

<epam>

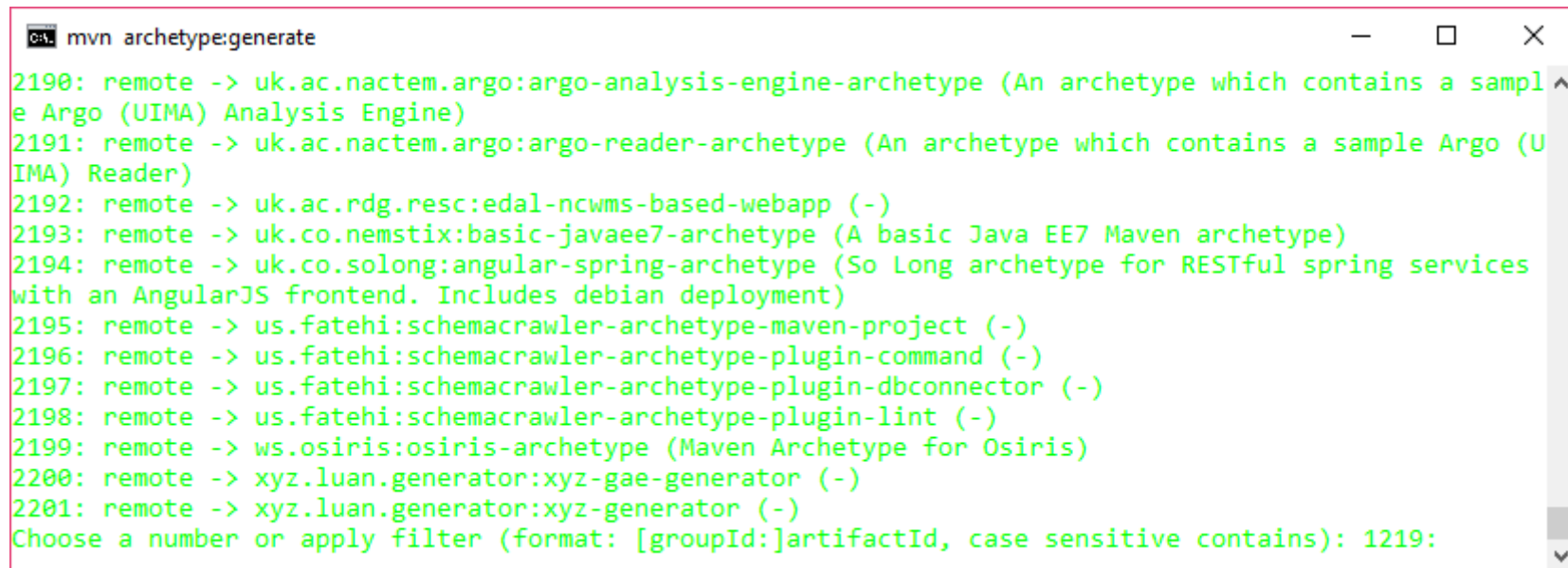
Maven

Unit 02



Создание maven-проектов с использованием архетипов

> mvn archetype:generate



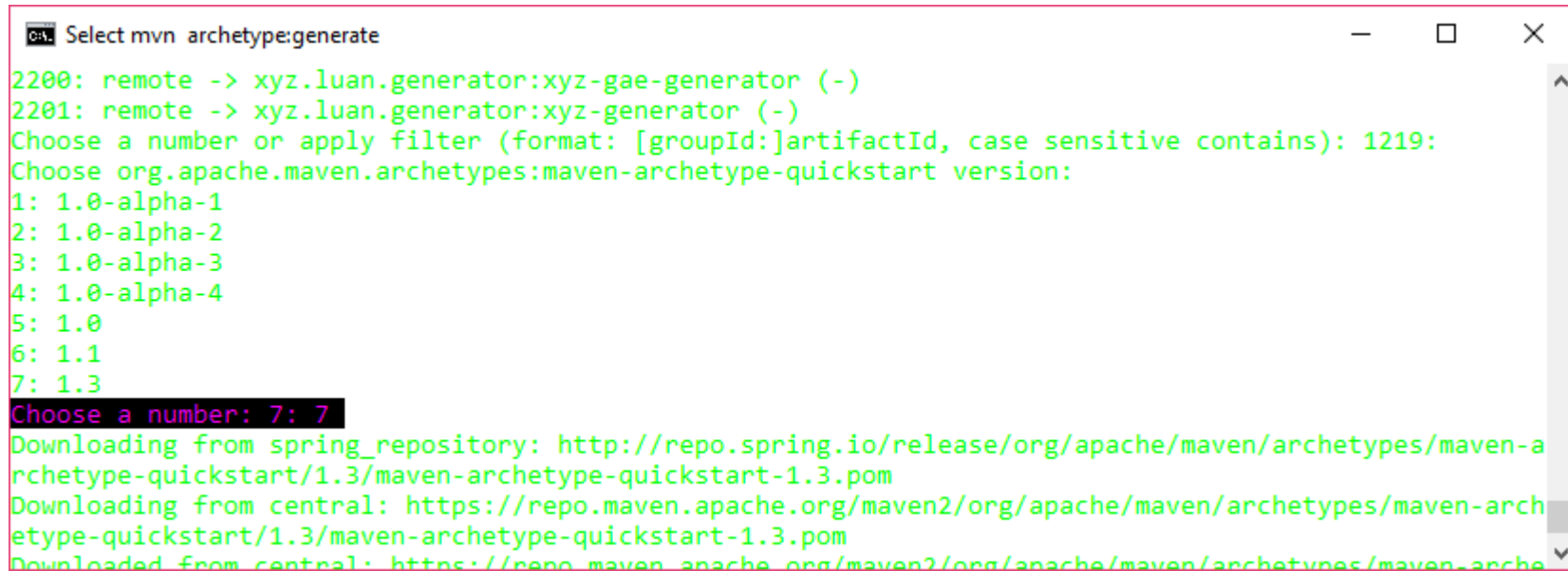
```
mvn archetype:generate

2190: remote -> uk.ac.nactem.argo:argo-analysis-engine-archetype (An archetype which contains a sample Argo (UIMA) Analysis Engine)
2191: remote -> uk.ac.nactem.argo:argo-reader-archetype (An archetype which contains a sample Argo (UIMA) Reader)
2192: remote -> uk.ac.rdg.resc.edal-ncwms-based-webapp (-)
2193: remote -> uk.co.nemstix:basic-javaee7-archetype (A basic Java EE7 Maven archetype)
2194: remote -> uk.co.solong:angular-spring-archetype (So Long archetype for RESTful spring services with an AngularJS frontend. Includes debian deployment)
2195: remote -> us.fatehi:schemacrawler-archetype-maven-project (-)
2196: remote -> us.fatehi:schemacrawler-archetype-plugin-command (-)
2197: remote -> us.fatehi:schemacrawler-archetype-plugin-dbconnector (-)
2198: remote -> us.fatehi:schemacrawler-archetype-plugin-lint (-)
2199: remote -> ws.osiris:osiris-archetype (Maven Archetype for Osiris)
2200: remote -> xyz.luan.generator:xyz-gae-generator (-)
2201: remote -> xyz.luan.generator:xyz-generator (-)
Choose a number or apply filter (format: [groupId:]artifactId, case sensitive contains): 1219:
```

Нажмите клавишу <ввод>

Maven. Unit 02

Выберите версию шаблона для создания простого консольного приложения.



```
0% Select mvn archetype:generate
2200: remote -> xyz.luan.generator:xyz-gae-generator (-)
2201: remote -> xyz.luan.generator:xyz-generator (-)
Choose a number or apply filter (format: [groupId:]artifactId, case sensitive contains): 1219:
Choose org.apache.maven.archetypes:maven-archetype-quickstart version:
1: 1.0-alpha-1
2: 1.0-alpha-2
3: 1.0-alpha-3
4: 1.0-alpha-4
5: 1.0
6: 1.1
7: 1.3
Choose a number: 7: 7
Downloading from spring_repository: http://repo.spring.io/release/org/apache/maven/archetypes/maven-archetype-quickstart/1.3/maven-archetype-quickstart-1.3.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.3/maven-archetype-quickstart-1.3.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.3/maven-archetype-quickstart-1.3.pom
```

