.0.jar
constituent[41]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-component-annotations-2.2.0.jar
constituent[42]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-interpolation-1.28.jar
constituent[43]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-sec-dispatcher-2.0.jar
constituent[44]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-utils-3.6.0.jar
constituent[45]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/slf4j-api-1.7.36.jar
constituent[46]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/wagon-file-3.5.3.jar
constituent[47]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/wagon-http-3.5.3.jar
constituent[48]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/wagon-http-shared-3.5.3.jar
constituent[49]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11/bin/wagon-provider-api-3.5.3.jar
-----
Exception in thread "main" java.lang.NoClassDefFoundError: javax/inject/Provider
    at org.apache.maven.cli.MavenCli.container(MavenCli.java:648)
    at org.apache.maven.cli.MavenCli.doMain(MavenCli.java:277)
    at org.apache.maven.cli.MavenCli.main(MavenCli.java:206)
    at java.base/jdk/internal.reflect.DirectMethodHandleAccessor.invoke(DirectMethodHandleAccessor.java:104)
    at java.base/java.lang.reflect.Method.invoke(Method.java:565)
    at org.codehaus.plexus.classworlds.launcher.Launcher.launchEnhanced(Launcher.java:255)
    at org.codehaus.plexus.classworlds.launcher.Launcher.launch(Launcher.java:201)
    at org.codehaus.plexus.classworlds.launcher.Launcher.mainWithExitCode(Launcher.java:361)
    at org.codehaus.plexus.classworlds.launcher.Launcher.main(Launcher.java:314)
Caused by: java.lang.ClassNotFoundException: javax.inject.Provider
    at org.codehaus.plexus.classworlds.strategy.SelfFirstStrategy.loadClass(SelfFirstStrategy.java:42)
    at org.codehaus.plexus.classworlds.realm.ClassRealm.unsynchronizedLoadClass(ClassRealm.java:225)
    at org.codehaus.plexus.classworlds.realm.ClassRealm.loadClass(ClassRealm.java:210)
    at org.codehaus.plexus.classworlds.realm.ClassRealm.loadClass(ClassRealm.java:205)
    ... 9 more
PS C:\Users\Asus\feedback_portal> mvn -q -DskipTests package
-----
constituent[0]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/conf/logging/
constituent[1]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/aopalliance-1.0.jar
constituent[2]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/asm-9.8.jar
```

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constituent[23]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-repository-metadata-3.9.11.jar
constituent[24]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-api-1.9.24.jar
constituent[25]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-connector-basic-1.9.24.jar
constituent[26]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-impl-1.9.24.jar
constituent[27]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-named-locks-1.9.24.jar
constituent[28]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-provider-3.9.11.jar
constituent[29]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-spi-1.9.24.jar
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constituent[31]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-transport-http-1.9.24.jar
constituent[32]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-transport-wagon-1.9.24.jar
constituent[33]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-resolver-util-1.9.24.jar
constituent[34]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-settings-3.9.11.jar
constituent[35]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-settings-builder-3.9.11.jar
constituent[36]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-shared-utils-3.4.2.jar
constituent[37]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/maven-slf4j-provider-3.9.11.jar
constituent[38]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/org.eclipse.sisu.inject-0.9.0.M4.jar
constituent[39]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/org.eclipse.sisu.plexus-0.9.0.M4.jar
constituent[40]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-cipher-2.0.jar
constituent[41]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-component-annotations-2.2.0.jar
constituent[42]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-interpolation-1.28.jar
constituent[43]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-sec-dispatcher-2.0.jar
constituent[44]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/plexus-utils-3.6.0.jar
constituent[45]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/slf4j-api-1.7.36.jar
constituent[46]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/wagon-file-3.5.3.jar
constituent[47]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/wagon-http-3.5.3.jar
constituent[48]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/wagon-http-shared-3.5.3.jar
constituent[49]: file:/C:/Users/Asus/Downloads/apache-maven-3.9.11-bin/apache-maven-3.9.11/lib/wagon-provider-api-3.5.3.jar
-----
Exception in thread "main" java.lang.NoClassDefFoundError: javax/inject/Provider
        at org.apache.maven.cli.MavenCli.container(MavenCli.java:648)
        at org.apache.maven.cli.MavenCli.domain(MavenCli.java:277)
        at org.apache.maven.cli.MavenCli.main(MavenCli.java:206)
        at java.base/jdk.internal.reflect.DirectMethodHandleAccessor.invoke(DirectMethodHandleAccessor.java:104)
        at java.base/java.lang.reflect.Method.invoke(Method.java:65)
        at org.codehaus.plexus.classworlds.launcher.Launcher.launchEnhanced(Launcher.java:255)
        at org.codehaus.plexus.classworlds.launcher.Launcher.launch(Launcher.java:201)
        at org.codehaus.plexus.classworlds.launcher.Launcher.mainWithExitCode(Launcher.java:361)
        at org.codehaus.plexus.classworlds.launcher.Launcher.main(Launcher.java:314)
Caused by: java.lang.ClassNotFoundException: javax.inject.Provider
        at org.codehaus.plexus.classworlds.strategy.SelfFirstStrategy.loadClass(SelfFirstStrategy.java:42)

