

# **SPRAWOZDANIE**

Zajęcia: Informatyczne Systemy Medyczne  
Prowadzący: prof. dr hab. Vasyl Marstenyuk

**Laboratorium:** Zajęcie 2

**Data:** 07.10.2020 r.

**Temat:** „Podstawy systemu OpenMRS”

**Wariant 1**

Szymon Pęczalski  
Informatyka II stopień,  
stacjonarne,  
2 semestr,  
Gr. B

<https://github.com/SzPeczalski/ISM>

## 1. Instalacja:

- Java:

```
C:\Users\Szymon Pęczalski>java -version
java version "1.8.0_261"
Java(TM) SE Runtime Environment (build 1.8.0_261-b12)
Java HotSpot(TM) 64-Bit Server VM (build 25.261-b12, mixed mode)
```

- Maven:

Nazwa	Data modyfikacji	Typ	Rozmiar
bin	07.11.2019 12:32	Folder plików	
boot	07.11.2019 12:32	Folder plików	
conf	07.11.2019 12:32	Folder plików	
lib	07.11.2019 12:32	Folder plików	
LICENSE	07.11.2019 12:32	Plik	18 KB
NOTICE	07.11.2019 12:32	Plik	6 KB
README	07.11.2019 12:32	Dokument tekstowy	3 KB

- Zmienne środowiskowe:

Nowa zmienna użytkownika

Nazwa zmiennej: MAVEN\_HOME

Wartość zmiennej: C:\maven\apache-maven-3.6.3

Przeglądaj katalog... Przeglądaj plik... OK Anuluj

Edycja zmiennej środowiskowej

%USERPROFILE%\AppData\Local\Microsoft\WindowsApps  
C:\Users\Szymon Pęczalski\AppData\Local\Programs\Microsoft VS Co...  
C:\Program Files\Java\jre1.8.0\_261\bin  
C:\maven\apache-maven-3.6.3\bin

Nowy Edytuj Przeglądaj... Usuń

Przenieś w górę Przenieś w dół

Edytuj tekst...

OK Anuluj

```
Wiersz polecenia
Microsoft Windows [Version 10.0.19041.630]
(c) 2020 Microsoft Corporation. Wszelkie prawa zastrzeżone.

C:\Users\Szymon Pęczalski>mvn -version
Apache Maven 3.6.3 (cecedd343002696d0abb50b32b541b8a6ba2883f)
Maven home: C:\maven\apache-maven-3.6.3\bin\..
Java version: 1.8.0_261, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jre1.8.0_261
Default locale: pl_PL, platform encoding: Cp1250
OS name: "windows 10", version: "10.0", arch: "amd64", family: "windows"

C:\Users\Szymon Pęczalski>
```

