



3. GRADLE

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ENTORNOS DE DESARROLLO

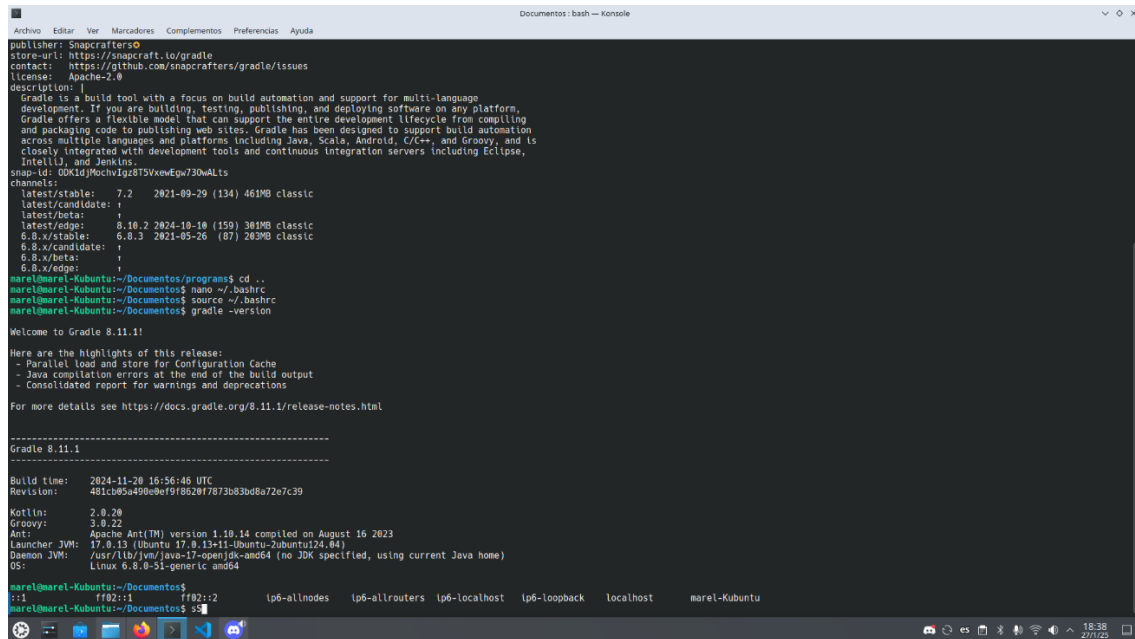
1 instalación Gradle 8.11.1 con JDK V17

Añadiendo en el archivo `~/.bashrc` el siguiente código:

```
# Gradle
if [ -d $HOME/programs/gradle-8.11.1/bin ]; then
    PATH=$HOME/programs/gradle-8.11.1/bin:$PATH
fi
```