```

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at org.codehaus.plexus.classworlds.realm.ClassRealm.loadClass(ClassRealm.java:205)
... 9 more
PS C:\Users\Asus\feedback_portal> javac -version
javac 25.0.1
PS C:\Users\Asus\feedback_portal> javac -version
javac 25.0.1
PS C:\Users\Asus\feedback_portal> powershell -Command "mkdir -Force lib | Out-Null; Invoke-WebRequest -Uri 'https://repo1.maven.org/maven2/javax/servlet/javax.servlet-api/4.0.1/javax.servlet-api-4.0.1.jar' -Out-File 'lib\javax.servlet-api-4.0.1.jar'"
PS C:\Users\Asus\feedback_portal> powershell -Command "mkdir -Force target\classes; $cp = 'lib\javax.servlet-api-4.0.1.jar'; $src = Get-ChildItem -Recurse -File src\main\java | Where-Object { $_.Extension -eq '.java' } | ForEach-Object { $_.FullName } ; javac -d target\classes -cp $cp $src"

```

```

error: --class-path requires an argument
Usage: javac <options> <source files>
use --help for a list of possible options

PS C:\Users\Asus\feedback_portal> powershell -Command "Get-ChildItem -Path 'src\main\java' -Recurse -Filter '*.java' | Select-Object -ExpandProperty FullName > target\sources.txt; javac -d target\classes -cp 'lib\javax.servlet-api-4.0.1.jar' @target\sources.txt"

An input/output error occurred.
Consult the following stack trace for details.
java.nio.charset.MalformedInputException: Input length = 1
        at java.base/java.nio.charset.CoderResult.throwException(CoderResult.java:279)
        at java.base/sun.nio.cs.StreamDecoder.implRead(StreamDecoder.java:334)
        at java.base/sun.nio.cs.StreamDecoder.read(StreamDecoder.java:186)
        at java.base/java.io.InputStreamReader.read(InputStreamReader.java:183)
        at java.base/java.io.BufferedReader.fill(BufferedReader.java:166)
        at java.base/java.io.BufferedReader.read(BufferedReader.java:187)
        at jdk.internal.opt/jdk/internal/opt.CommandLine$Tokenizer.<init>(CommandLine.java:145)
        at jdk.internal.opt/jdk/internal/opt.CommandLine.loadCmdfileAndCloseReader(CommandLine.java:131)
        at jdk.internal.opt/jdk/internal/opt.CommandLine.appendParsedCommandArgs(CommandLine.java:84)
        at jdk.internal.opt/jdk/internal/opt.CommandLine.parse(CommandLine.java:115)
        at jdk.compiler/com.sun.tools.javac.main.Main.compile(Main.java:224)
        at jdk.compiler/com.sun.tools.javac.main.Main.compile(Main.java:178)
        at jdk.compiler/com.sun.tools.javac.Main.compile(Main.java:66)
        at jdk.compiler/com.sun.tools.javac.Main.main(Main.java:52)
PS C:\Users\Asus\feedback_portal> powershell -Command "$cp = 'lib\javax.servlet-api-4.0.1.jar'; $files = Get-ChildItem -Path 'src\main\java' -Recurse -Filter '*.java' | ForEach-Object { $_.FullName }; if($files.Count -eq 0) { Write-Error 'No java files found'; exit 1 }; & javac -d target\classes -cp $cp $files"
= : The term '=' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:2
+ = 'lib\javax.servlet-api-4.0.1.jar'; = Get-ChildItem -Path 'src\mai ...
+ ~
+ CategoryInfo          : ObjectNotFound: (=String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