Maven. Unit 02

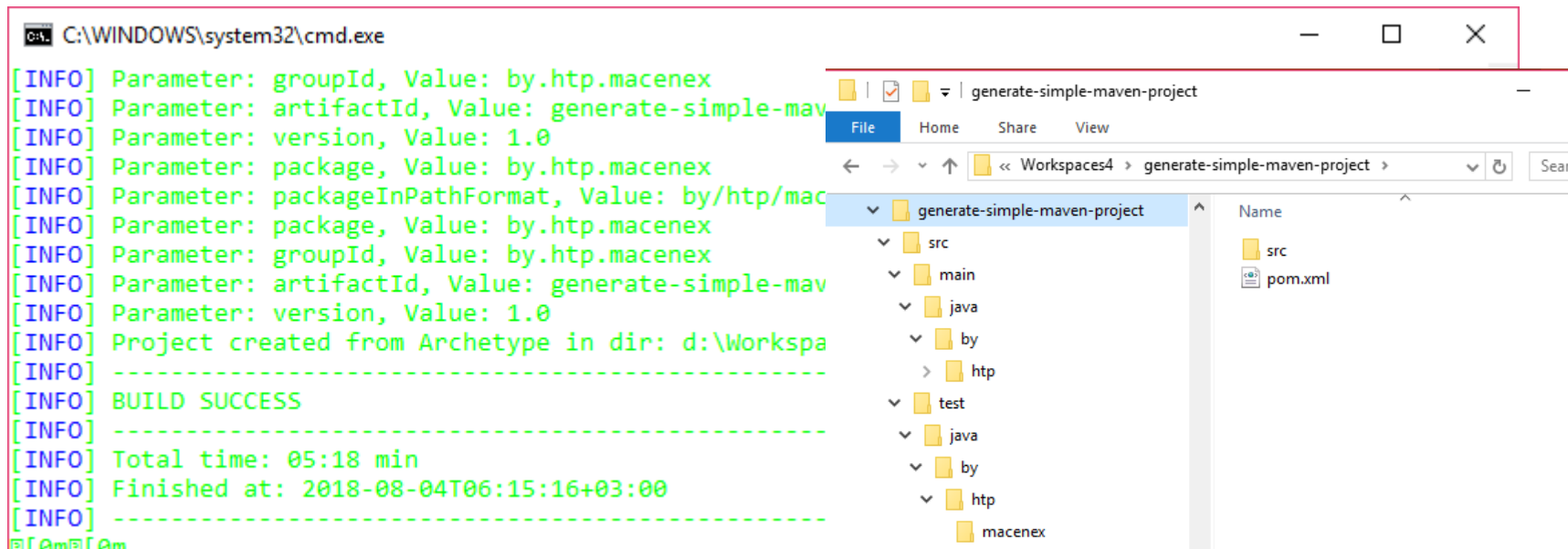
Заполните требуемые атрибуты maven-проекта.

A screenshot of a terminal window with a pink border. The title bar shows 'C:\ mvn archetype:generate' and standard window controls. The terminal output shows the process of downloading the maven-archetype-quickstart-1.3.jar from the spring repository and central repository. It then prompts the user to define values for groupId, artifactId, version, and package. The user enters 'by.htp.macenex' for groupId and package, 'generate-simple-maven-project' for artifactId, and '1.0' for version. The output ends with 'Y: : y_'.

```
C:\ mvn archetype:generate
Downloading from spring_repository: http://repo.spring.io/release/org/apache/maven/archetypes/maven-archetype-quickstart/1.3/maven-archetype-quickstart-1.3.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.3/maven-archetype-quickstart-1.3.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-quickstart/1.3/maven-archetype-quickstart-1.3.jar (7.0 kB at 66 kB/s)
Define value for property 'groupId': by.htp.macenex
Define value for property 'artifactId': generate-simple-maven-project
Define value for property 'version' 1.0-SNAPSHOT: : 1.0
Define value for property 'package' by.htp.macenex: :
Confirm properties configuration:
groupId: by.htp.macenex
artifactId: generate-simple-maven-project
version: 1.0
package: by.htp.macenex
Y: : y_
```

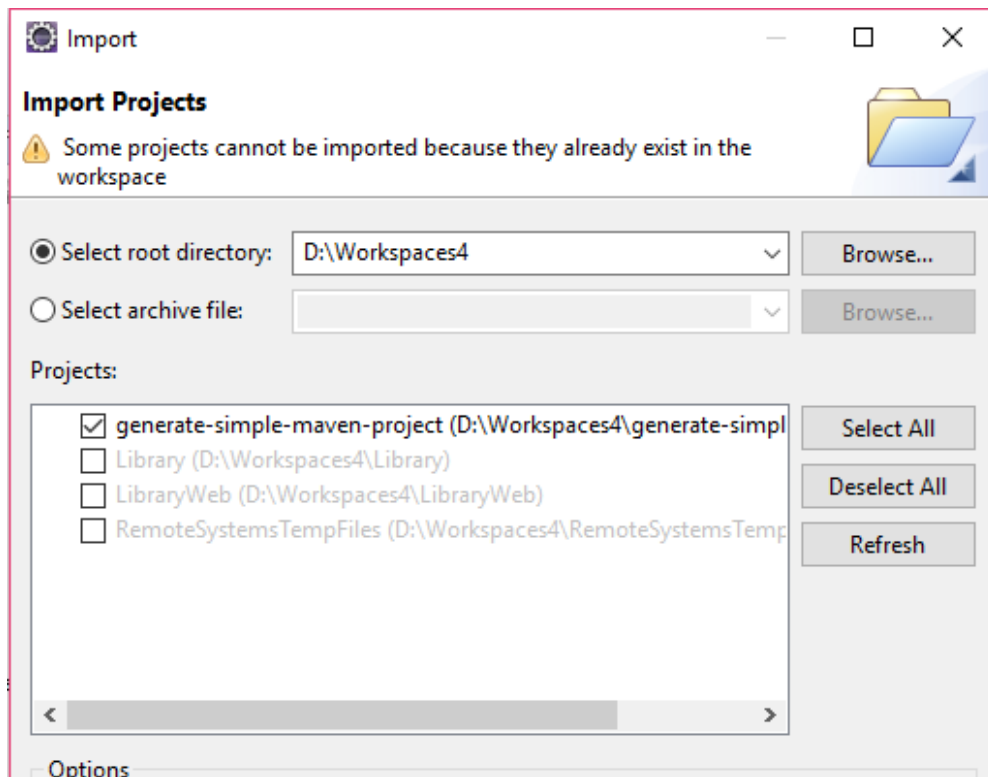
Maven. Unit 02

Проверьте созданный проект.



Конвертация maven-проекта в eclipse-maven-проект.

>mvn eclipse:eclipse



Maven. Unit 02

Часть автосгенериро- ванного pom.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<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/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>

  <groupId>by.htp.macenex</groupId>
  <artifactId>generate-simple-maven-project</artifactId>
  <version>1.0</version>

  <name>generate-simple-maven-project</name>
  <!-- FIXME change it to the project's website -->
  <url>http://www.example.com</url>

  <properties>
    <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
    <maven.compiler.source>1.7</maven.compiler.source>
    <maven.compiler.target>1.7</maven.compiler.target>
  </properties>

