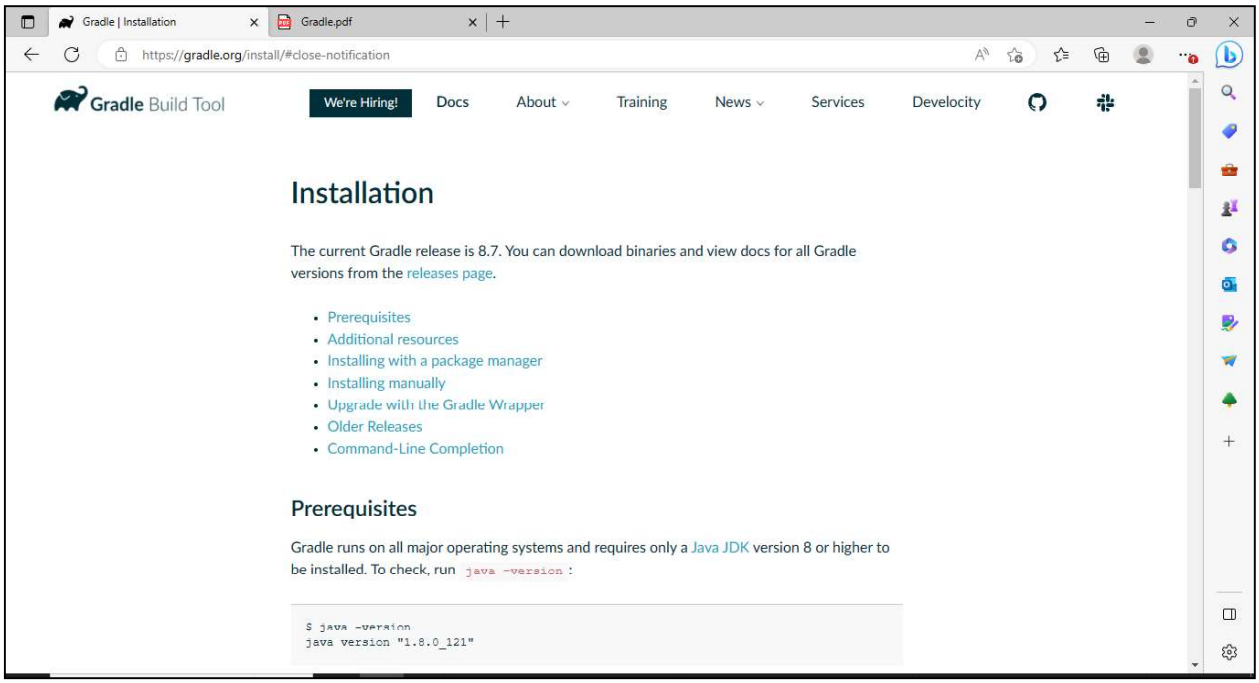
Ex: No: 6 **SIMPLE GRADLE APPLICATION**
DATE :

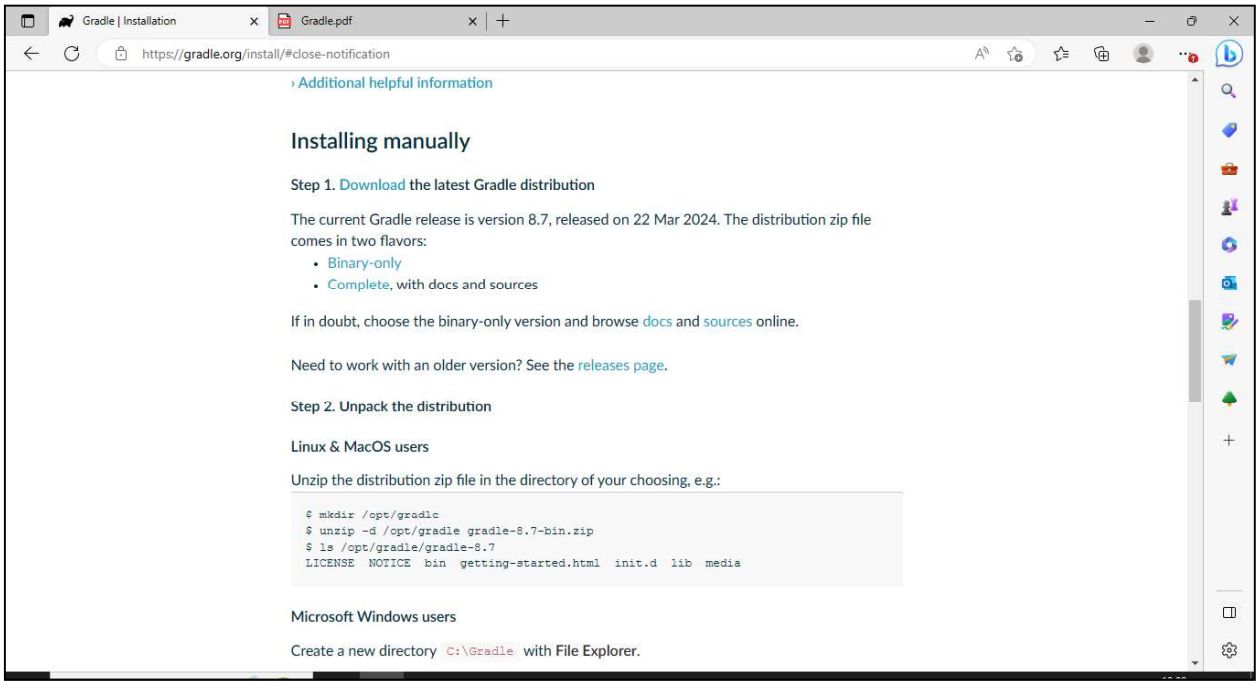
AIM:

To develop a simple application using Gradle.

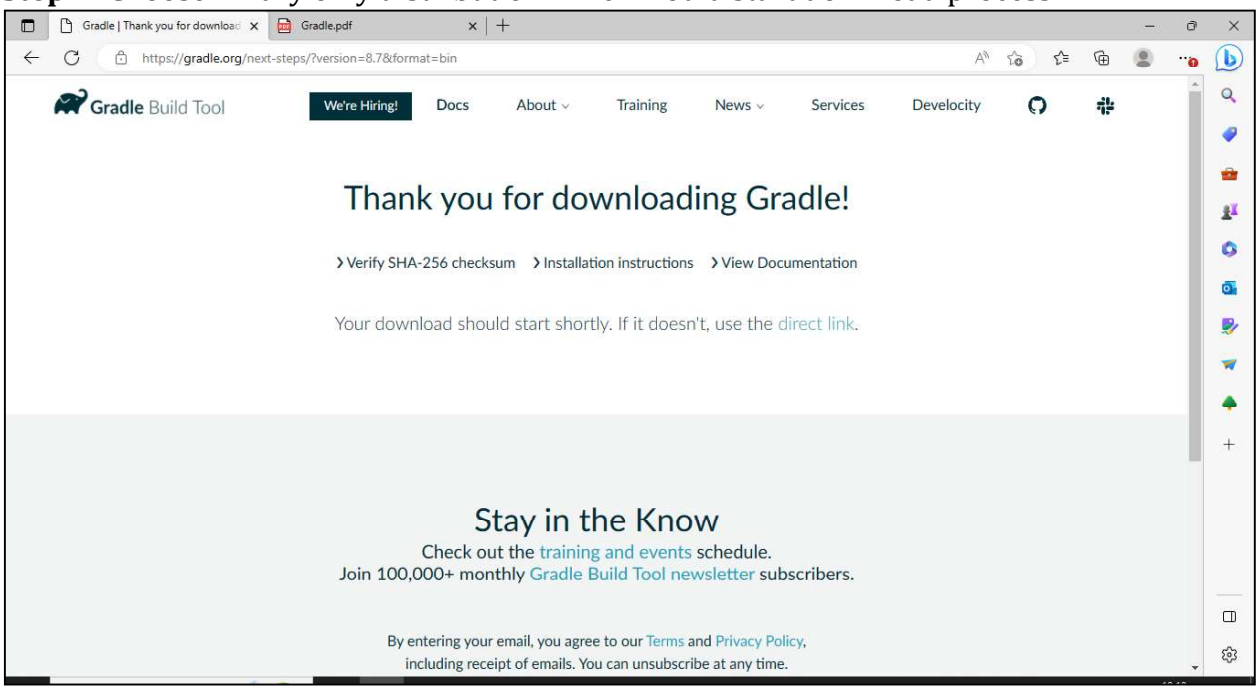
PROCEDURE:

Step 1: Download and install the latest Gradle distribution.

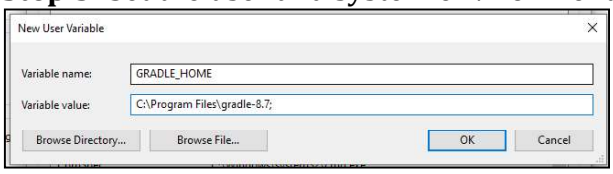


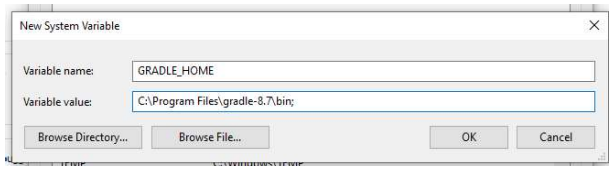


Step 2: Choose Binary only distribution which would start download process.



Step 3: Set the user and system environment variable as shown below.