= : The term '=' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:40

```

```
+ FullyQualifiedErrorId : CommandNotFoundException

error: --class-path requires an argument
Usage: javac <options> <source files>
use --help for a list of possible options
PS C:\Users\Asus\feedback_portal> powershell -Command "Get-ChildItem -Path 'src\main\java' -Recurse -Filter '*.java' | Select-Object -ExpandProperty FullName | Out-File -FilePath 'target\sources.txt' -Encoding ascii; java -d target\classes -cp 'lib\javax.servlet-api-4.0.1.jar' @target\sources.txt"
PS C:\Users\Asus\feedback_portal> powershell -Command "rm -Recurse -Force target\warroot -ErrorAction SilentlyContinue; mkdir -Force target\warroot; Copy-Item -Path src\main\webapp \* -Destination target\warroot -Recurse; mkdir -Force target\warroot\WEB-INF\classes; Copy-Item -Path target\classes\* -Destination target\warroot\WEB-INF\classes -Recurse; if((Test-Path target\feedback_portal.war){Remove-Item target\feedback_portal.war}; Set-Location target\warroot; jar -cf ..\feedback_portal.war *; Set-Location -Path ..\..;""

Directory: C:\Users\Asus\feedback_portal\target

Mode           LastWriteTime         Length Name
----           -----          ----  --
d----
```

Mode	LastWriteTime	Length	Name
d----	11/14/2025 10:54 AM		warroot

```
Directory: C:\Users\Asus\feedback_portal\target\warroot\WEB-INF

Mode           LastWriteTime         Length Name
----           -----          ----  --
d----
```

Mode	LastWriteTime	Length	Name
d----	11/14/2025 10:54 AM		classes

```
PS C:\Users\Asus\feedback_portal> powershell -Command "Test-Path target\feedback_portal.war; if((Test-Path target\feedback_portal.war)){ Get-Item target\feedback_portal.war | Select-Object Name, Length, LastWriteTime | Format-List } else { Write-Output 'WAR not created' }"
True

Name        : feedback_portal.war
Length      : 6550
LastWriteTime : 11/14/2025 10:54:01 AM

PS C:\Users\Asus\feedback_portal> powershell -Command "Get-ChildItem -Path target | Where-Object { -not $_.PSIsContainer } | Format-List Name, Length, LastWriteTime"
```

```
PS C:\Users\Asus\feedback_portal> powershell -Command "dir target | Out-String -Width 200"

Directory: C:\Users\Asus\feedback_portal\target

Mode           LastWriteTime         Length Name
----           -----          ----  --
d----
```

Mode	LastWriteTime	Length	Name
d----	11/14/2025 10:53 AM		classes
d----	11/14/2025 10:54 AM		warroot
-a----	11/14/2025 10:54 AM	6550	feedback_portal.war
-a----	11/14/2025 10:53 AM	239	sources.txt

```
PS C:\Users\Asus\feedback_portal>
```

Project ▾

- ✓  **feedback_portal** C:\Users\Asus\feedback_portal
 - >  .idea
 -  .mvn
 - >  lib
 - ✓  src
 - ✓  main
 - ✓  java
 - ✓  com.example
 - >  servlet
 - >  store
 - © feedback
 resources
 - ✓  webapp
 - ✓  WEB-INF
 - </> web.xml
 - JSP index.jsp

- ✓  target
- >  classes
- >  warroot
-  feedback_portal.war
- ≡ sources.txt
- ∅ .gitignore
-  pom.xml
- ✓  External Libraries
- >  < 25 > C:\Program Files\Java\jdk-25
- >  Maven: javax.servlet:javax.servlet-api:4.0.1
- >  Maven: junit:junit:3.8.1
- ≡ Scratches and Consoles

Project