  <dependencies>
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>4.11</version>
      <scope>test</scope>
    </dependency>
  </dependencies>
```

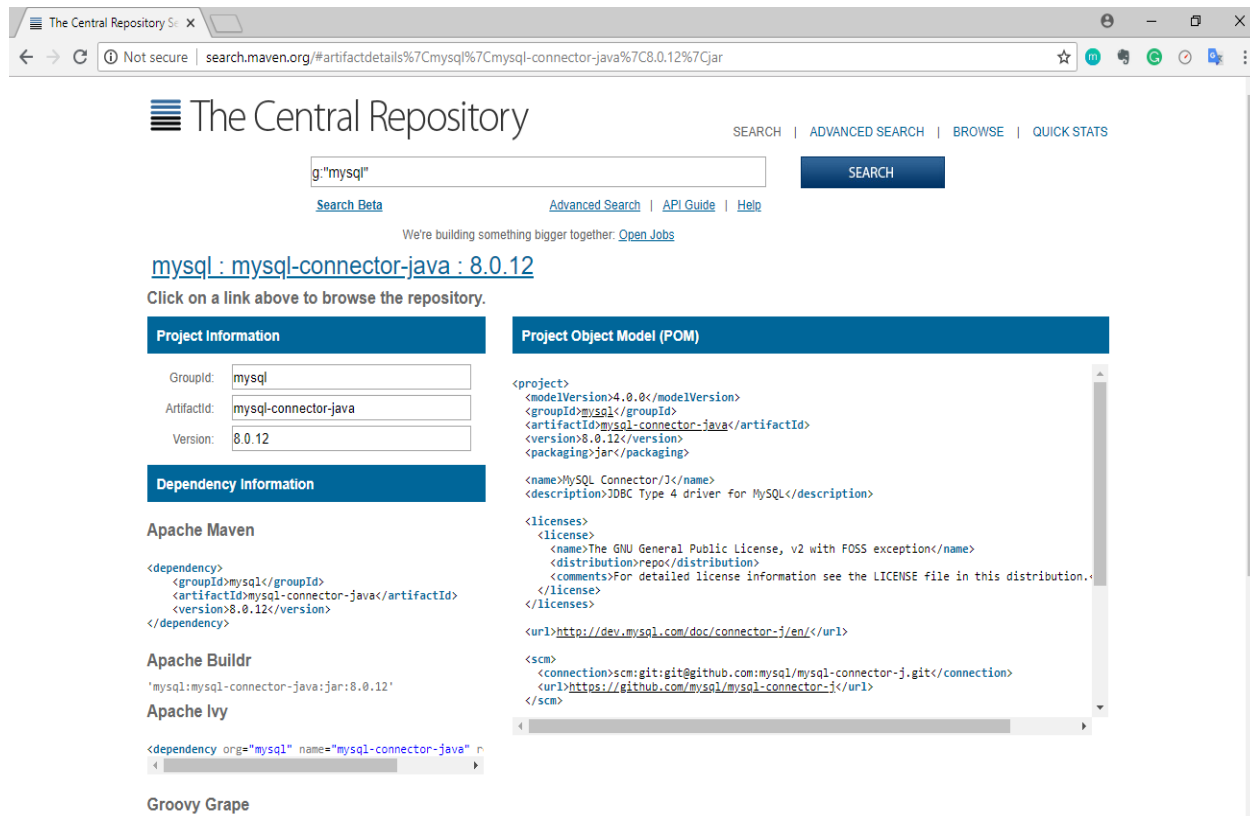
Maven. Unit 02

```
import java.sql.Connection;  
import java.sql.DriverManager;  
import java.sql.SQLException;
```

```
public class App {  
    public static void main( String[] args ) throws SQLException,  
        ClassNotFoundException  
    {  
        Class.forName("com.mysql.jdbc.Driver");  
        Connection connection =  
        DriverManager.getConnection("jdbc:mysql://127.0.0.1/htp",  
            "root",  
            "123456");  
        System.out.println( "Hello World!" );  
    }  
}
```

```
<dependency>  
    <groupId>mysql</groupId>  
    <artifactId>mysql-connector-java</artifactId>  
    <version>5.1.6</version>  
</dependency>
```


Maven. Unit 02



The screenshot shows a web browser window displaying the search results for the artifact `mysql:mysql-connector-java:8.0.12` on The Central Repository website. The browser's address bar shows the URL `search.maven.org/#artifactdetails%7Cmysql%7Cmysql-connector-java%7C8.0.12%7Cjar`. The page header includes the site logo and navigation links: [SEARCH](#), [ADVANCED SEARCH](#), [BROWSE](#), and [QUICK STATS](#). A search bar contains the text `g:"mysql"`, and a [SEARCH](#) button is visible. Below the search bar, there are links for [Search Beta](#), [Advanced Search](#), [API Guide](#), and [Help](#). A message states: "We're building something bigger together: [Open Jobs](#)".

The main content area is divided into two columns. The left column, titled "Project Information", contains a table with the following details:

Project Information	
GroupId:	mysql
ArtifactId:	mysql-connector-java
Version:	8.0.12

Below this table is a section titled "Dependency Information" which includes:

Apache Maven

```
<dependency>
  <groupId>mysql</groupId>
  <artifactId>mysql-connector-java</artifactId>
  <version>8.0.12</version>
</dependency>
```

Apache Buildr

```
'mysql:mysql-connector-java:jar:8.0.12'
```

Apache Ivy

```
<dependency org="mysql" name="mysql-connector-java" />
```

Groovy Grape

The right column, titled "Project Object Model (POM)", displays the XML content of the artifact's POM file:

```
<project>
  <modelVersion>4.0.0</modelVersion>
  <groupId>mysql</groupId>
  <artifactId>mysql-connector-java</artifactId>
  <version>8.0.12</version>
  <packaging>jar</packaging>

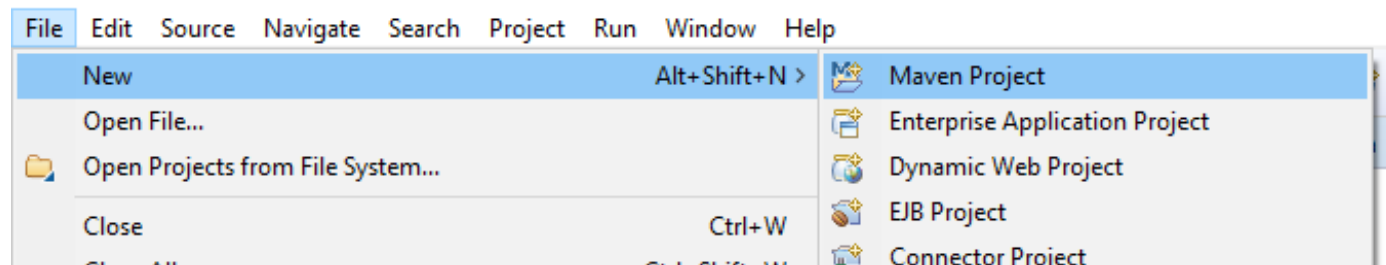
  <name>MySQL Connector/J</name>
  <description>JDBC Type 4 driver for MySQL</description>

  <licenses>
    <license>
      <name>The GNU General Public License, v2 with FOSS exception</name>
      <distribution>repo</distribution>
      <comments>For detailed license information see the LICENSE file in this distribution.</comments>
    </license>
  </licenses>

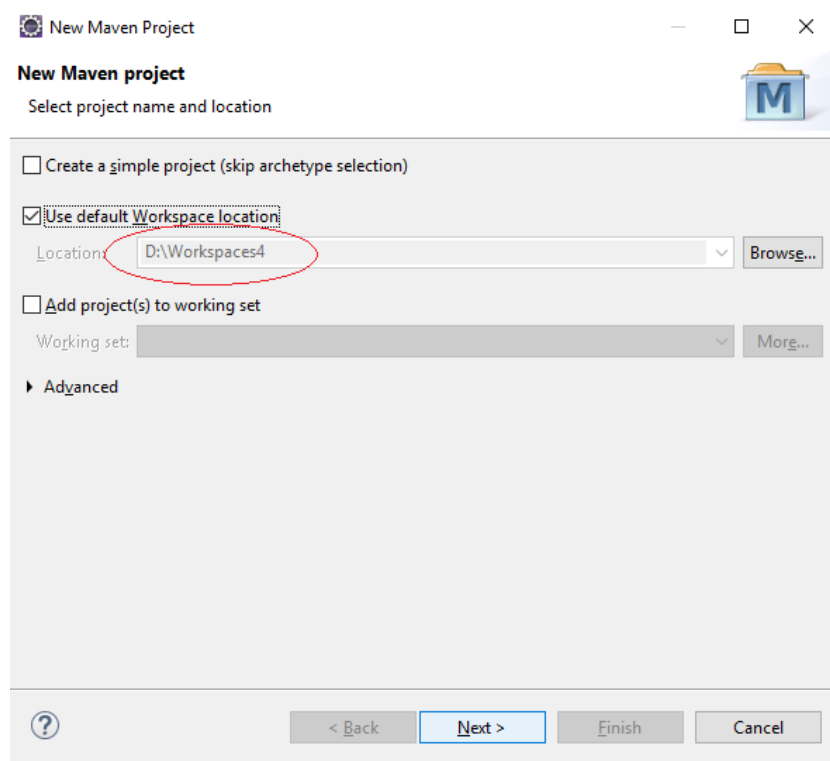
  <url>http://dev.mysql.com/doc/connector-j/en/</url>

