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IMPLEMENTASI GRADLE



"Hello World" Gradle VS Code

> IMPLEMENTASI_GRADLE

"Hello World" Gradle VS Code (2)

"Hello World" Gradle VS Code(3)

C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -q helloworld hello, world

"Hello World" Gradle VS Code(4)

Gradle Command-line Options

```
C:\Windows\System32\cmd.exe
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -h
USAGE: gradle [option...] [task...]
 ·?, -h, --help
                                      Shows this help message.
-a, --no-rebuild
                                      Do not rebuild project dependencies.
-b, --build-file
                                      Specify the build file.
 -build-cache
                                      Enables the Gradle build cache. Gradle will t
 y to reuse outputs from previous builds.
                           Specify the settings file.
c, --settings-file
--configuration-cache
                                     Enables the configuration cache. Gradle will
try to reuse the build configuration from previous builds. [incubating]
 -configuration-cache-problems Configures how the configuration cache handle
  problems (fail or warn). Defaults to fail. [incubating]
--configure-on-demand Configure necessary projects only. Gradle wil
l attempt to reduce configuration time for large multi-project builds. [incubati
ng]
--console Specifies which type of console output to gen erate. Values are 'plain', 'auto' (default), 'rich' or 'verbose'.
                                      Continue task execution after a task failure.
 -continue
 D, --system-prop
                                      Set system property of the JVM (e.g. -Dmyprop
 myvalue).
```

Gradle Command-line Options (3)

```
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -q tasks --all

Tasks runnable from root project

Build Setup tasks

init - Initializes a new Gradle build.
wrapper - Generates Gradle wrapper files.

Help tasks

buildEnvironment - Displays all buildscript dependencies declared in root project 'implementasi_gradle'. components - Displays the components produced by root project 'implementasi_gradle'. [incubating] dependencies declared in root project 'implementasi_gradle'.

dependencyInsight - Displays all dependencies declared in root project 'implementasi_gradle'.

dependencyInsight - Displays all dependencies declared in root project 'implementasi_gradle'.

dependencyInsight - Displays the insight into a specific dependency in root project 'implementasi_gradle'.

dependentComponents - Displays the dependent components of components in root project 'implementasi_gradle'. [incubating]

help - Displays a help message.

model - Displays the configuration model of root project 'implementasi_gradle'. [incubating]

outgoingVariants - Displays the outgoing variants of root project 'implementasi_gradle'.

projects - Displays the sub-projects of root project 'implementasi_gradle'.

projects - Displays the properties of root project 'implementasi_gradle'.

tasks - Displays the tasks runnable from root project 'implementasi_gradle'.

Other tasks

hello

prepareKotlinBuildScriptModel

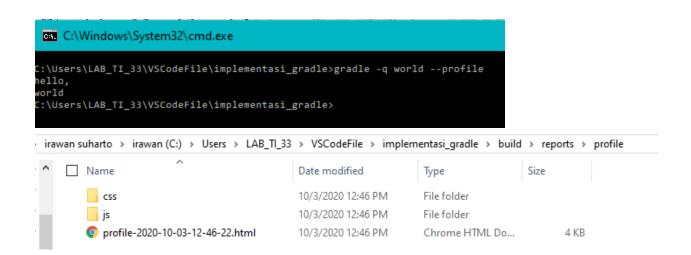
world

C:\Users\LAB_TI_33\VSCodefile\implementasi_gradle>
```

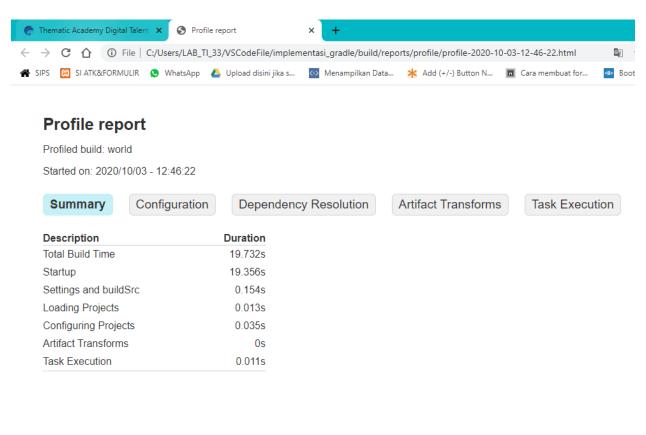
Gradle Command-line Options (4)

```
C:\Windows\System32\cmd.exe
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle help --task world
 Task :help
Detailed task information for world
Path
    :world
    Task (org.gradle.api.Task)
Description
Group
BUILD SUCCESSFUL in 19s
1 actionable task: 1 executed
:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle help --task hello
Detailed task information for hello
Path
     :hello
     Task (org.gradle.api.Task)
Description
Group
BUILD SUCCESSFUL in 19s
1 actionable task: 1 executed
 :\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>
```