```

  feedback_portal C:\Users\Asus\feedback_portal
    .idea
    .mvn
    lib
    src
      main
        com.example
          servlet
          store
            feedback
            resources
        webapp
          WEB-INF
            web.xml
            index.jsp
      target
        classes
        warroot
        feedback_portal.war
        sources.txt
      .gitignore
      pom.xml
    External Libraries
      < 25 > C:\Program Files\Java\jdk-25
      Maven: javax.servlet:javax.servlet-api:4.0.1
      Maven: junit:junit:3.8.1
  Scratches and Consoles

```

pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.java

```

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.example</groupId>
  <artifactId>feedback_portal</artifactId>
  <packaging>war</packaging>
  <version>1.0-SNAPSHOT</version>
  <name>feedback_portal Maven Webapp</name>
  <url>http://maven.apache.org</url>
  <dependencies>
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>3.8.1</version>
      <scope>test</scope>
    </dependency>
    <dependency>
      <groupId>javax.servlet</groupId>
      <artifactId>javax.servlet-api</artifactId>
      <version>4.0.1</version>
      <scope>provided</scope>
    </dependency>
  </dependencies>
  <build>
    <finalName>feedback_portal</finalName>
  </build>
</project>

```

pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.java

```

package com.example;

public class feedback {
    private int id;
    private String userId; no usages
    private String comments; 4 usages
    private int rating; 4 usages

    public feedback() { no usages
        // no-arg constructor for frameworks / serialization
    }

    public feedback(String userId, String comments, int rating) { no usages
        this.userId = userId;
        this.comments = comments;
        this.rating = rating;
    }

    public String getUserId() { no usages
        return userId;
    }

    public void setUserId(String userId) { no usages
        this.userId = userId;
    }

    public String getComments() { no usages
        return comments;
    }

    public void setComments(String comments) { no usages
        this.comments = comments;
    }
}

```



```
m pom.xml (feedback_portal)   ◉ feedback.java ✘  ◉ FeedbackStore.java    ◉ FeedbackServlet.java    ◉ HttpServlet.class  ▾  : 7  ^  ▾  
3     public class feedback {      private int id;      private String userId;  no usages  
31    }  
32  
33    public int getRating() {  no usages  
34        return rating;  
35    }  
36  
37    public void setRating(int rating) {  no usages  
38        this.rating = rating;  
39    }  
40  
41    public int getId() {  no usages  
42        return id;  
43    }  
44  
45    public void setId(int id) {  no usages  
46        this.id = id;  
47    }  
48  
49    // Simple JSON serializer used by the servlet (keeps dependencies minimal)  
50    public String toJson() {  no usages  
51        return "{\"id\":\"" + id + "\",\"userId\":\"" + escape(userId) + "\",\"comments\":\"" + escape(comments) + "  
52    }  
53  
54    @  
55    private String escape(String s) {  2 usages  
56        if (s == null) return "";  
57        return s.replace( target: "\\", replacement: "\\\"").replace( target: "\\"", replacement: "\\\"").replace( target:  
58    }  
59 }
```



```
1 package com.example.store;
2
3 > import ...
4
5
6 public class FeedbackStore { 3 usages
7     private final ConcurrentHashMap<Integer, Feedback> map = new ConcurrentHashMap<>(); 3 usages
8     private final AtomicInteger idGen = new AtomicInteger( initialValue: 1); 1 usage
9
10    private static final FeedbackStore INSTANCE = new FeedbackStore(); 1 usage
11
12    private FeedbackStore() {} 1 usage
13
14    public static FeedbackStore getInstance() { return INSTANCE; }
15
16    @Override
17    public int add(Feedback f) { no usages
18        int id = idGen.getAndIncrement();
19        f.setId(id);
20        map.put(id, f);
21        return id;
22    }
23
24    public Feedback get(int id) { return map.get(id); }
25
26    public List<Feedback> list() { return new ArrayList<>(map.values()); }
27
28
29
30
31
32
33
34
35
36
37
38
39
```