  <scm>
    <connection>scm:git:github.com:mysql/mysql-connector-j.git</connection>
    <url>https://github.com/mysql/mysql-connector-j</url>
  </scm>
```

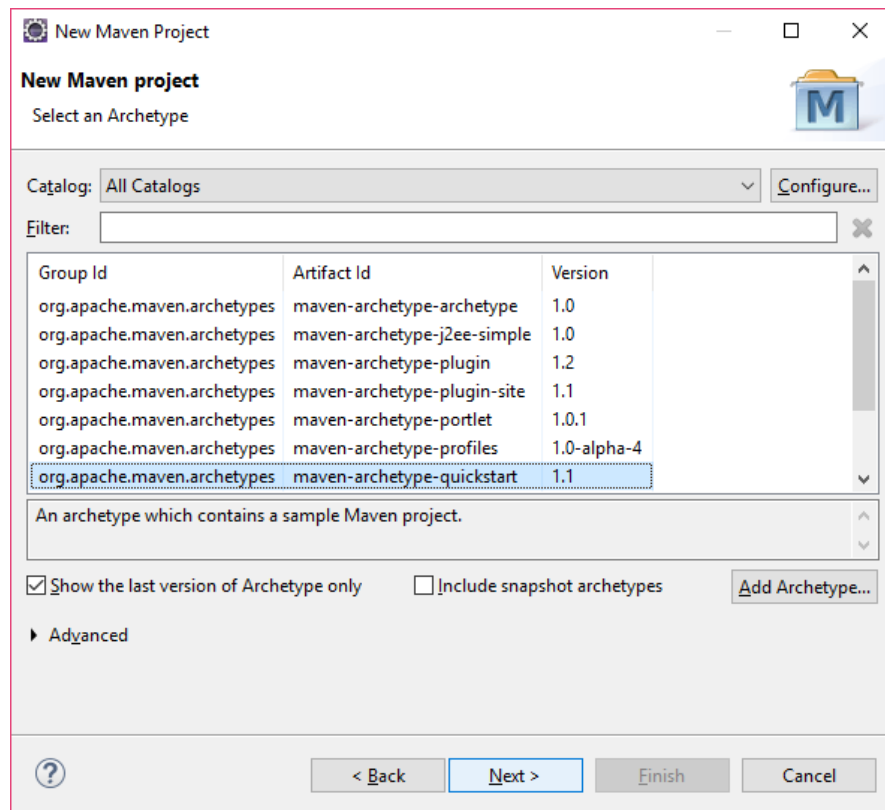
Создание maven-проекта в eclipse.



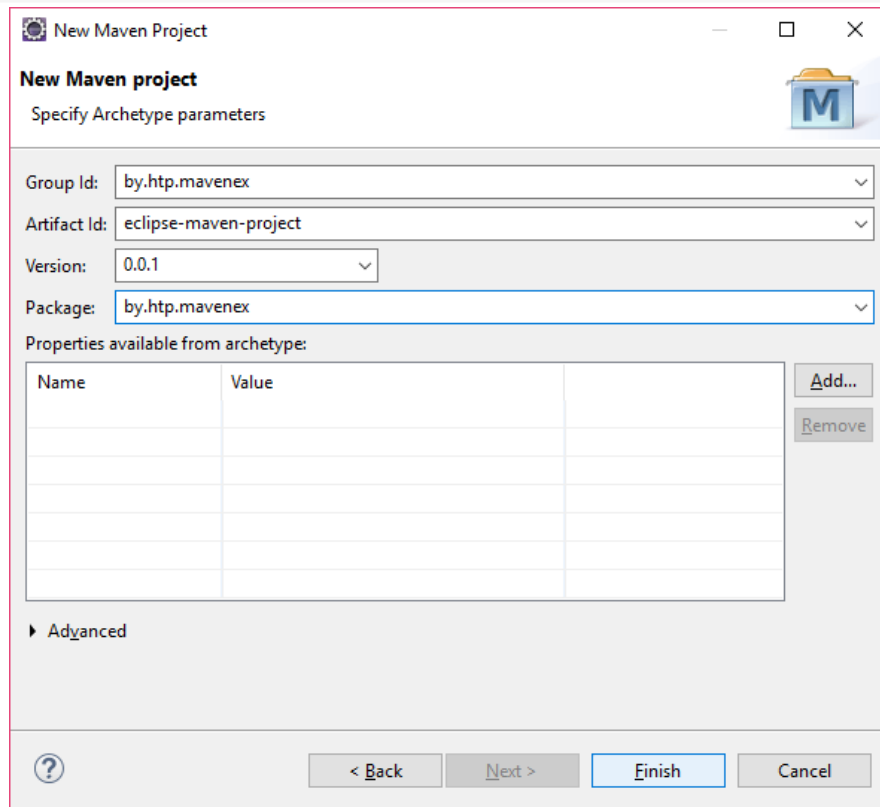
Maven. Unit 02



Maven. Unit 02



Maven. Unit 02



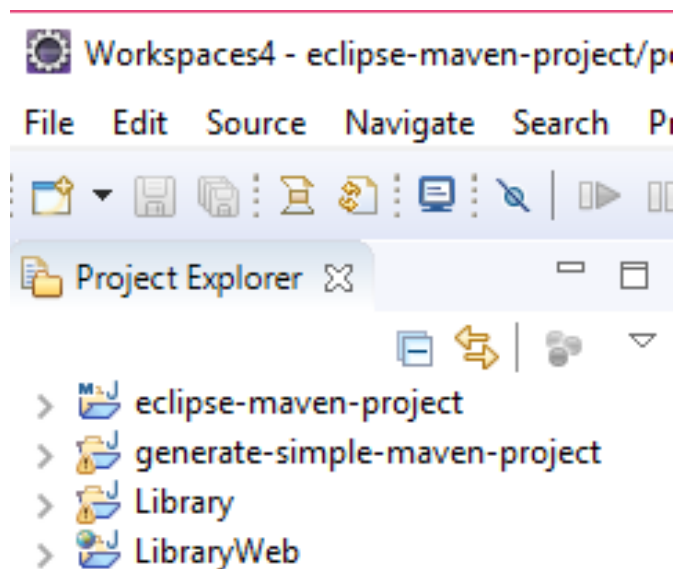
The screenshot shows the 'New Maven Project' dialog box in the Eclipse IDE. The dialog has a title bar with the Eclipse logo and the text 'New Maven Project'. Below the title bar, there is a section titled 'New Maven project' with a sub-label 'Specify Archetype parameters' and a folder icon with a blue 'M'.

The main area of the dialog contains several input fields:

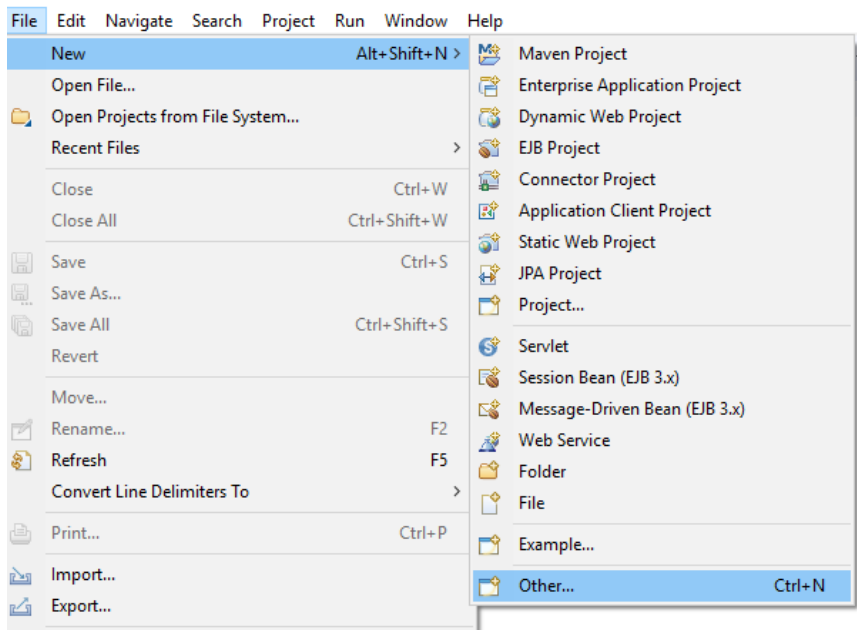
- Group Id:** A text box containing 'by.htp.mavenex' with a dropdown arrow on the right.
- Artifact Id:** A text box containing 'eclipse-maven-project' with a dropdown arrow on the right.
- Version:** A text box containing '0.0.1' with a dropdown arrow on the right.
- Package:** A text box containing 'by.htp.mavenex' with a dropdown arrow on the right.

Below these fields is a section titled 'Properties available from archetype:' which contains a table with two columns: 'Name' and 'Value'. The table is currently empty. To the right of the table are two buttons: 'Add...' and 'Remove'.

At the bottom of the dialog, there is a section titled 'Advanced' with a right-pointing arrow. Below this section are four buttons: a help button (question mark icon), '< Back', 'Next >', and 'Finish'. A 'Cancel' button is also present to the right of the 'Finish' button.

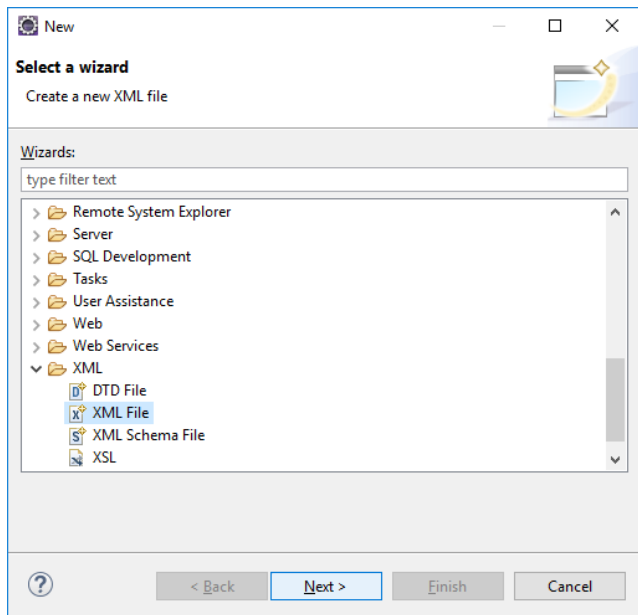


Создание pom.xml с нуля через Eclipse

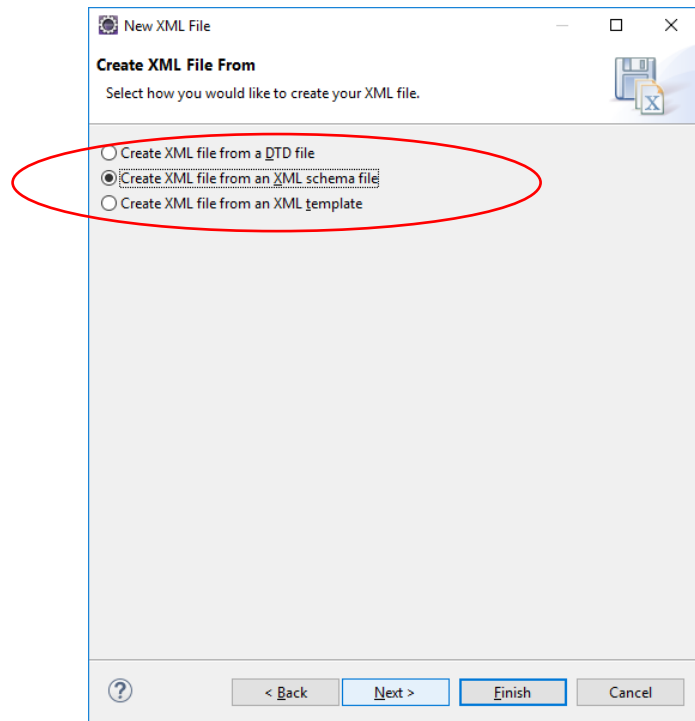
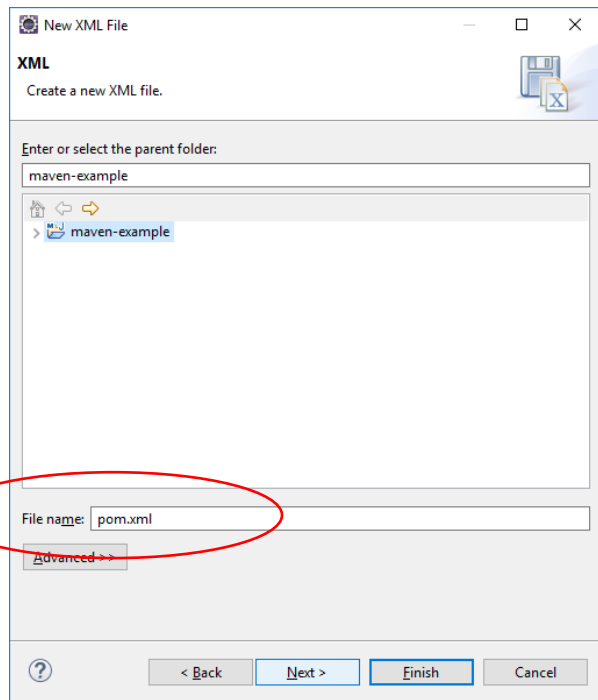


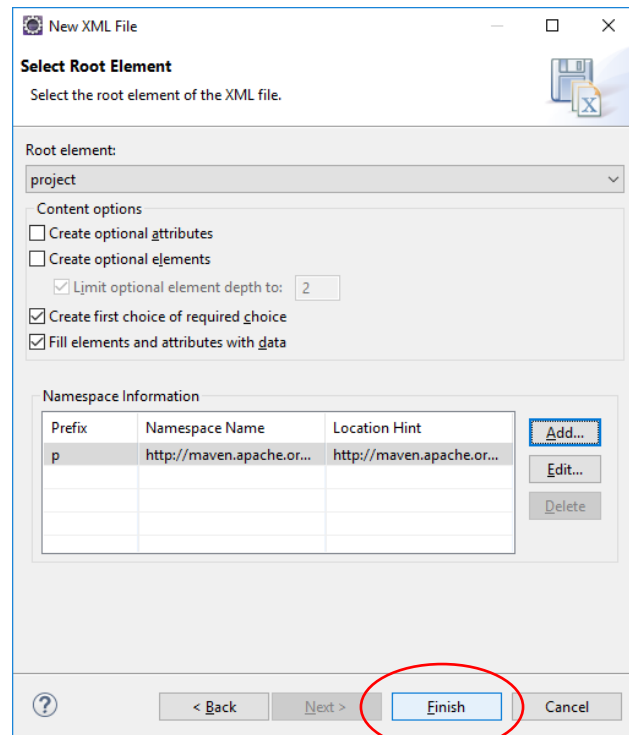
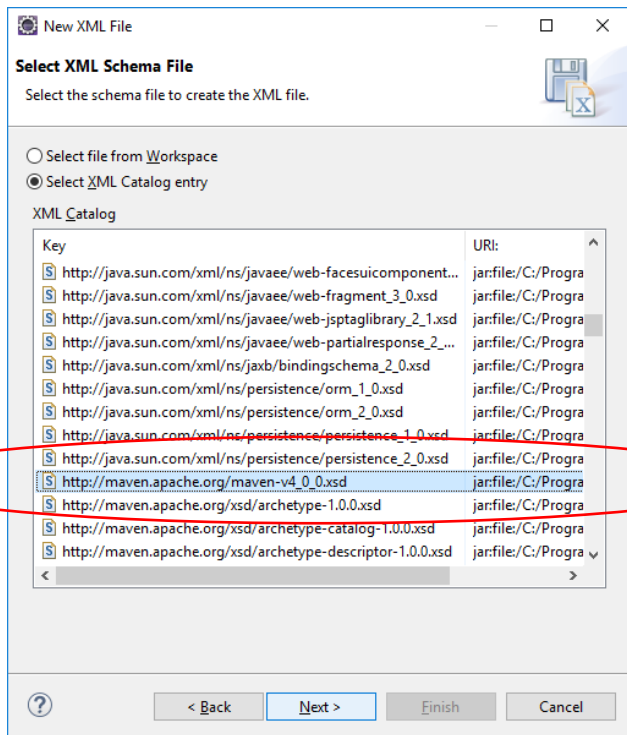
File -> New -> Other

Maven. Unit 02



XML -> XML File -> [Next]





X pom.xml

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <p:project xmlns:p="http://maven.apache.org/POM/4.0.0"
3   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4   xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd ">
5
6
7
8 </p:project>
9
```

```
<?xml version="1.0" encoding="UTF-8"?>
<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/xsd/maven-4.0.0.xsd">
```

```
  <modelVersion>4.0.0</modelVersion>
```

```
  <groupId>by.http.mavenex</groupId>
  <artifactId>maven-example</artifactId>
  <version>1.0</version>
```

```
  <name>maven-example</name>
```

```
  <url>http://www.example.com</url>
```

```
<properties>
  <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
  <maven.compiler.source>1.9</maven.compiler.source>
  <maven.compiler.target>1.9</maven.compiler.target>
</properties>

<licenses>
  <license>
    <name>Apache License</name>
    <comments>comments</comments>
  </license>
</licenses>

<organization>
  <name>myCompany</name>
  <url>http://mycompany.com</url>
</organization>
```

