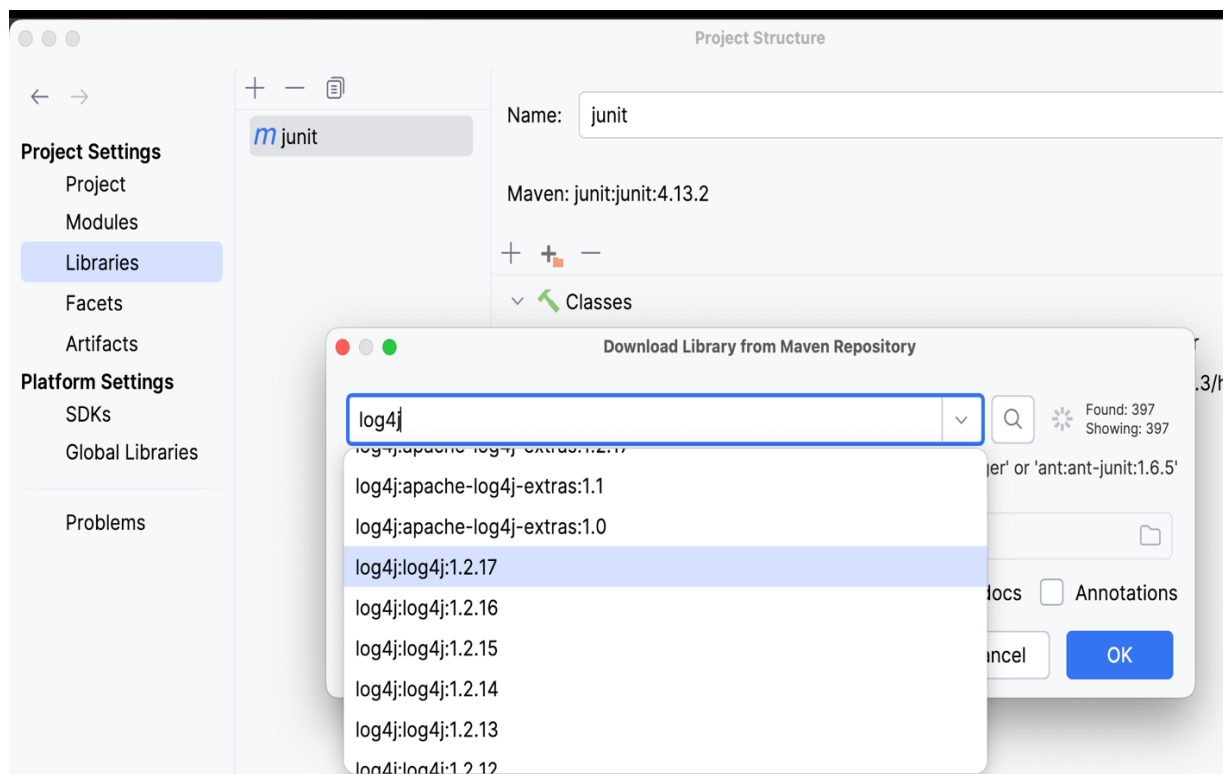**<u>Lesson-12-How to Perform Logging in IntelliJ IDE Step by Step Instructions.</u>**

Refer Demo Project: UnderstandLog4j

Step 1: Create a new Project

Step 2: Add Log4j external libraries into your project

      a. Right click your project > Open Module Settings, select Libraries from Project settings.

      b. Click + > Library > From Maven....

