Task 1

pom.xml

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| <**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**>ua.pidhurska.lesson.maven</**groupId**>  <**artifactId**>simple-app</**artifactId**>  <**packaging**>jar</**packaging**>  <**version**>1.0-SNAPSHOT</**version**>  <**name**>simple-app</**name**>  <**url**>http://maven.apache.org</**url**>  <**dependencies**>  <**dependency**>  <**groupId**>junit</**groupId**>  <**artifactId**>junit</**artifactId**>  <**version**>3.8.1</**version**>  <**scope**>test</**scope**>  </**dependency**>  </**dependencies**>  <**build**>  <**plugins**>  <**plugin**>  <**groupId**>org.codehaus.mojo</**groupId**>  <**artifactId**>exec-maven-plugin</**artifactId**>  <**version**>1.4.0</**version**>   <**configuration**>  <**mainClass**>ua.pidhurska.lesson.maven.App</**mainClass**>   </**configuration**>  </**plugin**>  </**plugins**>  </**build**> </**project**> |

**1.1. Write command examples for maven to run project:**

mvn exec:java -Dexec.mainClass="ua.pidhurska.lesson.maven.App"

**1.2. Main class should work with parameters. Write command examples for maven to run project.**

mvn exec:java -Dexec.args="argument1"

1.3. Create build profile that will turn on exec plugin.

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| <**profile**>  <**id**>testExec</**id**>  <**build**>  <**plugins**>  <**plugin**>  <**groupId**>org.codehaus.mojo</**groupId**>  <**artifactId**>exec-maven-plugin</**artifactId**>  <**version**>1.4.0</**version**>  <**executions**>  <**execution**>  <**phase**>install</**phase**>  <**goals**>  <**goal**>java</**goal**>  </**goals**>  <**configuration**>  <**mainClass**>${mainCL}</**mainClass**>  <**arguments**>  <**argument**>arg1</**argument**>  <**argument**>arg2</**argument**>  </**arguments**>  </**configuration**>  </**execution**>  </**executions**>  </**plugin**>  </**plugins**>  </**build**>  </**profile**> |

2. Create project with 2 types of test - ITest and simple test.

Configure maven to run build without ITests.

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| --- |
| <**properties**>  <**ITest**>\*\*/\*ITest.java</**ITest**></**properties**>  <**build**>  <**plugins**>  <**plugin**>  <**groupId**>org.apache.maven.plugins</**groupId**>  <**artifactId**>maven-surefire-plugin</**artifactId**>  <**version**>2.18</**version**>  <**configuration**>  <**excludes**>  <**exclude**>${ITest}</**exclude**>  </**excludes**>  </**configuration**>  </**plugin**> |

Create profile to run build with ITests,

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| <**properties**>  <**allTestsMask**>\*\*/\*Test.java</**allTestsMask**></**properties**>  <**profile**>  <**id**>runAllTests</**id**>  <**activation**>  <**activeByDefault**>true</**activeByDefault**>  </**activation**>  <**build**>  <**plugins**>  <**plugin**>  <**groupId**>org.apache.maven.plugins</**groupId**>  <**artifactId**>maven-surefire-plugin</**artifactId**>  <**version**>2.18</**version**>  <**executions**>  <**execution**>  <**phase**>test</**phase**>  <**goals**>  <**goal**>test</**goal**>  </**goals**>  <**configuration**>  <**excludes**>  <**exclude**>none</**exclude**>  </**excludes**>  <**includes**>  <**include**>${allTestsMask}</**include**>  </**includes**>  </**configuration**>  </**execution**>  </**executions**>  </**plugin**>   </**plugins**>  </**build**> </**profile**> |

Create profile to run build only ITests.

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| --- |
| <**properties**>  <**ITest**>\*\*/\*ITest.java</**ITest**></**properties**>  <**profile**>  <**id**>ITestProf</**id**>  <**activation**>  <**activeByDefault**>true</**activeByDefault**>  </**activation**>  <**build**>  <**plugins**>  <**plugin**>  <**groupId**>org.apache.maven.plugins</**groupId**>  <**artifactId**>maven-surefire-plugin</**artifactId**>  <**version**>2.18</**version**>  <**executions**>  <**execution**>  <**phase**>test</**phase**>  <**goals**>  <**goal**>test</**goal**>  </**goals**>  <**configuration**>  <**excludes**>  <**exclude**>none</**exclude**>  </**excludes**>  <**includes**>  <**include**>${ITest}</**include**>  </**includes**>  </**configuration**>  </**execution**>  </**executions**>  </**plugin**>   </**plugins**>  </**build**> </**profile**> |

Щоб запустити профайли

mvn –P profileName

1. Create project with sql data. Use Flyway\* or liquibase plugin to populate dbdata

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| pom.xml  <**plugin**>  <**groupId**>org.liquibase</**groupId**>  <**artifactId**>liquibase-maven-plugin</**artifactId**>  <**version**>${liquibase.version}</**version**>  <**configuration**>  <**changeLogFile**>${liquibase.createtables}</**changeLogFile**>  <**driver**>com.mysql.jdbc.Driver</**driver**>  <**propertyFileWillOverride**>true</**propertyFileWillOverride**>  <**propertyFile**>src/main/resources/liquibase.properties</**propertyFile**>  </**configuration**>  </**plugin**> |
| **liquibase.properties**  **driver**: **org.mariadb.jdbc.Driver classpath**: **C:/Users/Tetiana/.m2/repository/org/mariadb/jdbc/mariadb-java-client/1.4.6/mariadb-java-client-1.4.6.jar;C:/Users/Tetiana/.m2/repository/org/yaml/snakeyaml/1.13/snakeyaml-1.13.jar  url**: **jdbc:mariadb://localhost:3306/university username**: **shop password**: **qwerty changeLogFile**: **C:/Users/Tetiana/IdeaProjects/MavenProject/simple-app/src/main/resources/db-migration/master1.xml** |