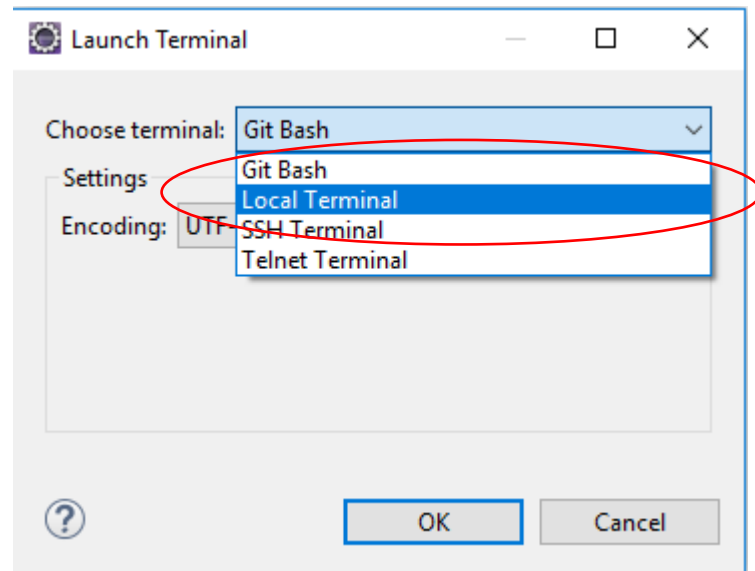
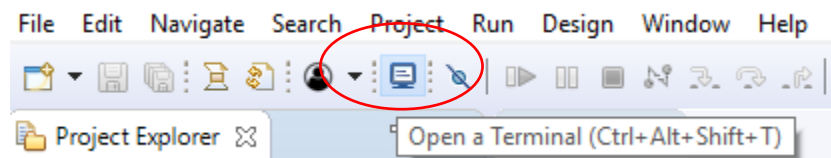
```
<developers>
  <developer>
    <name>Ivan Ivanov</name>
    <email>ivan@gmail.com</email>
  </developer>
</developers>
```

