Creating Gradle Project

This lesson gives a brief introduction to Gradle. It is more like a guide to set a Gradle project on our system, depending on its requirements.

WE'LL COVER THE FOLLOWING

What is Gradle?

Gradle is an open-source build management system that allows you to build any software. It caches dependencies locally and downloads them in parallel.

Install Gradle

Gradle needs Java JDK or JRE version 8 or higher to be installed as a prerequisite.

The current latest version of Gradle can be downloaded from here.

To install Gradle on Linux or Windows, follow the user guide.

For installation on Mac via command line, you can use the below `brew` command:

```
## install gradle using brew on MAC
brew install gradle

## install gradle on linux
sudo apt-get install gradle -y
```

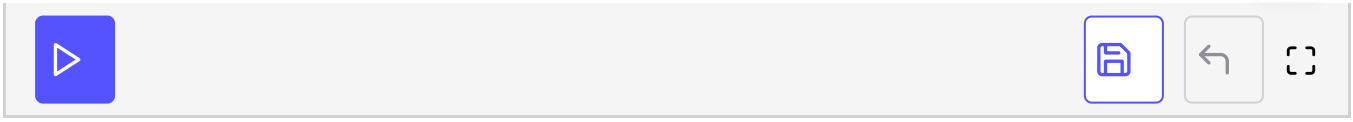
```
## check the gradle installation
gradle -v
```

Create a Java project using Gradle

Once Gradle is successfully installed, please follow the steps for creating a java TestNG project via Gradle command line:

- Create an empty folder
- Run command:

```
gradle init
```

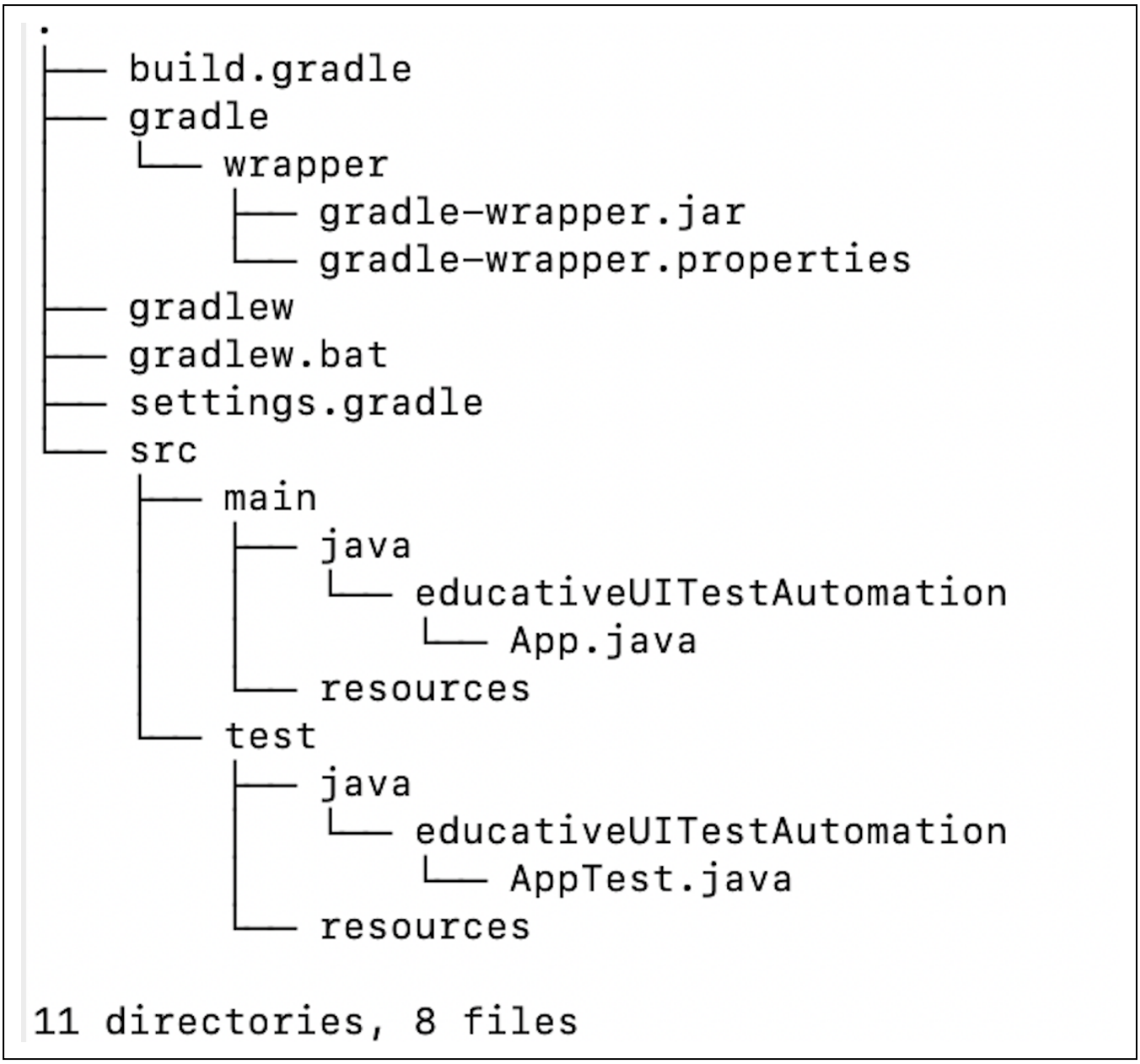


#

From the options on the CLI.

- Select type of project to generate → application [Option no. 2]
- Select implementation language → java [Option no. 3]
- Select build script DSL → Groovy [Option no. 1]
- Select test frameworks → TestNG [Option no. 2]
- Select project name →
- Source package: Default

It will create a folder structure as shown below:



Compile and Build Gradle project

To build the project, run the build task. You can use the regular Gradle command, but when a project includes a wrapper script, it is considered good form to use it instead.

Run the below command from the base folder, containing **build.gradle** file.

```
./gradlew build
```

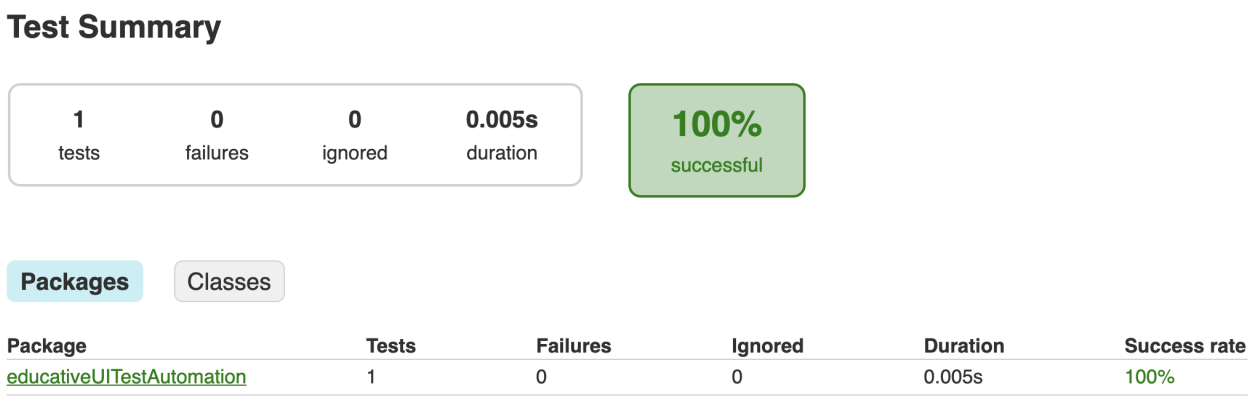
Gradle report

The first time you run the build, Gradle will check whether or not you already have the required libraries in your cache under your `~/.gradle` directory. If not, the libraries will be downloaded and stored there. The next time you run

the build, the cached versions will be used. The build task compiles the classes, runs the tests, and generates a test report.

The HTML report file will be located at `${project.dir}/build/reports/tests/test/index.html`.

A sample report is shown below:



To learn more about Gradle follow this link.

Now, you have a deep insight into building the management for a framework. In the next section, you'll learn how to configure a framework and customize it according to your needs.