- OpenMRS SDK:

```
Administrator: Wiersz polecenia
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/spring-context/2.5.6/spring-context-2.5.6.jar (477 kB at 12 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-artifact-manager/2.2.1/maven-artifact-manager-2.2.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-plugin-registry/2.2.1/maven-plugin-registry-2.2.1.jar (30 kB at 777 B/s)
Downloaded from central: https://repo.maven.apache.org/maven2/backport-util-concurrent/backport-util-concurrent/3.1/backport-util-concurrent-3.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-artifact-manager/2.2.1/maven-artifact-manager-2.2.1.jar (68 kB at 1.7 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-exec/1.3/commons-exec-1.3.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-project/2.2.1/maven-project-2.2.1.jar (156 kB at 4.0 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-exec/1.3/commons-exec-1.3.jar (54 kB at 1.4 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/com/google/guava/guava/13.0/guava-13.0.jar (1.9 MB at 48 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/backport-util-concurrent/backport-util-concurrent/3.1/backport-util-concurrent-3.1.jar (332 kB at 8.3 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/spring-beans/2.5.6/spring-beans-2.5.6.jar (488 kB at 12 kB/s)
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/com/atlassian/jira/jira-rest-java-client/2.0.0-m2/jira-rest-java-client-2.0.0-m2.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/com/atlassian/sal/sal-api/2.7.0/sal-api-2.7.0.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/com/atlassian/httpclient/atlassian-httpclient-spi/0.11.0/atlassian-httpclient-spi-0.11.0.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/com/atlassian/httpclient/atlassian-httpclient-api/0.11.0/atlassian-httpclient-api-0.11.0.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/com/atlassian/httpclient/atlassian-httpclient-apache-httpcomponents/0.11.0/atlassian-httpclient-apache-httpcomponents-0.11.0.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/com/atlassian/event/atlassian-event/2.2.0/atlassian-event-2.2.0.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/org/apache/httpcomponents/httppsyncclient-cache/4.0-beta3-atlassian-1/httppsyncclient-cache-4.0-beta3-atlassian-1.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/org/apache/httpcomponents/httpclient-cache/4.2.1-atlassian-2/httpclient-cache-4.2.1-atlassian-2.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/org/apache/httpcomponents/httppsyncclient/4.0-beta3-atlassian-1/httppsyncclient-4.0-beta3-atlassian-1.jar
Downloaded from jgit-repository: https://repo.eclipse.org/content/groups/releases/com/atlassian/util/concurrent/atlassian-util-concurrent/2.4.0-M9/atlassian-util-concurrent-2.4.0-M9.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/com/atlassian/jira/jira-rest-java-client/2.0.0-m2/jira-rest-java-client-2.0.0-m2.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/com/atlassian/sal/sal-api/2.7.0/sal-api-2.7.0.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/com/atlassian/httpclient/atlassian-httpclient-spi/0.11.0/atlassian-httpclient-spi-0.11.0.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/com/atlassian/httpclient/atlassian-httpclient-api/0.11.0/atlassian-httpclient-api-0.11.0.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/com/atlassian/httpclient/atlassian-httpclient-apache-httpcomponents/0.11.0/atlassian-httpclient-apache-httpcomponents-0.11.0.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/com/atlassian/event/atlassian-event/2.2.0/atlassian-event-2.2.0.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/org/apache/httpcomponents/httppsyncclient-cache/4.0-beta3-atlassian-1/httppsyncclient-cache-4.0-beta3-atlassian-1.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/org/apache/httpcomponents/httpclient-cache/4.2.1-atlassian-2/httpclient-cache-4.2.1-atlassian-2.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/org/apache/httpcomponents/httppsyncclient/4.0-beta3-atlassian-1/httppsyncclient-4.0-beta3-atlassian-1.jar
Downloaded from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/com/atlassian/util/concurrent/atlassian-util-concurrent/2.4.0-M9/atlassian-util-concurrent-2.4.0-M9.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/jira/jira-rest-java-client/2.0.0-m2/jira-rest-java-client-2.0.0-m2.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/httpclient/atlassian-httpclient-spi/0.11.0/atlassian-httpclient-spi-0.11.0.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/sal/sal-api/2.7.0/sal-api-2.7.0.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/httpclient/atlassian-httpclient-api/0.11.0/atlassian-httpclient-api-0.11.0.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/httpclient/atlassian-httpclient-apache-httpcomponents/0.11.0/atlassian-httpclient-apache-httpcomponents-0.11.0.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/event/atlassian-event/2.2.0/atlassian-event-2.2.0.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/sal/sal-api/2.7.0/sal-api-2.7.0.jar (39 kB at 35 kB/s)
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/org/apache/httpcomponents/httppsyncclient-cache/4.0-beta3-atlassian-1/httppsyncclient-cache-4.0-beta3-atlassian-1.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/org/apache/httpcomponents/httpclient-cache/4.2.1-atlassian-2/httpclient-cache-4.2.1-atlassian-2.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/org/apache/httpcomponents/httppsyncclient/4.0-beta3-atlassian-1/httppsyncclient-4.0-beta3-atlassian-1.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/jira/jira-rest-java-client/2.0.0-m2/jira-rest-java-client-2.0.0-m2.jar (273 kB at 177 kB/s)
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/util/concurrent/atlassian-util-concurrent/2.4.0-M9/atlassian-util-concurrent-2.4.0-M9.jar
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/event/atlassian-event/2.2.0/atlassian-event-2.2.0.jar (40 kB at 24 kB/s)
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/org/apache/httpcomponents/httppsyncclient-cache/4.0-beta3-atlassian-1/httppsyncclient-cache-4.0-beta3-atlassian-1.jar (34 kB at 20 kB/s)
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/org/apache/httpcomponents/httpclient-cache/4.2.1-atlassian-2/httpclient-cache-4.2.1-atlassian-2.jar (83 kB at 40 kB/s)
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/org/apache/httpcomponents/httpclient-cache/4.2.1-atlassian-2/httpclient-cache-4.2.1-atlassian-2.jar (115 kB at 55 kB/s)
Downloaded from atlassian-public: https://m2proxy.atlassian.com/repository/public/com/atlassian/util/concurrent/atlassian-util-concurrent/2.4.0-M9/atlassian-util-concurrent-2.4.0-M9.jar (133 kB at 58 kB/s)

Would you be willing to help us improve SDK by sending us once in a while anonymous usage statistics (you can always change your mind by going to sdk-stats.properties and setting statsEnabled to false) [Y/n]: n
[INFO] SDK installed successfully, settings file: C:\Users\Szymon Pęczalski\.m2\settings.xml
[INFO] Now you can use sdk: mvn openmrs-sdk:<task_name>
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 11:29 min
[INFO] Finished at: 2020-12-05T11:28:13+01:00
[INFO] -----
C:\Windows\System32>
```