```
1 package com.example.servlet;
2
3 > import com.example.feedback;
4 > import com.example.store.FeedbackStore;
5
6 import javax.servlet.ServletException;
7 import javax.servlet.http.HttpServlet;
8 import javax.servlet.http.HttpServletRequest;
9 import javax.servlet.http.HttpServletResponse;
10 import java.io.IOException;
11 import java.io.PrintWriter;
12 import java.util.List;
13
14 public class FeedbackServlet extends HttpServlet {
15     private final FeedbackStore store = FeedbackStore.getInstance(); 3 usages
16
17     @Override no usages
18     protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
19         req.setCharacterEncoding("UTF-8");
20         String userId = req.getParameter( s: "userId");
21         String comments = req.getParameter( s: "comments");
22         String ratingParam = req.getParameter( s: "rating");
23
24         // Basic validation
25         if (isBlank(userId) || isBlank(comments) || isBlank(ratingParam)) {
26             sendError(resp, HttpServletResponse.SC_BAD_REQUEST, message: "userId, comments and rating are required and cannot be empty");
27             return;
28         }
29
30         int rating;
31         try {
32             rating = Integer.parseInt(ratingParam);
33         } catch (NumberFormatException e) {
```



L O V E L Y
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pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java x HttpServlet.class web.xml index.jsp

```
14     public class FeedbackServlet extends HttpServlet {
15         protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
16             out.print("]");
17             out.flush();
18             return;
19         }
20
21         int id;
22         try {
23             id = Integer.parseInt(idParam);
24         } catch (NumberFormatException e) {
25             sendError(resp, HttpServletResponse.SC_BAD_REQUEST, message: "id must be an integer");
26             return;
27         }
28
29         feedback f = store.get(id);
30         if (f == null) {
31             sendError(resp, HttpServletResponse.SC_NOT_FOUND, message: "Feedback not found");
32             return;
33         }
34
35         out.print(f.toJson());
36         out.flush();
37     }
38
39     private boolean isBlank(String s) { return s == null || s.trim().isEmpty(); }
40
41     private void sendError(HttpServletResponse resp, int status, String message) throws IOException {
42         resp.setStatus(status);
43         resp.setContentType("application/json;charset=UTF-8");
44         PrintWriter out = resp.getWriter();
45         out.print("{\"error\": \"" + escape(message) + "\"}");
46         out.flush();
47     }
48
49     @
50
51     private void escape(String str) {
52         str = str.replace("\\", "\\\\");
53         str = str.replace("\"", "\\\"");
54         str = str.replace("\n", "\\n");
55         str = str.replace("\r", "\\r");
56         str = str.replace("\t", "\\t");
57     }
58
59     private String idParam;
60
61     private FeedbackStore store;
62 }
```



```
14  public class FeedbackServlet extends HttpServlet {  
15      protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {  
16          if (f == null) {  
17              sendError(resp, HttpServletResponse.SC_NOT_FOUND, "feedback not found");  
18              return;  
19          }  
20          out.print(f.toJson());  
21          out.flush();  
22      }  
23      > private boolean isBlank(String s) { return s == null || s.trim().isEmpty(); }  
24      @  
25      private void sendError(HttpServletResponse resp, int status, String message) throws IOException { 5 usages  
26          resp.setStatus(status);  
27          resp.setContentType("application/json;charset=UTF-8");  
28          PrintWriter out = resp.getWriter();  
29          out.print("{\"error\":\"" + escape(message) + "\"}");  
30          out.flush();  
31      }  
32      @  
33      private String escape(String s) { 1 usage  
34          if (s == null) return "";  
35          return s.replace("\\\\", "\\\\").replace("\\\"", "\\\"").replace("\n", "\\\n").replace("\r", "\\r");  
36      }  
37  }
```

```
1 //  
2 // Source code recreated from a .class file by IntelliJ IDEA  
3 // (powered by FernFlower decompiler)  
4 //  
5  
6 package javax.servlet.http;  
7  
8 import java.io.IOException;  
9 import java.lang.reflect.Method;  
10 import java.text.MessageFormat;  
11 import java.util.Enumeration;  
12 import java.util.ResourceBundle;  
13 import javax.servlet.GenericServlet;  
14 import javax.servlet.ServletException;  
15 import javax.servlet.ServletOutputStream;  
16 import javax.servlet.ServletRequest;  
17 import javax.servlet.ServletResponse;  
18  
19 @  
20 public abstract class HttpServlet extends GenericServlet { 1 inheritor  
21     private static final String METHOD_DELETE = "DELETE";  
22     private static final String METHOD_HEAD = "HEAD";  
23     private static final String METHOD_GET = "GET";  
24     private static final String METHOD_OPTIONS = "OPTIONS";  
25     private static final String METHOD_POST = "POST";  
26     private static final String METHOD_PUT = "PUT";  
27     private static final String METHOD_TRACE = "TRACE";  
28     private static final String HEADER_IFMODSINCE = "If-Modified-Since";  
29     private static final String HEADER_LASTMOD = "Last-Modified";  
30     private static final String LSTRING_FILE = "javax.servlet.http.LocalStrings";  
31     private static ResourceBundle lStrings = ResourceBundle.getBundle( basename: "javax.servlet.http.LocalStrings" );
```



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pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.class x web.xml index.jsp

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Decompled .class file, bytecode version: 52.0 (Java 8)