      c. Search and add org.apache.logging.log4j:log4j-core:2.17.0
                  and org.apache.logging.log4j:log4j-api:2.17.0.
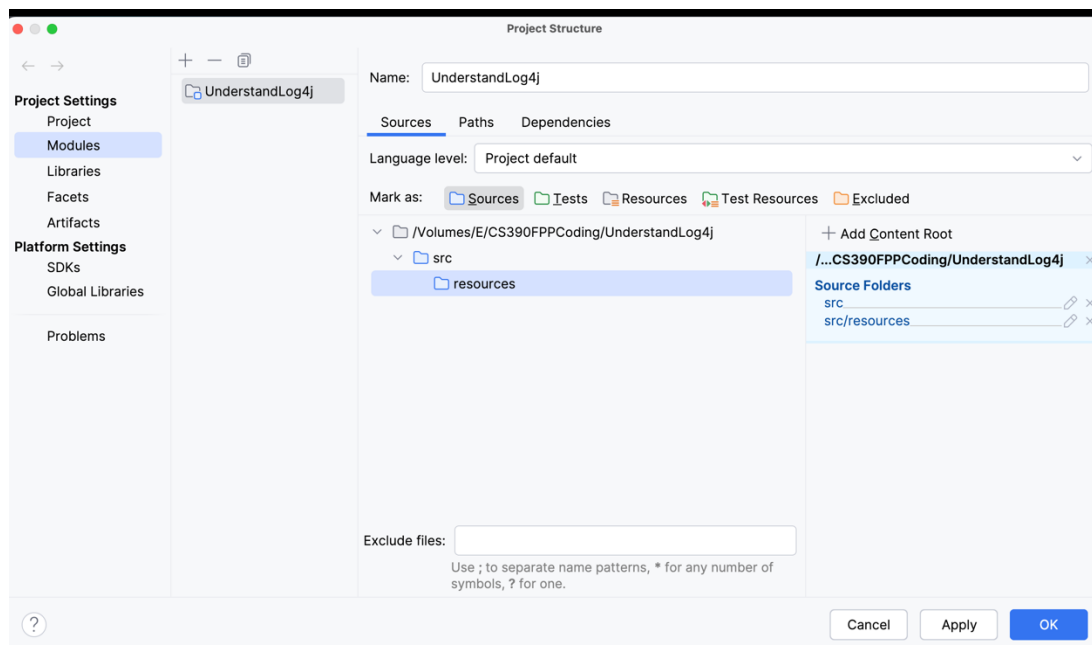
      d. Click Apply and OK

Step 3: Create a new resources package

      e. Right-click on the src directory.

      f. Select New > Package.

      g. Name the package as **resources**.

Step 4: Mark the Resources Package as a Resources Root

      a. Right click on your project > Open Module Settings and follow the screenshots as selected. Select resources folder and click the Sources to mark as Resources root.

Step 5: Create the Log4j2 Configuration File

    a) Right-click on the resources package.
    b) Select New > File.
    c) Name the file log4j2.xml
    d) Add the following configuration to log4j2.xml and save the file.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<Configuration status="WARN">
   <Appenders>
     <File name="FileLogger" fileName="logs/app.log" append="true">
       <PatternLayout>
         <Pattern>%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L - %m%n</Pattern>
       </PatternLayout>
     </File>
   </Appenders>
   <Loggers>
     <Root level="debug">
       <AppenderRef ref="FileLogger"/>
     </Root>
   </Loggers>
</Configuration>
```

Step 6: Create your Java class to store Logging.

Refer Triangle.java, IllegalTriangleException.java and TestLogger.

To get the Logger add the below line of code declare inside your class. Change it according your classname. I used TestLogger.class here.

private static final Logger *logger* = LogManager.*getLogger*(TestLogger.class);

You need the following imports,

import org.apache.logging.log4j.LogManager;
import org.apache.logging.log4j.Logger;

Step 7: Run your Java file with the main() method.

```java
public class TestLogger {
    private static final Logger logger = LogManager.getLogger(TestLogger.class);
    public static void main(String[] args) {
        logger.debug("This is a debug message");
        logger.info("This is an info message");
        logger.error("This is an error message");
    }
}
```

You can see the registered log messages in the app.log file created under logs folder as per the Log4j2 Configuration File.