y desde HOME ejecutamos el comando `source ~/.bashrc`

ponemos `gradle --version` para comprobar que ha sido correctamente instalado



```
Documents: bash — Konsole

publisher: Snapcrafters
store-url: https://snapcraft.io/gradle
contact: https://github.com/snapcrafters/gradle/issues
license: Apache-2.0
description:
  Gradle is a build tool with a focus on build automation and support for multi-language
  development. If you are building, testing, publishing, and deploying software on any platform,
  Gradle offers a flexible model that can support the entire development lifecycle from compiling
  and packaging code to publishing web sites. Gradle has been designed to support build automation
  across multiple languages and platforms including Java, Scala, Android, C/C++, and Groovy, and is
  closely integrated with development tools and continuous integration servers including Eclipse,
  IntelliJ, and Jenkins.
snap-id: 00K1dJMochvIq28T5VxwEgw730wALts
channels:
  latest/stable: 7.2 2021-09-29 (134) 461MB classic
  latest/candidate:
  latest/beta:
  latest/edge:
  6.8.x/stable: 6.8.2 2024-10-10 (159) 301MB classic
  6.8.x/candidate:
  6.8.x/beta:
  6.8.x/edge:
marel@marel-Kubuntu:~/Documents/programs$ cd ..
marel@marel-Kubuntu:~/Documents$ nano ~/.bashrc
marel@marel-Kubuntu:~/Documents$ source ~/.bashrc
marel@marel-Kubuntu:~/Documents$ gradle --version

Welcome to Gradle 8.11.1!

Here are the highlights of this release:
- Parallel load and store for Configuration Cache
- Java compilation errors at the end of the build output
- Consolidated report for warnings and deprecations

For more details see https://docs.gradle.org/8.11.1/release-notes.html

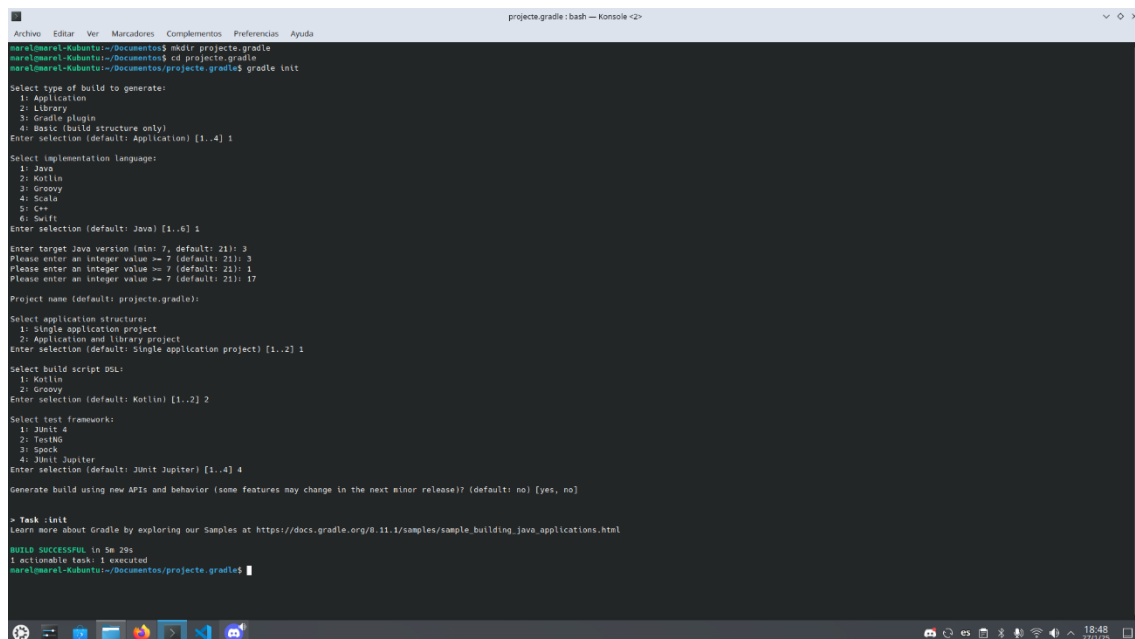
-----
Gradle 8.11.1
-----

Build time: 2024-11-20 16:56:46 UTC
Revision: 481cb05a490e0ef9f8028f7873b83bd8a72e7c39

Kotlin: 2.0.20
Groovy: 3.0.22
Ant: Apache Ant(TM) version 1.10.14 compiled on August 16 2023
Launcher JVM: 17.0.13 (Ubuntu 17.0.13-11~11~1ubuntu24.04)
Daemon JVM: /usr/lib/jvm/java-17-openjdk-amd64 (no JDK specified, using current Java home)
OS: Linux 6.8.0-51-generic amd64

marel@marel-Kubuntu:~/Documents$
::1 f802::1 f802::2 lp6-allnodes lp6-allrouters lp6-localhost lp6-loopback localhost marel-Kubuntu
marel@marel-Kubuntu:~/Documents$
```