## Tworzenie przez Maven:

```
Administrator: Wiersz polecenia - mvn openmrs-sdksetup -DserverId=webservices-dev -Dplatform=2.0.0
mbed-core-7.0.100.jar (2.8 MB at 338 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/commons-lang/commons-lang/2.6/commons-lang-2.6.jar (284 kB
at 33 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/com/fasterxml/jackson/core/jackson-core/2.9.10/jackson-cor
e-2.9.10.jar (326 kB at 36 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/com/fasterxml/jackson/core/jackson-databind/2.9.10.4/jacks
on-databind-2.9.10.4.jar (1.3 MB at 148 kB/s)
_
Setting up a new server...
[INFO] artifact org.openmrs.distro:platform: checking for updates from openmrs-repo
[WARNING] repository metadata for: 'artifact org.openmrs.distro:platform' could not be retrieved from repository: openmr
s-repo due to an error: Transfer failed for http://mavenrepo.openmrs.org/nexus/content/repositories/public/org/openmrs/d
istro/platform/maven-metadata.xml
[INFO] artifact org.openmrs.distro:platform: checking for updates from openmrs-repo-thirdparty
[WARNING] repository metadata for: 'artifact org.openmrs.distro:platform' could not be retrieved from repository: openmr
s-repo-thirdparty due to an error: Transfer failed for http://mavenrepo.openmrs.org/nexus/content/repositories/thirdpart
y/org/openmrs/distro/platform/maven-metadata.xml
[INFO] artifact org.openmrs.distro:platform: checking for updates from openmrs-bintray-repo
[INFO] artifact org.openmrs.distro:platform: checking for updates from central
Downloading from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/org/apache/maven/maven-art
ifact/2.0.9/maven-artifact-2.0.9.pom
Downloading from openmrs-bintray-repo: https://dl.bintray.com/openmrs/maven/org/apache/maven/maven-artifact/2.0.9/maven-
artifact-2.0.9.pom
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-artifact/2.0.9/maven-artifact-2.0.
9.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-artifact/2.0.9/maven-artifact-2.0.9
.pom (1.6 kB at 20 kB/s)
Downloading from openmrs-repo: http://mavenrepo.openmrs.org/nexus/content/repositories/public/org/apache/maven/maven/2.0
.9/maven-2.0.9.pom
_
```

```
WybierzWiersz polecenia
1) H2
2) MySQL 5.6 (requires pre-installed MySQL 5.6)
3) MySQL 5.6 in SDK docker container (requires pre-installed Docker)
4) Existing docker container (requires pre-installed Docker)

Which one do you choose? [1/2/3/4]: 1
[INFO] Configured Artifact: com.h2database:h2:1.4.190:jar
[INFO] Copying h2-1.4.190.jar to C:\Users\szpec\openmrs\webservices-dev\h2-1.4.190.jar

The specified database openmrs-webservices-dev does not exist and it will be created for you.

Note: JDK 1.8 is needed for platform version 2.0.0.

Which JDK would you like to use to run this server?:
1) JAVA_HOME (currently: C:\Program Files\AdoptOpenJDK\jre-8.0.275.1-hotspot)
2) Other...

Which one do you choose? [1/2]: 2

Custom JDK path: C:\Program Files\Java\jdk1.8.0_181
[INFO] Server configured successfully, path: C:\Users\szpec\openmrs\webservices-dev
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 04:11 min
[INFO] Finished at: 2020-12-06T16:07:09+01:00
[INFO] -----

C:\Users\szpec>
```