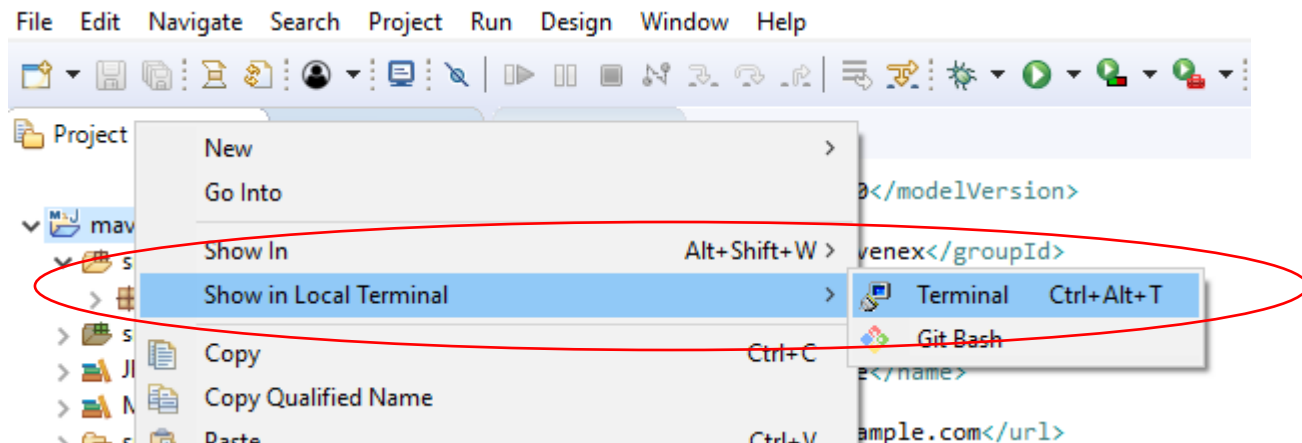
```
<dependencies>
  <dependency>
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>4.12</version>
    <scope>test</scope>
  </dependency>
</dependencies>
```

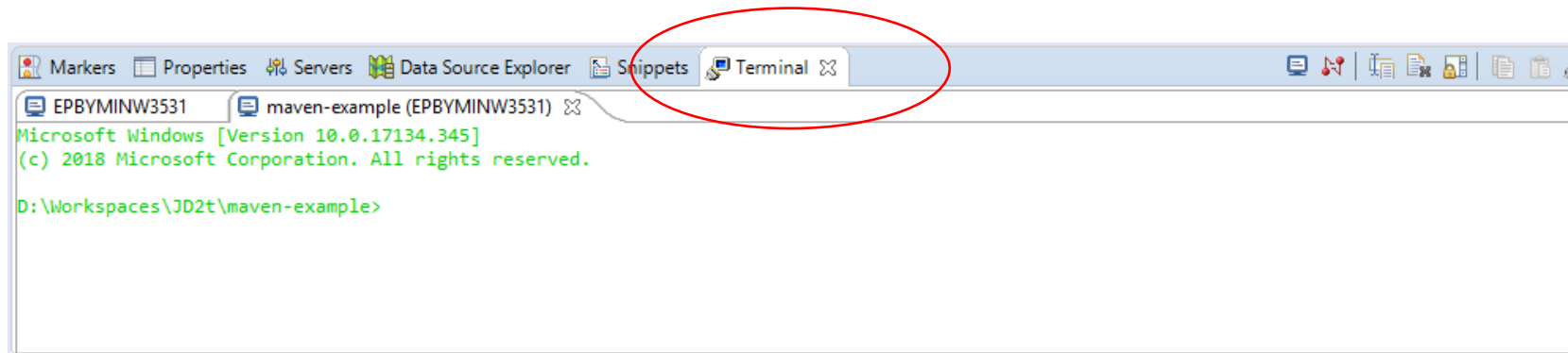
```
<build>
  <pluginManagement><!-- lock down plugins versions to avoid using Maven defaults (may be moved to
  parent pom) -->
  <plugins>
    <!-- clean lifecycle, see https://maven.apache.org/ref/current/maven-
    core/lifecycles.html#clean Lifecycle -->
    <plugin>
      <artifactId>maven-clean-plugin</artifactId>
      <version>3.1.0</version>
    </plugin>
    <!-- default lifecycle, jar packaging: see https://maven.apache.org/ref/current/maven-
    core/default-bindings.html#Plugin bindings for jar packaging -->
    <plugin>
      <artifactId>maven-resources-plugin</artifactId>
      <version>3.0.2</version>
    </plugin>
    <plugin>
      <artifactId>maven-compiler-plugin</artifactId>
      <version>3.8.0</version>
    </plugin>
```