2 Crear proyecto con `gradle init` desde la carpeta donde queramos crear el proyecto y lo configuramos con los parámetros que nos ofrece.



```
projecte gradle : bash — Konsole -x-

marel@marel-Kubuntu:~/Documents$ mkdir projecte-gradle
marel@marel-Kubuntu:~/Documents$ cd projecte-gradle
marel@marel-Kubuntu:~/Documents/projecte-gradle$ gradle init

Select type of build to generate:
 1: Application
 2: Library
 3: Gradle plugin
 4: Basic (Build structure only)
Enter selection (default: Application) [1..4] 1

Select implementation language:
 1: Java
 2: Kotlin
 3: Groovy
 4: Scala
 5: C++
 6: Swift
Enter selection (default: Java) [1..6] 1

Enter target Java version (min: 7, default: 21): 3
Please enter an integer value >= 7 (default: 21): 3
Please enter an integer value >= 7 (default: 21): 1
Please enter an integer value >= 7 (default: 21): 17

Project name (default: projecte-gradle):

Select application structure:
 1: Single application project
 2: Application and library project
Enter selection (default: Single application project) [1..2] 1

Select build script DSL:
 1: Kotlin
 2: Groovy
Enter selection (default: Kotlin) [1..2] 2

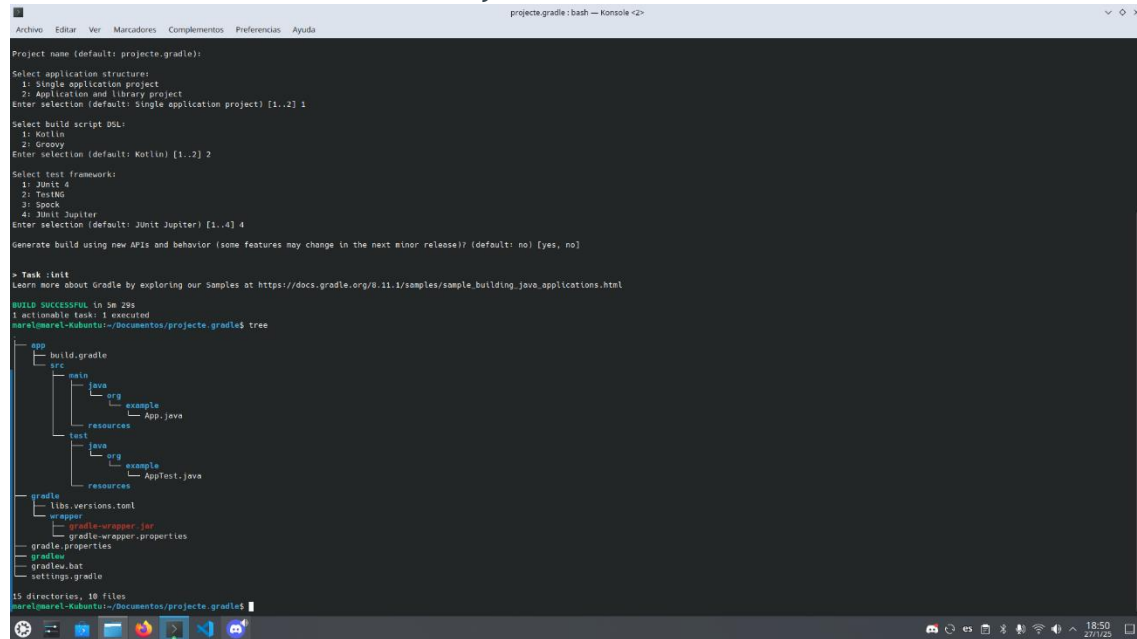
Select test framework:
 1: JUnit 4
 2: TestNG
 3: Spock
 4: JUnit Jupiter
Enter selection (default: JUnit Jupiter) [1..4] 4

Generate build using new APIs and behavior (some features may change in the next minor release)? (default: no) [yes, no]

> Task :init
Learn more about Gradle by exploring our Samples at https://docs.gradle.org/8.11.1/samples/sample_building_java_applications.html

BUILD SUCCESSFUL in 5s 29s
1 actionable task: 1 executed
marel@marel-Kubuntu:~/Documents/projecte-gradle$
```