## 1. Tworzenie kilku instancji serwerów OpenMRS:

```
Wiersz polecenia - mvn openmrs-sdk:run
Note: JDK 1.8 is needed for platform version 2.0.0.

Which JDK would you like to use to run this server?:
1) JAVA_HOME (currently: C:\Program Files\AdoptOpenJDK\jre-8.0.275.1-hotspot)
2) Other...

Which one do you choose? [1/2]: 2

Custom JDK path: C:\Program Files\Java\jdk1.8.0_181
[INFO] Server configured successfully, path: C:\Users\szpec\openmrs\webservices-dev
[INFO] BUILD SUCCESS
[INFO] Total time: 04:11 min
[INFO] Finished at: 2020-12-06T16:07:09+01:00
[INFO]

C:\Users\szpec>mvn openmrs-sdk:run
[INFO] Scanning for projects...
[INFO] -----< org.apache.maven:standalone-pom >-----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----[ pom ]-----
[INFO] --- openmrs-sdk-maven-plugin:3.13.6:run (default-cli) @ standalone-pom ---
You have the following servers::
1) webservices-dev

Which one do you choose? [1]: _
```

## 2. Tworzenie projektu z archetypu:

```
Wiersz polecenia - mvn openmrs-sdk:create-project
Microsoft Windows [Version 10.0.19041.630]
(c) 2020 Microsoft Corporation. Wszelkie prawa zastrzeżone.

C:\Users\szpec>mvn openmrs-sdk:create-project
[INFO] Scanning for projects...
[INFO] -----< org.apache.maven:standalone-pom >-----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----[ pom ]-----
[INFO] --- openmrs-sdk-maven-plugin:3.13.6:create-project (default-cli) @ standalone-pom ---

What kind of project would you like to create?:
1) Platform module
2) Reference Application module
3) Open Web App

Which one do you choose? [1/2/3]: 1

Module id uniquely identifies your module in the OpenMRS world.

It is advised to consult your module id on https://talk.openmrs.org
to eliminate possible collisions.

Module id must consists of lowercase letters, must start from
a letter, can contain alphanumerics and dots, e.g. webservices.rest,
metadatasharing, reporting, htmlformentry.

Please specify mvn-id (default: 'basicexample'): basicexample
```

```
ic/org/openmrs/maven/archetypes/openmrs-sdk-archetype-module-platform/3.13.6/openmrs-sdk-archetype-module-platform-3.13.6.pom (1.2 kB at 1.7 kB/s)
[INFO] -----
[INFO] Using following parameters for creating project from Archetype: openmrs-sdk-archetype-module-platform:3.13.6
[INFO] -----
[INFO] Parameter: groupId, Value: org.openmrs.module
[INFO] Parameter: artifactId, Value: basicexample
[INFO] Parameter: version, Value: 1.0.0-SNAPSHOT
[INFO] Parameter: package, Value: org.openmrs.module.basicexample
[INFO] Parameter: packageInPathFormat, Value: org/openmrs/module/basicexample
[INFO] Parameter: moduleClassnamePrefix, Value: Basicexample
[INFO] Parameter: moduleName, Value: Basicexample
[INFO] Parameter: moduleAuthor, Value: szpec
[INFO] Parameter: moduleDescription, Value: no description
[INFO] Parameter: groupId, Value: org.openmrs.module
[INFO] Parameter: version, Value: 1.0.0-SNAPSHOT
[INFO] Parameter: package, Value: org.openmrs.module.basicexample
[INFO] Parameter: openmrsPlatformVersion, Value: 1.11.6
[INFO] Parameter: artifactId, Value: basicexample
[INFO] Parent element not overwritten in C:\Users\szpec\basicexample\api\pom.xml
[INFO] Parent element not overwritten in C:\Users\szpec\basicexample\omod\pom.xml
[INFO] project created from Archetype in dir: C:\Users\szpec\basicexample
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 12:27 min
[INFO] Finished at: 2020-12-06T16:26:08+01:00
[INFO] -----
C:\Users\szpec>
```