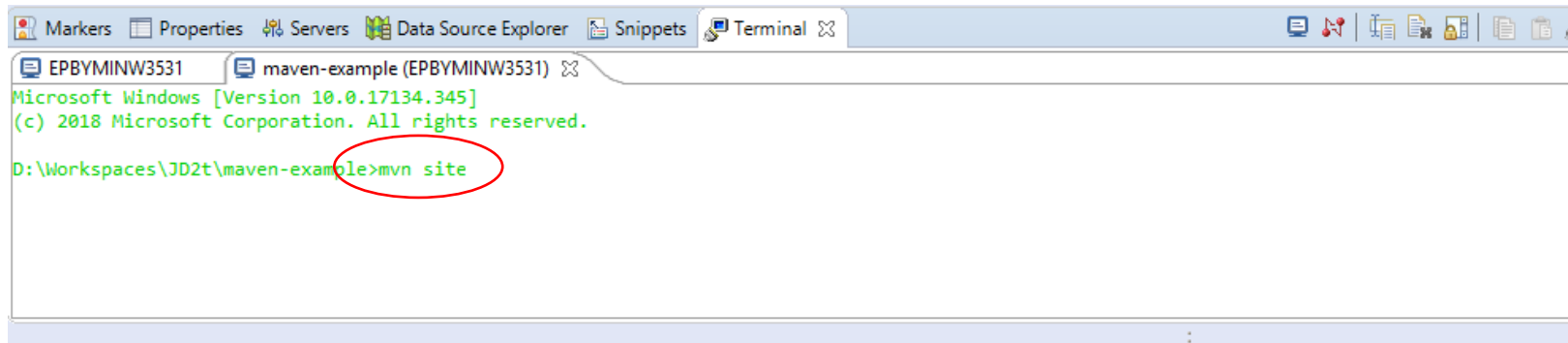
```
<plugin>
  <artifactId>maven-surefire-plugin</artifactId>
  <version>2.22.1</version>
</plugin>
<plugin>
  <artifactId>maven-jar-plugin</artifactId>
  <version>3.0.2</version>
</plugin>
<plugin>
  <artifactId>maven-install-plugin</artifactId>
  <version>2.5.2</version>
</plugin>
<plugin>
  <artifactId>maven-deploy-plugin</artifactId>
  <version>2.8.2</version>
</plugin>
```

```
<!-- site lifecycle, see https://maven.apache.org/ref/current/maven-core/lifecycles.html#site\_Lifecycle ->
<plugin>
  <artifactId>maven-site-plugin</artifactId>
  <version>3.7.1</version>
</plugin>
<plugin>
  <artifactId>maven-project-info-reports-plugin</artifactId>
  <version>3.0.0</version>
</plugin>
</plugins>
</pluginManagement>
</build>
</project>
```





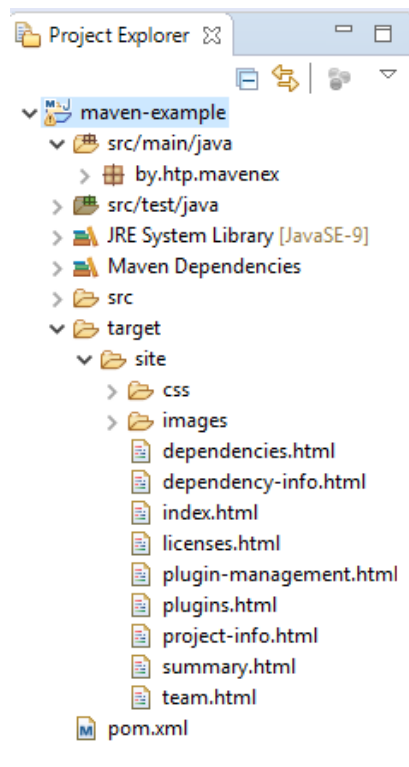




The screenshot shows an IDE interface with a terminal window. The terminal has two tabs: 'EPBYMINW3531' and 'maven-example (EPBYMINW3531)'. The active tab shows the following text: 'Microsoft Windows [Version 10.0.17134.345]' and '(c) 2018 Microsoft Corporation. All rights reserved.' followed by a prompt 'D:\Workspaces\JD2t\maven-example>'. The command 'mvn site' is entered and circled in red. The IDE's top bar includes 'Markers', 'Properties', 'Servers', 'Data Source Explorer', 'Snippets', and 'Terminal'.

```
Microsoft Windows [Version 10.0.17134.345]
(c) 2018 Microsoft Corporation. All rights reserved.

D:\Workspaces\JD2t\maven-example>mvn site
```



pom.xmlindex.htmlemaven-example – Project Information

file:///D:/Workspaces/JD2t/maven-example/target/site/project-info.html

maven-example

Last Published: 2019-02-22 | Version: 1.0maven-example

Project Documentation

▼ Project Information

[Dependencies](#)

[Dependency Information](#)

[About](#)

[Licenses](#)


[Plugin Management](#)

[Plugins](#)

[Summary](#)

[Team](#)

Built by:



Project Information

This document provides an overview of the various documents and links that are part of this project's general information. All of this content is automatically generated by [Maven](#) on behalf of the project.