3 Generación de la estructura, se ve con tree

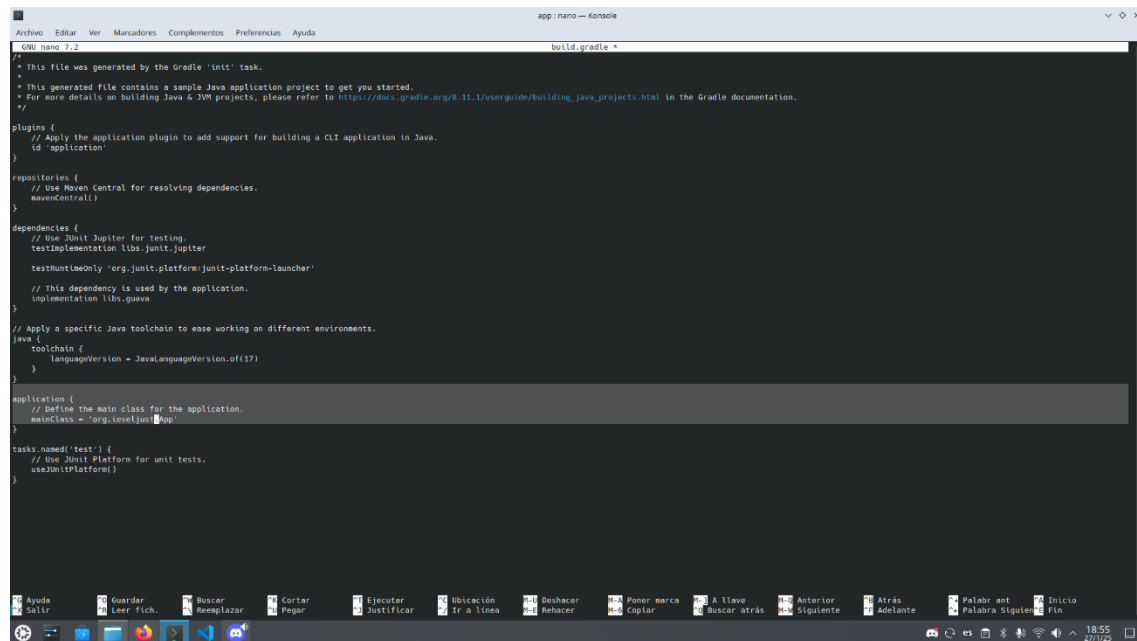


```
project:gradle: bash — Konsole [2]
Archivo  Editar  Ver  Marcadores  Complementos  Preferencias  Ayuda

Project name (default: project:gradle):
Select application structure:
1: Single application project
2: Application and library project
Enter selection (default: Single application project) [1..2] 1
Select build script DSL:
1: Kotlin
2: Groovy
Enter selection (default: Kotlin) [1..2] 2
Select test framework:
1: JUnit 4
2: TestNG
3: Spock
4: JUnit Jupiter
Enter selection (default: JUnit Jupiter) [1..4] 4
Generate build using new APIs and behavior (some features may change in the next minor release)? (default: no) [yes, no]

> Task :init
Learn more about Gradle by exploring our Samples at https://docs.gradle.org/8.11.1/samples/sample_building_java_applications.html
BUILD SUCCESSFUL in 5m 29s
1 actionable task: 1 executed
marel@mael-Kubuntu:~/Documentos/project:gradle$ tree
.
├── build.gradle
├── src
├── meta
│   ├── java
│   │   └── org
│   │       └── example
│   │           └── App.java
│   └── resources
├── test
│   ├── java
│   │   └── org
│   │       └── example
│   │           └── AppTest.java
│   └── resources
├── gradle
│   ├── libs.versions.toml
│   ├── wrapper
│   │   ├── gradle-wrapper.jar
│   │   └── gradle-wrapper.properties
│   ├── gradle.properties
│   ├── gradlew
│   ├── gradlew.bat
│   └── settings.gradle
└── 15 directories, 10 files
marel@mael-Kubuntu:~/Documentos/project:gradle$
```

4 Abrir el archivo “build.gradle” con nano build.gradle y comprobando que todo sea correcto o realizar modificaciones.



```
app:nano — Konsole
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GNU nano 7.2 build.gradle
/*
 * This file was generated by the Gradle 'init' task.
 *
 * This generated file contains a sample Java application project to get you started.
 * For more details on building Java & JVM projects, please refer to https://docs.gradle.org/8.11.1/userguide/building_java_projects.html in the Gradle documentation.
 */

plugins {
    // Apply the application plugin to add support for building a CLI application in Java.
    id 'application'
}

repositories {
    // Use Maven Central for resolving dependencies.
    mavenCentral()
}

dependencies {
    // Use JUnit Jupiter for testing.
    testImplementation libs.junit.jupiter

    testRuntimeOnly 'org.junit.platform:junit-platform-launcher'

    // This dependency is used by the application.
    implementation libs.guava
}

// Apply a specific Java toolchain to ease working on different environments.
java {
    toolchain {
        languageVersion = JavaLanguageVersion.of(17)
    }
}

application {
    // Define the main class for the application.
    mainClass = 'org.example.App'
}

tasks.named('test') {
    // Use JUnit Platform for unit tests.
    useJUnitPlatform()
}

Ayuda  Salir  Guardar  Leer fich...  Buscar  Reemplazar  Cortar  Pegar  Ejecutar  Justificar  Ubicación  Ir a línea  Deshacer  Rehacer  Poner marca  Copiar  A llinea  Buscar atrás  Anterior  Siguiente  Atras  Adelante  Palabr ant  Palabra Siguie...  Inicio  Fin
```