### 3. Rozwijanie projektu na serwerze:

```
Wiersz polecenia - mvn openmrs-sdk:deploy -DserverId=webservices-dev
C:\Users\szpec>mvn openmrs-sdk:deploy -DserverId=webservices-dev
[INFO] Scanning for projects...
[INFO] -----< org.apache.maven:standalone-pom >-----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----[ pom ]-----
[INFO] --- openmrs-sdk-maven-plugin:3.13.6:deploy (default-cli) @ standalone-pom ---

What would you like to deploy?:
1) Module
2) Open Web App
3) Distribution
4) Platform

Which one do you choose? [1/2/3/4]: 1

Please specify groupId (default: 'org.openmrs.module'):
```

```
Wiersz polecenia - mvn openmrs-sdk:deploy -DserverId=webservices-dev
[INFO] -----< org.apache.maven:standalone-pom >-----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----[ pom ]-----
[INFO] --- openmrs-sdk-maven-plugin:3.13.6:deploy (default-cli) @ standalone-pom ---

What would you like to deploy?:
1) Module
2) Open Web App
3) Distribution
4) Platform

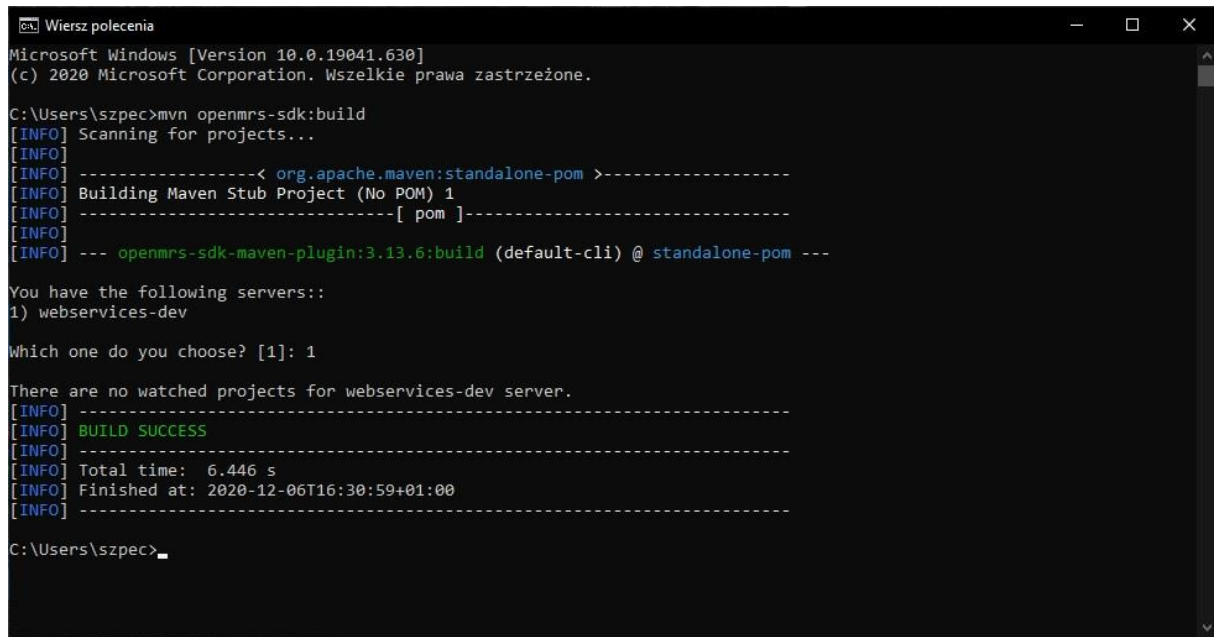
Which one do you choose? [1/2/3/4]: 3

The server currently has the OpenMRS webservices-dev in version 1.0 installed.
[INFO] artifact org.openmrs.distro:referenceapplication-package: checking for updates from openmrs-repo
[INFO] artifact org.openmrs.distro:referenceapplication-package: checking for updates from openmrs-repo-thirdparty
[INFO] artifact org.openmrs.distro:referenceapplication-package: checking for updates from openmrs-bintray-repo
[INFO] artifact org.openmrs.distro:referenceapplication-package: checking for updates from central

You can deploy the following versions of distribution:
1) Reference Application 2.12.0-SNAPSHOT
2) Reference Application 2.11.0
3) Reference Application 2.10.0
4) Reference Application 2.9.0
5) Reference Application 2.8.1
6) Other...

Which one do you choose? [1/2/3/4/5/6]:
```

## 4. Budowanie projektów:



```
Wiersz polecenia
Microsoft Windows [Version 10.0.19041.630]
(c) 2020 Microsoft Corporation. Wszelkie prawa zastrzeżone.

C:\Users\szpec>mvn openmrs-sdk:build
[INFO] Scanning for projects...
[INFO]
[INFO] -----< org.apache.maven:standalone-pom >-----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----[ pom ]-----
[INFO]
[INFO] --- openmrs-sdk-maven-plugin:3.13.6:build (default-cli) @ standalone-pom ---

You have the following servers::
1) webservices-dev

Which one do you choose? [1]: 1

There are no watched projects for webservices-dev server.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 6.446 s
[INFO] Finished at: 2020-12-06T16:30:59+01:00
[INFO] -----

C:\Users\szpec>
```