```
19 public abstract class HttpServlet extends GenericServlet { 1 inheritor
20
21     protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException { 1 override
22         String protocol = req.getProtocol();
23         String msg = lStrings.getString( key: "http.method_get_not_supported");
24         if (protocol.endsWith("1.1")) {
25             resp.sendError( 405, msg);
26         } else {
27             resp.sendError( 400, msg);
28         }
29     }
30
31
32     protected long getLastModified(HttpServletRequest req) {
33         return -1L;
34     }
35
36
37     protected void doHead(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
38         NoBodyResponse response = new NoBodyResponse(resp);
39         this.doGet(req, response);
40         response.setContentLength();
41     }
42
43     protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException { 1 override
44         String protocol = req.getProtocol();
45         String msg = lStrings.getString( key: "http.method_post_not_supported");
46         if (protocol.endsWith("1.1")) {
47             resp.sendError( 405, msg);
48         } else {
49             resp.sendError( 400, msg);
50         }
51     }
52
53 }
```

pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.class x web.xml index.jsp

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Decompled .class file, bytecode version: 52.0 (Java 8)

```
19 public abstract class HttpServlet extends GenericServlet { 1 inheritor
20 }
21
22     protected void doPut(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
23         String protocol = req.getProtocol();
24         String msg = IStrings.getString( key: "http.method_put_not_supported" );
25         if (protocol.endsWith("1.1")) {
26             resp.sendError( 405, msg );
27         } else {
28             resp.sendError( 400, msg );
29         }
30     }
31
32
33     protected void doDelete(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
34         String protocol = req.getProtocol();
35         String msg = IStrings.getString( key: "http.method_delete_not_supported" );
36         if (protocol.endsWith("1.1")) {
37             resp.sendError( 405, msg );
38         } else {
39             resp.sendError( 400, msg );
40         }
41     }
42
43
44     private Method[] getAllDeclaredMethods(Class<? extends HttpServlet> c) {
45         Class<?> clazz = c;
46
47         Method[] allMethods;
48         for (allMethods = null; !clazz.equals(HttpServletRequest.class); clazz = clazz.getSuperclass()) {
49             Method[] thisMethods = clazz.getDeclaredMethods();
50         }
51     }
52 }
```



m pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.class web.xml JSP index.jsp

Decomplied .class file, bytecode version: 52.0 (Java 8)

```
19     public abstract class HttpServlet extends GenericServlet { 1 inheritor
86         private Method[] getAllDeclaredMethods(Class<? extends HttpServlet> c) {
93             Method[] subClassMethods = allMethods;
94             allMethods = new Method[thisMethods.length + allMethods.length];
95             System.arraycopy(thisMethods, 0, allMethods, destPos: 0, thisMethods.length);
96             System.arraycopy(subClassMethods, 0, allMethods, thisMethods.length, subClassMethods.length);
97         } else {
98             allMethods = thisMethods;
99         }
100     }
101
102     return allMethods != null ? allMethods : new Method[0];
103 }
104
105     protected void doOptions(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
106         Method[] methods = this.getAllDeclaredMethods(this.getClass());
107         boolean ALLOW_GET = false;
108         boolean ALLOW_HEAD = false;
109         boolean ALLOW_POST = false;
110         boolean ALLOW_PUT = false;
111         boolean ALLOW_DELETE = false;
112         boolean ALLOW_TRACE = true;
113         boolean ALLOW_OPTIONS = true;
114
115         for (int i = 0; i < methods.length; ++i) {
116             String methodName = methods[i].getName();
117             if (methodName.equals("doGet")) {
118                 ALLOW_GET = true;
119                 ALLOW_HEAD = true;
120             } else if (methodName.equals("doPost")) {
121                 ALLOW_POST = true;
122             }
123         }
124     }
125
126     protected void doOptions(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
127         ALLOW_PUT = true;
128         } else if (methodName.equals("doDelete")) {
129             ALLOW_DELETE = true;
130         }
131     }
132
133     StringBuilder allow = new StringBuilder();
134     if (ALLOW_GET) {
135         allow.append("GET");
136     }
137
138     if (ALLOW_HEAD) {
139         if (allow.length() > 0) {
140             allow.append(", ");
141         }
142         allow.append("HEAD");
143     }
144
145     if (ALLOW_POST) {
146         if (allow.length() > 0) {
147             allow.append(", ");
148         }
149         allow.append("POST");
150     }
151     if (ALLOW_PUT) {
152         if (allow.length() > 0) {
153             allow.append(", ");
154         }
155         allow.append("PUT");
156     }
157
158     resp.setHeader("Allow", allow.toString());
159 }
```

m pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.class web.xml JSP index.jsp

Decompled .class file, bytecode version: 52.0 (Java 8)