5 crear los directorios `com.ieseljust` y añadir en el archivo `app.java`:

```
package com.ieseljust;

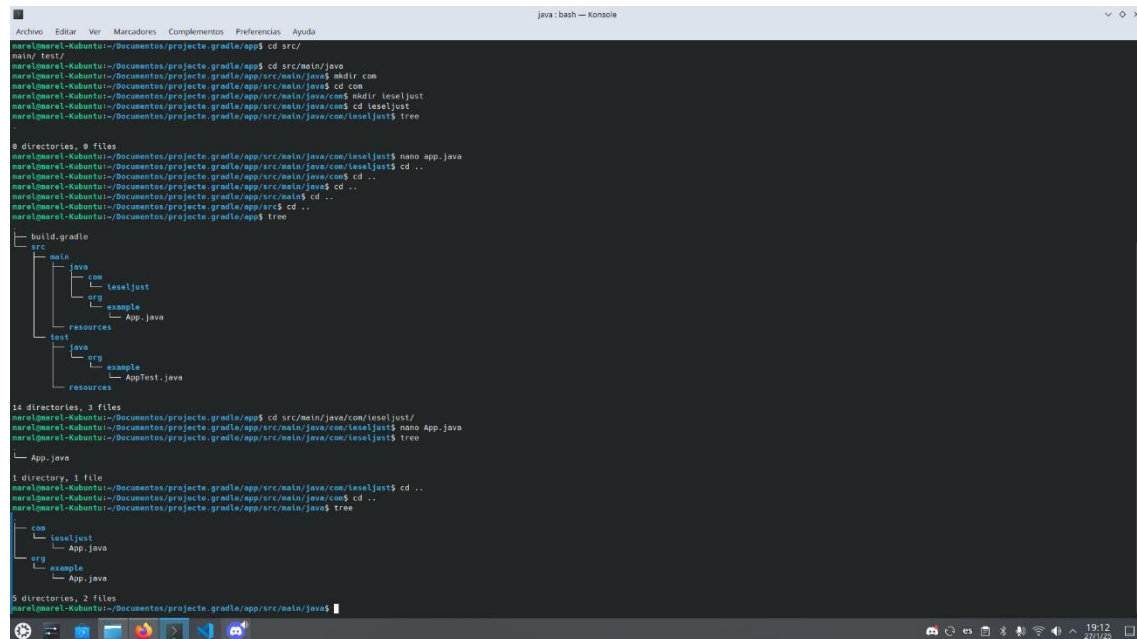
public class App {

    public static void main(String[] args) {

        System.out.println("Hola, món des de Gradle!");

    }

}
```



```
java: bash - Konsole
Archivo Editar Ver Marcadores Complementos Preferencias Ayuda
narel@narel-Kubuntu:~/Documents/projecte.gradle/app$ cd src/main/java
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java$ mkdir com
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java$ cd com
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com$ mkdir ieseljust
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com$ cd ieseljust
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ tree

0 directories, 0 files
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ nano app.java
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app$ tree

-- build.gradle
|-- src
|   |-- main
|   |   |-- com
|   |   |   |-- ieseljust
|   |   |   |   |-- App.java
|   |   |-- resources
|   |-- test
|   |   |-- java
|   |   |   |-- AppTest.java
|   |   |-- resources
--

14 directories, 3 files
narel@narel-Kubuntu:~/Documents/projecte.gradle/app$ cd src/main/java/com/ieseljust/
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ nano App.java
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ tree

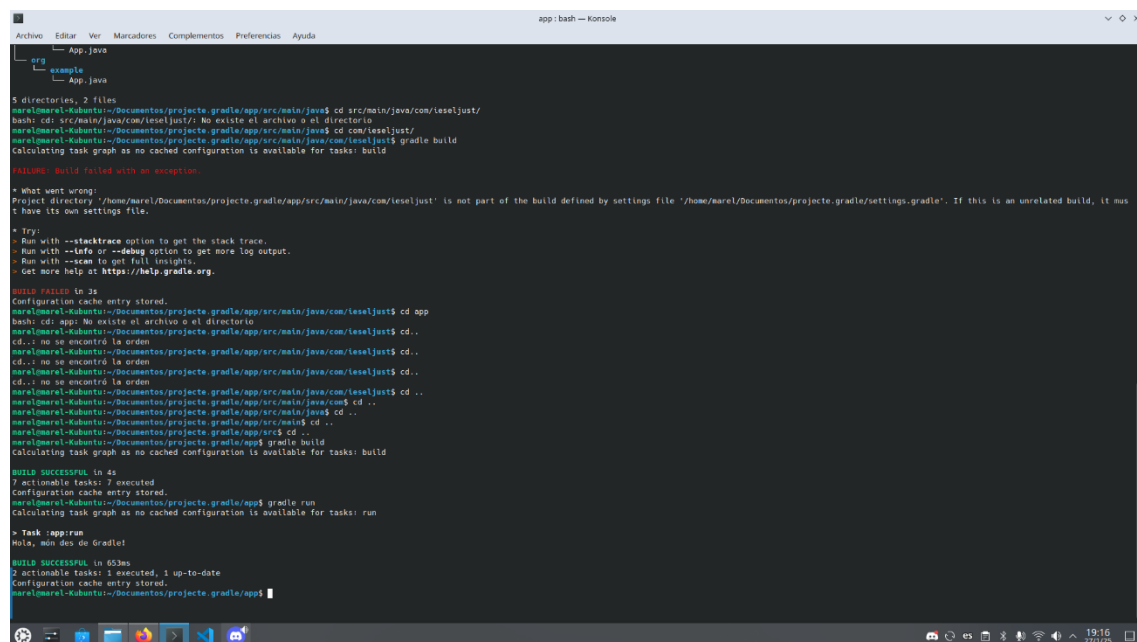
-- App.java
--

1 directory, 1 file
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java$ tree

-- com
|   |-- ieseljust
|   |   |-- App.java
|   |-- org
|   |   |-- example
|   |   |   |-- App.java
--

5 directories, 2 files
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java$
```