Команда:

java -cp /.m2/repository/org/yaml/snakeyaml/1.16/snakeyaml-1.16.jar -jar /.m2/repository/org/liquibase/liquibase-core/3.3.0/liquibase-core-3.3.0.jar generateChangeLog --diffTypes="data"

Рез-т:

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| *master1.xml*  *<?***xml version="1.1" encoding="UTF-8" standalone="no"***?>* <**databaseChangeLog xmlns="http://www.liquibase.org/xml/ns/dbchangelog" xmlns:ext="http://www.liquibase.org/xml/ns/dbchangelog-ext" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.liquibase.org/xml/ns/dbchangelog-ext http://www.liquibase.org/xml/ns/dbchangelog/dbchangelog-ext.xsd http://www.liquibase.org/xml/ns/dbchangelog http://www.liquibase.org/xml/ns/dbchangelog/dbchangelog-3.5.xsd"**>  <**changeSet author="Tetiana (generated)" id="1475930563011-1" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createTable tableName="classes\_types"**>  <**column autoIncrement="true" name="ct\_id" type="INT"**>  <**constraints primaryKey="true"**/>  </**column**>  <**column name="ct\_name" type="VARCHAR(255)"**>  <**constraints nullable="false"**/>  </**column**>  </**createTable**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-2" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createTable tableName="education"**>  <**column autoIncrement="true" name="ed\_id" type="INT"**>  <**constraints primaryKey="true"**/>  </**column**>  <**column name="ed\_student" type="INT"**>  <**constraints nullable="false"**/>  </**column**>  <**column name="ed\_tutor" type="INT"**>  <**constraints nullable="false"**/>  </**column**>  <**column name="ed\_subject" type="INT"**>  <**constraints nullable="false"**/>  </**column**>  <**column name="ed\_class\_type" type="INT"**>  <**constraints nullable="false"**/>  </**column**>  <**column name="ed\_mark" type="INT"**/>  <**column name="ed\_date" type="datetime(6)"**>  <**constraints nullable="false"**/>  </**column**>  </**createTable**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-3" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createTable tableName="students"**>  <**column autoIncrement="true" name="st\_id" type="INT"**>  <**constraints primaryKey="true"**/>  </**column**>  <**column name="st\_name" type="VARCHAR(255)"**>  <**constraints nullable="false"**/>  </**column**>  </**createTable**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-4" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createTable tableName="subjects"**>  <**column autoIncrement="true" name="sb\_id" type="INT"**>  <**constraints primaryKey="true"**/>  </**column**>  <**column name="sb\_name" type="VARCHAR(255)"**>  <**constraints nullable="false"**/>  </**column**>  </**createTable**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-5" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createTable tableName="tutors"**>  <**column autoIncrement="true" name="tt\_id" type="INT"**>  <**constraints primaryKey="true"**/>  </**column**>  <**column name="tt\_name" type="VARCHAR(255)"**>  <**constraints nullable="false"**/>  </**column**>  </**createTable**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-6" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createIndex indexName="ed\_class\_type" tableName="education"**>  <**column name="ed\_class\_type"**/>  </**createIndex**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-7" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createIndex indexName="ed\_student" tableName="education"**>  <**column name="ed\_student"**/>  </**createIndex**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-8" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createIndex indexName="ed\_subject" tableName="education"**>  <**column name="ed\_subject"**/>  </**createIndex**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-9" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**createIndex indexName="ed\_tutor" tableName="education"**>  <**column name="ed\_tutor"**/>  </**createIndex**>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-10" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**addForeignKeyConstraint baseColumnNames="ed\_tutor" baseTableName="education" constraintName="education\_ibfk\_1" deferrable="true" initiallyDeferred="false" onDelete="CASCADE" onUpdate="CASCADE" referencedColumnNames="tt\_id" referencedTableName="tutors"**/>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-11" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**addForeignKeyConstraint baseColumnNames="ed\_student" baseTableName="education" constraintName="education\_ibfk\_2" deferrable="true" initiallyDeferred="false" onDelete="CASCADE" onUpdate="CASCADE" referencedColumnNames="st\_id" referencedTableName="students"**/>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-12" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**addForeignKeyConstraint baseColumnNames="ed\_subject" baseTableName="education" constraintName="education\_ibfk\_3" deferrable="true" initiallyDeferred="false" onDelete="CASCADE" onUpdate="CASCADE" referencedColumnNames="sb\_id" referencedTableName="subjects"**/>  </**changeSet**>  <**changeSet author="Tetiana (generated)" id="1475930563011-13" objectQuotingStrategy="QUOTE\_ALL\_OBJECTS"**>  <**addForeignKeyConstraint baseColumnNames="ed\_class\_type" baseTableName="education" constraintName="education\_ibfk\_4" deferrable="true" initiallyDeferred="false" onDelete="CASCADE" onUpdate="CASCADE" referencedColumnNames="ct\_id" referencedTableName="classes\_types"**/>  </**changeSet**> </**databaseChangeLog**> |