```
19     public abstract class HttpServlet extends GenericServlet { 1 inheritor
105     protected void doOptions(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
123         ALLOW_PUT = true;
124         } else if (methodName.equals("doDelete")) {
125             ALLOW_DELETE = true;
126         }
127     }
128
129     StringBuilder allow = new StringBuilder();
130     if (ALLOW_GET) {
131         allow.append("GET");
132     }
133
134     if (ALLOW_HEAD) {
135         if (allow.length() > 0) {
136             allow.append(", ");
137         }
138         allow.append("HEAD");
139     }
140
141     if (ALLOW_POST) {
142         if (allow.length() > 0) {
143             allow.append(", ");
144         }
145         allow.append("POST");
146     }
147
148     if (ALLOW_PUT) {
149         if (allow.length() > 0) {
150             allow.append(", ");
151         }
152         allow.append("PUT");
153     }
154
155     resp.setHeader("Allow", allow.toString());
156 }
```



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Decompled .class file, bytecode version: 52.0 (Java 8)

```
19     public abstract class HttpServlet extends GenericServlet { 1 inheritor
20         protected void doOptions(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
21             }
22
23             if (ALLOW_DELETE) {
24                 if (allow.length() > 0) {
25                     allow.append(", ");
26                 }
27
28                 allow.append("DELETE");
29             }
30
31             if (ALLOW_TRACE) {
32                 if (allow.length() > 0) {
33                     allow.append(", ");
34                 }
35
36                 allow.append("TRACE");
37             }
38
39             if (ALLOW_OPTIONS) {
40                 if (allow.length() > 0) {
41                     allow.append(", ");
42                 }
43
44                 allow.append("OPTIONS");
45             }
46
47             resp.setHeader("Allow", allow.toString());
48         }
49     }
```

```

m pom.xml (feedback_portal) ① feedback.java ② FeedbackStore.java ③ FeedbackServlet.java ④ HttpServlet.class x ⑤ web.xml ⑥ index.jsp
① Decomplied .class file, bytecode version: 52.0 (Java 8)
Download Sources Choose

19   public abstract class HttpServlet extends GenericServlet { 1 inheritor
20       protected void service(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {
21           this.maybeSetLastModified(resp, lastModified);
22           this.doHead(req, resp);
23       } else if (method.equals("POST")) {
24           this.doPost(req, resp);
25       } else if (method.equals("PUT")) {
26           this.doPut(req, resp);
27       } else if (method.equals("DELETE")) {
28           this.doDelete(req, resp);
29       } else if (method.equals("OPTIONS")) {
30           this.doOptions(req, resp);
31       } else if (method.equals("TRACE")) {
32           this.doTrace(req, resp);
33       } else {
34           String errMsg = lStrings.getString( key: "http.method_not_implemented");
35           Object[] errArgs = new Object[1];
36           errArgs[0] = method;
37           errMsg = MessageFormat.format(errMsg, errArgs);
38           resp.sendError( i 501, errMsg);
39       }
40   }
41
42     @
43     private void maybeSetLastModified(HttpServletResponse resp, long lastModified) {
44         if (!resp.containsHeader( s: "Last-Modified")) {
45             if (lastModified >= 0L) {
46                 resp.setDateHeader( s: "Last-Modified", lastModified);
47             }
48         }
49     }
50
51     public void service(ServletRequest req, ServletResponse res) throws ServletException, IOException {
52         if (req instanceof HttpServletRequest && res instanceof HttpServletResponse) {
53             HttpServletRequest request = (HttpServletRequest) req;
54             HttpServletResponse response = (HttpServletResponse) res;
55             this.service(request, response);
56         } else {
57             throw new ServletException("non-HTTP request or response");
58         }
59     }
60 }
61

```

m pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.class web.xml x JSP index.jsp

