# Install Gradle

(If you are ok with gradlew.bat, skip this step)

## Step 1. Download the latest Gradle distribution

## Step 2. Unpack the distribution

Create a new directory `C:\Gradle` with File Explorer.

Open a second File Explorer window and go to the directory where the Gradle distribution was downloaded. Double-click the ZIP archive to expose the content. Drag the content folder `gradle-6.5` to your newly created `C:\Gradle` folder.

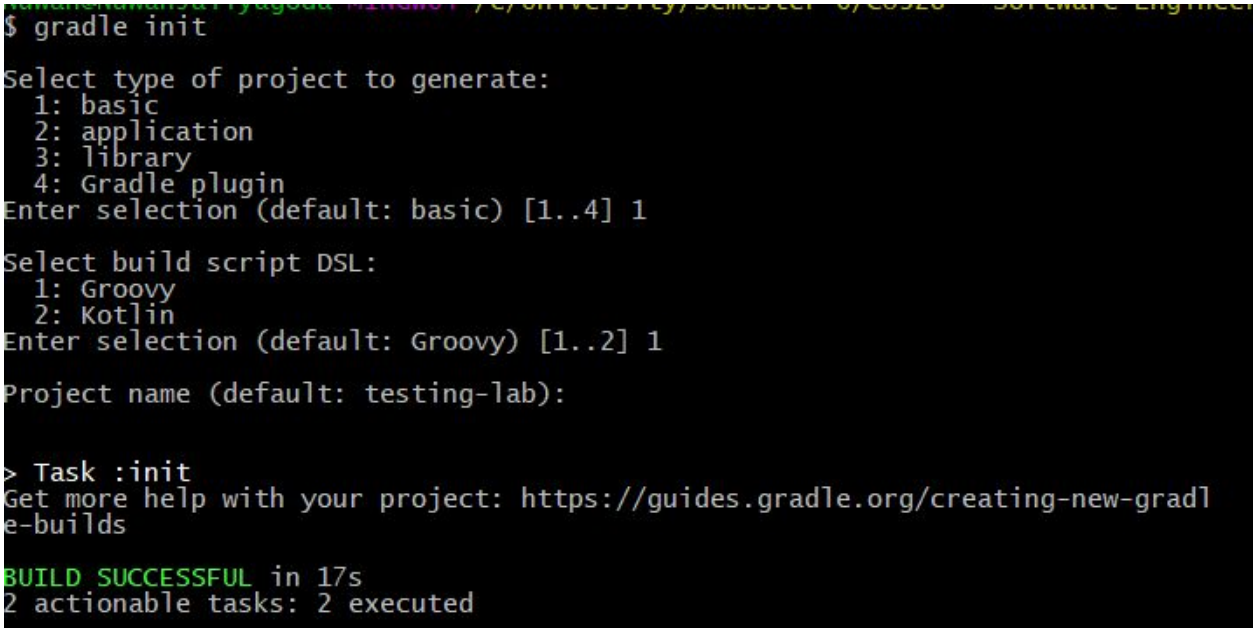
## Step 3. Configure your system environment

In File Explorer right-click on the `This PC` (or `Computer`) icon, then click `Properties` → `Advanced System Settings` → `Environmental Variables`.

Under `System Variables` select `Path`, then click `Edit`. Add an entry for `C:\Gradle\gradle-6.5\bin`. Click OK to save.

# Initialize Gradle on your project

Open the terminal in the project root directory and run the following command and follow the instructions.




Next, open the ‘build.gradle’ file and add the following dependencies.

```
apply plugin: 'java'

repositories {
        mavenCentral()
}

dependencies {
        testImplementation('org.junit.jupiter:junit-jupiter-api:5.4.2')
        testRuntime('org.junit.jupiter:junit-jupiter-engine:5.4.2')
}

test {
        useJUnitPlatform()
        testLogging {
          events "failed"
          exceptionFormat "full"
        }
}
```

Now you can create JUnit Test classes on **src\test\java** directory.

Working Example:

**src\test\java\ex1\HistoricalDataTest.java**

```
package ex1;

import static org.junit.jupiter.api.Assertions.assertEquals;
import static org.junit.jupiter.api.Assertions.assertThrows;

import java.lang.Exception;
import java.lang.reflect.Field;
import org.junit.jupiter.api.Test;

class HistoricalDataTest {

  @Test
  void addValueTest() {
    HistoricalData hd = new HistoricalData(0.0, 0.0, 0);
    hd.add(10);
    assertEquals(10, hd.max(), "after add 10 to 0, max should be 10");
  }

  @Test
  public void divideByZeroException() {
    HistoricalData hd = new HistoricalData(0.0, 0.0, 0);
    Exception exception = assertThrows(ArithmeticException.class, () -> hd.average());
    assertEquals("/ by zero", exception.getMessage());
  }

}
```

References:

https://junit.org/junit5/docs/current/user-guide/