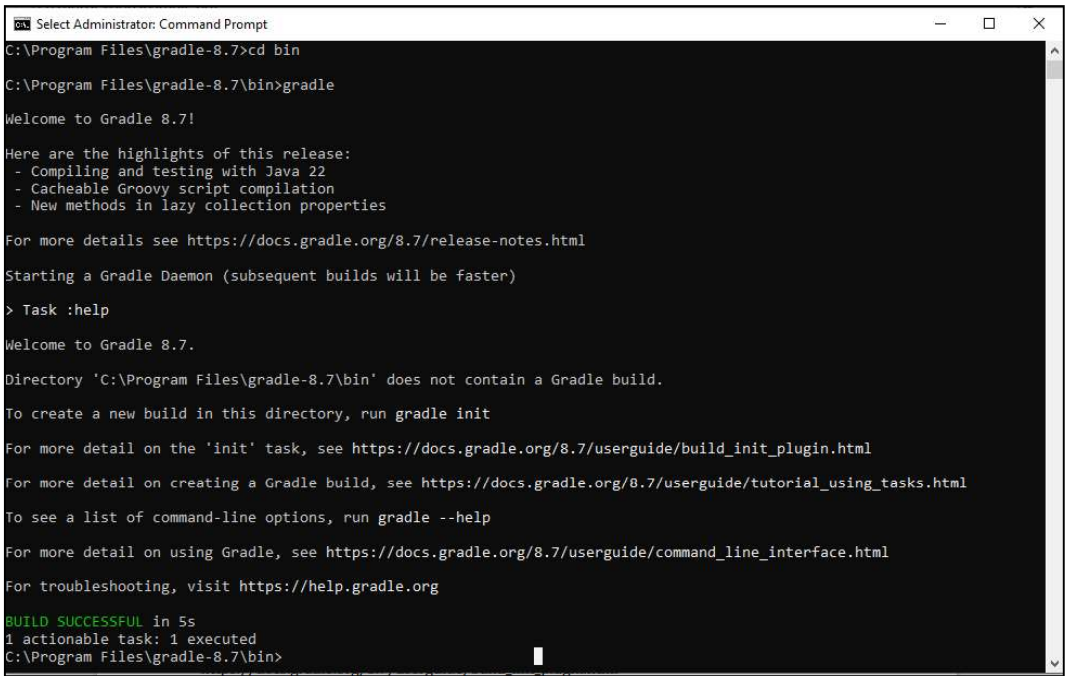




Step 4: Open the Command Prompt and change the path to where the gradle is located.

Step 5: Execute the commands as shown below.

C:\Program Files\gradle-8.7\bin> gradle – will display version and initialized for developing application.



C:\Program Files\gradle-8.7\bin>gradle -version

Gradle 8.7

Build time: 2024-03-22 15:52:46 UTC
Revision: 650af14d7653aa949fce5e886e685efc9cf97c10

Kotlin: 1.9.22
Groovy: 3.0.17
Ant: Apache Ant(TM) version 1.10.13 compiled on January 4 2023
JVM: 20.0.2 (Oracle Corporation 20.0.2+9-78)
OS: Windows 10 10.0 amd64

C:\Program Files\gradle-8.7\bin>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): 21

Project name (default: bin): javaappln
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] 1

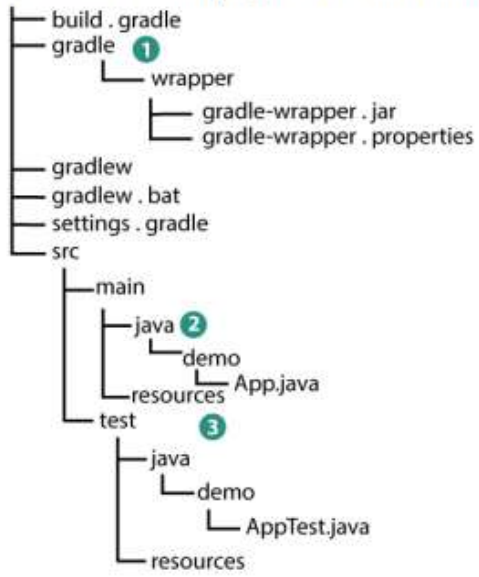
Select test framework:
  1: JUnit 4
  2: TestNG
  3: Spock
  4: JUnit Jupiter
Enter selection (default: JUnit Jupiter) [1..4] 1
Generate build using new APIs and behavior (some features may change in the next minor release)? (default: no) [yes, no] yes

Step7: Enter the project name; by default, it will take the directory name as the project name.

Step8: Enter the source package; by default, it will take the directory name as a source package.

Now the init task is successfully executed, and we have created a Java application using Gradle Init API.

It creates a Gradle project with the following structure:



1. A generated wrapper package that contains the wrapper files.
2. Default Java Source folder
3. Default Java test folder

To execute a gradle build, run the build task along with gradlew command.
C:\Program Files\gradle-8.7\bin\java_application>gradlew build
The build task compiles the classes, runs the tests, and creates the test reports.

First, use the task command to display the added tasks by the plugin:
C:\Program Files\gradle-8.7\bin\java_application>gradlew tasks

Now, run the application by using the run command.
C:\Program Files\gradle-8.7\bin\java_application>gradlew run

Output:(Command Prompt)
> Task : run
Hello world.
BUILD SUCCESSFUL in 3s.

RESULT:

Thus, the simple Java application is developed using Gradle.