```

1 <!DOCTYPE web-app PUBLIC
2   "-//Sun Microsystems, Inc.//DTD Web Application 2.3//EN"
3   "http://java.sun.com/dtd/web-app_2_3.dtd" >
4
5 <web-app>
6   <display-name>Archetype Created Web Application</display-name>
7
8   <servlet>
9     <servlet-name>FeedbackServlet</servlet-name>
10    <servlet-class>com.example.servlet.FeedbackServlet</servlet-class>
11  </servlet>
12
13  <servlet-mapping>
14    <servlet-name>FeedbackServlet</servlet-name>
15    <url-pattern>/feedback</url-pattern>
16  </servlet-mapping>
17
18 </web-app>
19

```

m pom.xml (feedback_portal) feedback.java FeedbackStore.java FeedbackServlet.java HttpServlet.class web.xml x JSP index.jsp

```

1 <html>
2   <head>
3     <meta charset="UTF-8" />
4     <title>Feedback Portal</title>
5   </head>
6   <body>
7     <h2>Feedback Portal</h2>
8     <form id="feedbackForm">
9       <label>User ID: <input type="text" name="userId" id="userId" /></label><br/>
10      <label>Comments: <br/><textarea name="comments" id="comments" rows="4" cols="50"></textarea></label><br/>
11      <label>Rating: <input type="number" name="rating" id="rating" min="1" max="5" /></label><br/>
12      <button type="submit">Submit Feedback</button>
13    </form>
14
15    <button id="refresh">Refresh Feedback List</button>
16    <div id="message" style="color: red;"></div>
17    <pre id="list"></pre>
18
19    <script>
20      document.getElementById('feedbackForm').addEventListener('submit', function(e){
21        e.preventDefault();
22        document.getElementById('message').textContent = '';
23        var form = e.target;
24        var data = new URLSearchParams();
25        data.append('userId', form.userId.value);
26        data.append('comments', form.comments.value);
27        data.append('rating', form.rating.value);
28
29        fetch(window.location.pathname.replace(/[^/]*$/, '') + 'feedback', {
30          method: 'POST',
31          body: data
32        }).then(function(resp){
33          if (!resp.ok) return resp.json().then(function(err){ throw err });
34        })
35      })
36    </script>
37
38  </body>
39 </html>

```

JSP index.jsp

```

32     }).then(function(resp){
33         if (!resp.ok) return resp.json().then(function(j){ throw j; });
34         return resp.json();
35     }).then(function(json){
36         document.getElementById('message').style.color = 'green';
37         document.getElementById('message').textContent = 'Saved with id ' + json.id;
38         loadList();
39         form.userId.value=''; form.comments.value=''; form.rating.value='';
40     }).catch(function(err){
41         document.getElementById('message').style.color = 'red';
42         document.getElementById('message').textContent = err && err.error ? err.error : 'Error submitting feedback';
43     });
44 });
45
46 function loadList(){
47     fetch(window.location.pathname.replace(/[^/]*$/, '') + 'feedback').then(function(resp){
48         return resp.json();
49     }).then(function(json){
50         document.getElementById('list').textContent = JSON.stringify(json, null, 2);
51     }).catch(function(){
52         document.getElementById('list').textContent = 'Could not load feedback list.';
53     });
54 }
55
56 document.getElementById('refresh').addEventListener('click', loadList);
57 // load on open
58 loadList();
59 </script>
60 </body>
61 </html>
62

```



Feedback Portal

User ID:

Comments:

Rating:

Could not load feedback list.