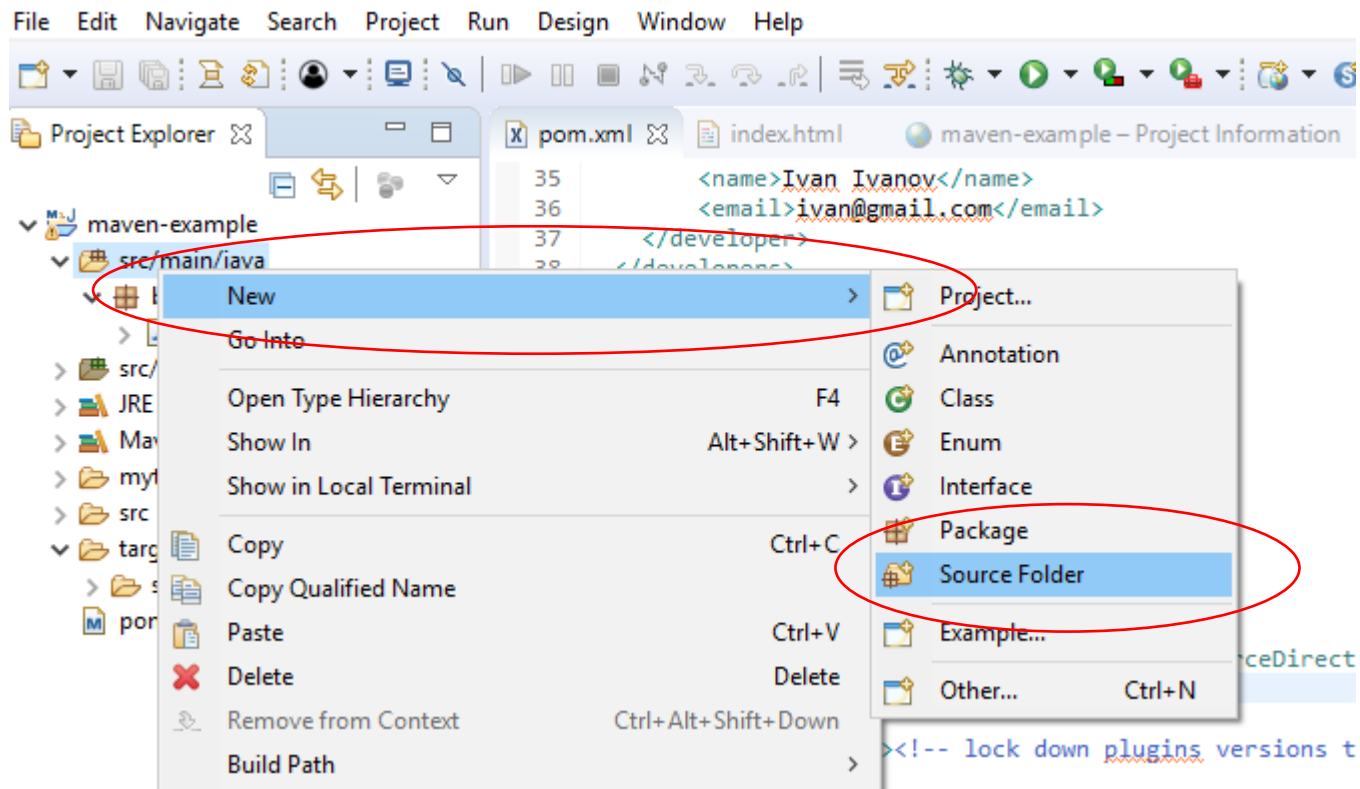
Overview

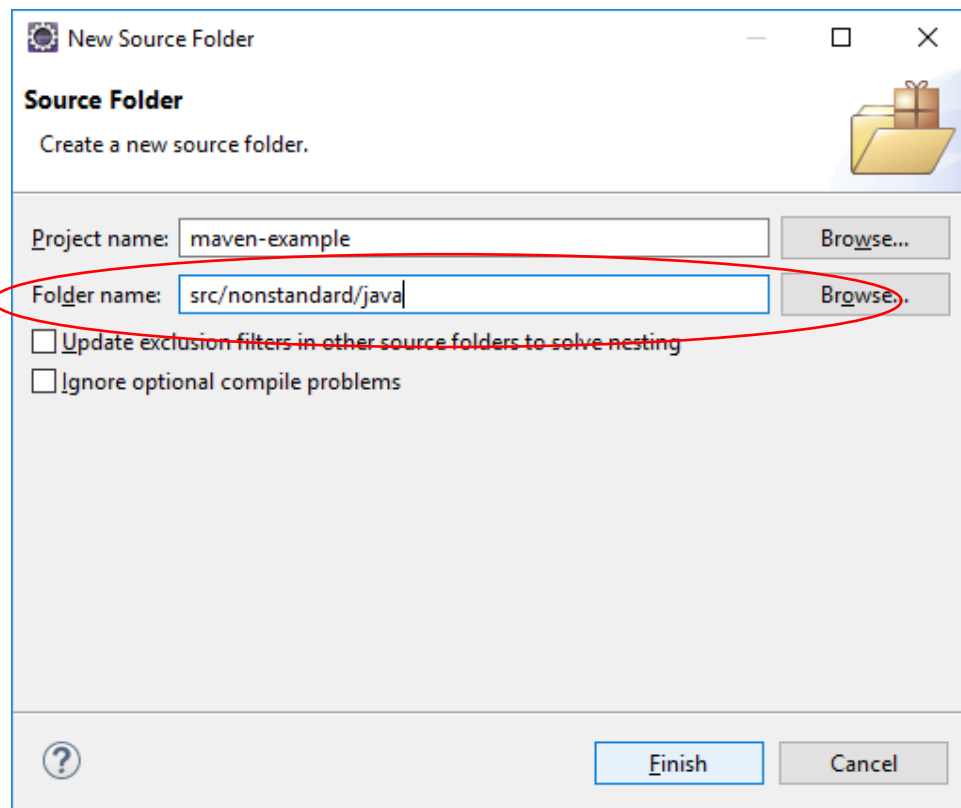
Document	Description
Dependencies	This document lists the project's dependencies and provides information on each dependency.
Dependency Information	This document describes how to include this project as a dependency using various dependency management tools.
About	There is currently no description associated with this project.
Licenses	This document lists the project license(s).

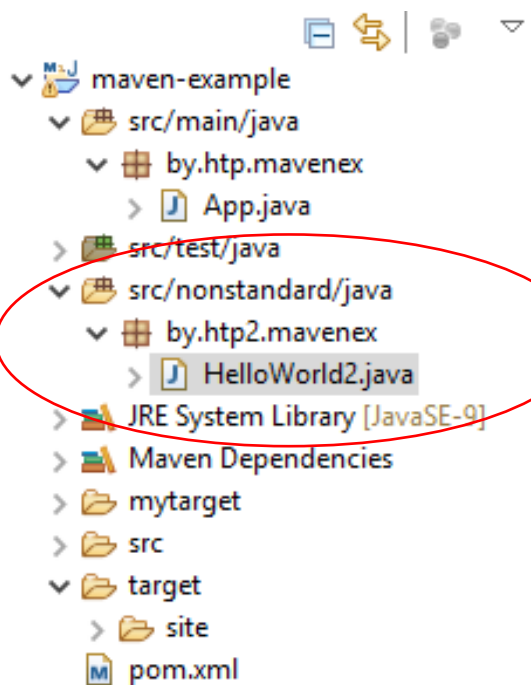
```
<build>
```

```
<sourceDirectory>src/nonstandard/java</sourceDirectory>
```

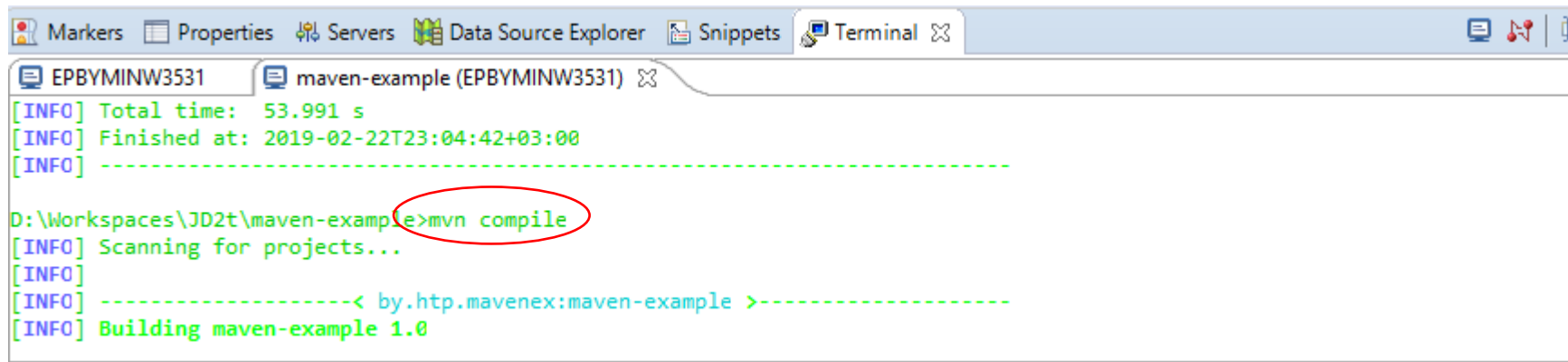
```
<directory>mytarget</directory>
```



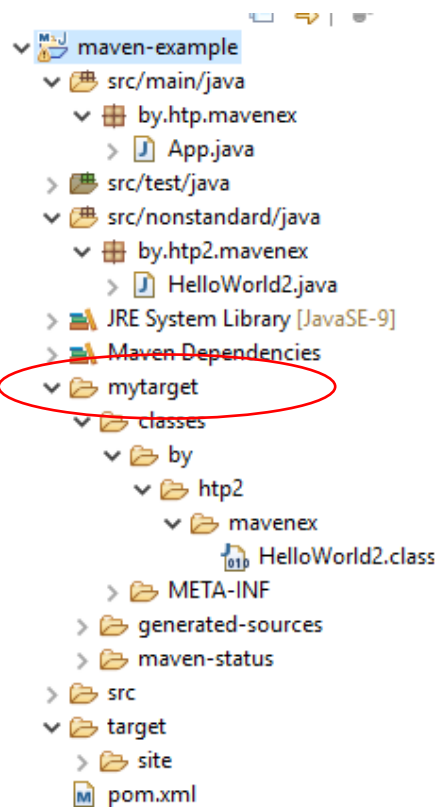


```
1 package by.http2.mavenex;
2
3 public class HelloWorld2 {
4
5     public static void main(String[] args) {
6         System.out.println("Hello, world 2!!!");
7     }
8 }
9
10 }
11
```



The screenshot shows an IDE's terminal window with the following tabs: Markers, Properties, Servers, Data Source Explorer, Snippets, and Terminal. The terminal is currently displaying the output of a Maven build. The output includes information about the total time, the finish time, and a separator line. Below this, the command `D:\Workspaces\JD2t\maven-example>mvn compile` is entered, with `mvn compile` circled in red. The terminal then shows the progress of scanning for projects and building the `maven-example 1.0` project.

```
EPBYMINW3531  maven-example (EPBYMINW3531)
[INFO] Total time: 53.991 s
[INFO] Finished at: 2019-02-22T23:04:42+03:00
[INFO] -----
D:\Workspaces\JD2t\maven-example>mvn compile
[INFO] Scanning for projects...
[INFO]
[INFO] -----< by.http.mavenex:maven-example >-----
[INFO] Building maven-example 1.0
```



MAVEN. UNIT 02