

Absolutely, Sarvesh! Here's your **clean, step-by-step process** to complete **DevOps Lab Program 1**:

✅ *Build and Run a Java Application with Maven, Migrate the Same Application to Gradle.*

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## ✅ PART 1: Build and Run the Java App with Maven

### 📁 Project Structure

myapp/

├─ pom.xml

└─ src/

    ├─ main/

        ├─ java/

            └─ com/myproject/myapp/MyApp.java

        └─ resources/

            └─ config.properties

    └─ test/

        └─ java/

            └─ com/myproject/myapp/MyAppTest.java

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### 📄 Create MyApp.java

📄 src/main/java/com/myproject/myapp/MyApp.java:

```
package com.myproject.myapp;
```

```
import java.util.ResourceBundle;
```

```
public class MyApp {
```

```
    public int userlogin(String inuser, String inpwd) {
```

```
        ResourceBundle rb = ResourceBundle.getBundle("config");
```

```
        String username = rb.getString("username");
```

```
        String password = rb.getString("password");
```

```
        if (inuser.equals(username) && inpwd.equals(password))
```

```
            return 1;
```

```
        else
            return 0;
    }
}
```

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## Create MyAppTest.java

 src/test/java/com/myproject/myapp/MyAppTest.java:

```
package com.myproject.myapp;
```

```
import org.testng.Assert;
import org.testng.annotations.Test;
```


```
public class MyAppTest {

    @Test
    public void testlogin1() {
        MyApp myapp = new MyApp();
        Assert.assertEquals(0, myapp.userlogin("abc", "abc1234"));
    }

    @Test
    public void testlogin2() {
        MyApp myapp = new MyApp();
        Assert.assertEquals(1, myapp.userlogin("abc", "abc@1234"));
    }
}
```

---

## Create config.properties


 src/main/resources/config.properties:

```
username=abc
```

```
password=abc@1234
```

---

## 4 Create pom.xml

 pom.xml:

```
<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>com.myproject</groupId>
  <artifactId>myapp</artifactId>
  <version>1.0</version>
  <packaging>jar</packaging>

  <dependencies>
    <dependency>
      <groupId>org.testng</groupId>
      <artifactId>testng</artifactId>
      <version>7.5.1</version>
      <scope>test</scope>
    </dependency>
  </dependencies>
</project>
```

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## 5 Run with Maven

In project root (myapp/):

mvn test

 Expected: BUILD SUCCESSFUL and tests passed

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 **PART 2: Migrate the Maven Project to Gradle**

## 1 Create build.gradle

 build.gradle:

```
plugins {  
    id 'java'  
}  
  
group = 'com.myproject'  
version = '1.0'  
  
repositories {  
    mavenCentral()  
}  
  
dependencies {  
    testImplementation 'org.testng:testng:7.5.1'  
}  
  
test {  
    useTestNG()  
}
```

### **gradle test**



 Output:

BUILD SUCCESSFUL

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 **Done!**

You have now:

- Built and tested the Java app using Maven 
  - Migrated it to Gradle and tested it again 
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Let me know if you'd like a ZIP of the complete project folder for reference or submission!