6 contrucción con `gradle build` y ejecución con `gradle run`



```
app: bash - Konsole
Archivo Editar Ver Marcadores Complementos Preferencias Ayuda
-- org
|   |-- example
|   |   |-- App.java
--

5 directories, 2 files
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java$ cd src/main/java/com/ieseljust/
bash: cd: src/main/java/com/ieseljust/: No existe el archivo o el directorio
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd com/ieseljust/
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ gradle build
Calculating task graph as no cached configuration is available for tasks: build

FAILURE: Build failed with an exception.

* What went wrong:
Project directory '/home/narel/Documents/projecte.gradle/app/src/main/java/com/ieseljust' is not part of the build defined by settings file '/home/narel/Documents/projecte.gradle/settings.gradle'. If this is an unrelated build, it must have its own settings file.

* Try:
  - Run with --stacktrace option to get the stack trace.
  - Run with --info or --debug option to get more log output.
  - Run with --scan to get full insights.
  - Get more help at https://help.gradle.org.

BUILD FAILED in 2s
Configuration cache entry stored.
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd app
bash: cd: app: No existe el archivo o el directorio
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd ..
cd:.. no se encontró la orden
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd ..
cd:.. no se encontró la orden
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd ..
cd:.. no se encontró la orden
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com/ieseljust$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main/java/com$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app/src/main$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app$ cd ..
narel@narel-Kubuntu:~/Documents/projecte.gradle/app$ gradle build
Calculating task graph as no cached configuration is available for tasks: build

BUILD SUCCESSFUL in 4s
7 actionable tasks: 7 executed
Configuration cache entry stored.
narel@narel-Kubuntu:~/Documents/projecte.gradle/app$ gradle run
Calculating task graph as no cached configuration is available for tasks: run

> Task: app:run
Hola, món des de Gradle!

BUILD SUCCESSFUL in 45ms
2 actionable tasks: 1 executed, 1 up-to-date
Configuration cache entry stored.
narel@narel-Kubuntu:~/Documents/projecte.gradle/app$
```