Gradle Command-line Options (5)



Gradle Command-line Options (6)



Build Scripts & Groovy

```
💓 build.gradle 🗙
groovyTest > 2 build.gradle
       task upperCase {
           doLast {
               def someText = 'I am Gradle'
               println "Original: " + someText
               println "Upper case: " + someText.toUpperCase()
       task counting {
           doLast {
 11
               6.times{
                    print "$it "
 12
 13
               println ""
       3
```

C:\Windows\System32\cmd.exe

```
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\groovyTest>gradle -q upperCase
Driginal: I am Gradle
Upper case: I AM GRADLE
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\groovyTest>gradle -q counting
3 1 2 3 4 5
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\groovyTest>
```

Task Dependencies

```
C:\Windows\System32\cmd.exe

C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\groovyTest>gradle -q upperCase
0 1 2 3 4 5

Original: I am Gradle

Upper case: I AM GRADLE

C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\groovyTest>
```

Dynamic Task

```
EXPLORER
                           loopingTask > 🗬 build.gradle
> OPEN EDITORS
                                   9.times { index ->
V IMPLEMENTASI GRADLE
                                        task "task$index" {
  > .gradle
                                             doLast {
  > build \ reports \ profile
                                                  println "Task nomor-$index"
  > groovyTest

∨ loopingTask

                                   3
  w build.gradle
 build.gradle
C:\Windows\System32\cmd.exe
:\Users\LAB_TI_33\V5CodeFile\implementasi_gradle\loopingTask>gradle -q task1
Task nomor-1
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>gradle -q task2
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>gradle -q task8
```

:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>

Task Manipulation

```
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>gradle -q task0
Task nomor-2
Task nomor-4
Task nomor-6
Task nomor-8
Task nomor-0
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>gradle -q task3
Task nomor-3
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>gradle -q task2
Task nomor-2
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>gradle -q task2
Task nomor-2
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\loopingTask>
```

```
Bagian 6
Task: Konfigurasi, Eksekusi,
Operasi, Build-in Task
```

Task Declarations

```
taskTutorial >  build.gradle

1  task namaTask

C:\Windows\System32\cmd.exe

C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\taskTutorial>gradle -q namaTask

C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\taskTutorial>
```

Task Declarations (2)

```
build.gradle X
 taskTutorial > R build.gradle
         task namaTask
         namaTask {
             doLast {
                  println 'Action pertama ditambahkan ke dalam task.'
         namaTask {
             doLast {
  11
                  println 'Action kedua ditambahkan ke dalam task.'
   12
   13
C:\Windows\System32\cmd.exe
::\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\taskTutorial>gradle -q namaTask
Action pertama ditambahkan ke dalam task.
Action kedua ditambahkan ke dalam task.
:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\taskTutorial>
```

Task: Configuration

```
EXPLORER
                           > OPEN EDITORS
                           taskconfig > R build.gradle
                                   task konfigurasi
V IMPLEMENTASI GRADLE
  > .gradle
                                   konfigurasi {
  > build
                                        doLast {
  > groovyTest
                                             println "Checking network connectio
  > loopingTask

✓ taskconfig

  w build.gradle
                                   konfigurasi {
  > taskTutorial
                                        doLast {
 build.gradle
                                             println "Connecting to server"
                             11
                             12
                             13
                                   konfigurasi {
                                        doLast {
                                             println "Conenction is established"
                             17
                                   konfigurasi {
                                        println "Setting up connection request"
                             22
                             24
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\taskconfig>gradle -q konfigurasi
Setting up connection request
Checking network connection
Connecting to server
onenction is established
:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\taskconfig>_
```

DefaultTask Method: dependsOn(task)

```
EXPLORER
                         build.gradle X
> OPEN EDITORS
                         defTask > R build.gradle
                                task setUpConnection {
✓ IMPLEMENTASI_GRADLE
                                     println 'Setting up database connection
 > .gradle
 > build

✓ defTask

                                task connectToDatabase {
 w build.gradle
                                     dependsOn 'setUpConnection'
 > groovyTest
                                     //open connection
 > loopingTask
 > taskconfig
                                task extractDatabase {
 > taskTutorial
                                     dependsOn connectToDatabase
                           11
 🗬 build.gradle
                           12
                                     println 'Data succesfully extracted'
                           13
                                 task closeConnection {
                                     dependsOn << extractDatabase
                                     //close connection
```

```
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\defTask>gradle -q setUpConnection
Setting up database connection
Data succesfully extracted
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\defTask>gradle -q closeConnection
Setting up database connection
Data succesfully extracted
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\defTask>
```

```
defTask >  build.gradle

1   task setUpConnection {
2     println 'Setting up database connection'
3   }
4
5   task connectToDatabase
6   connectToDatabase {
7     println 'Connecting to database'
8   }
9
10   task extractDatabase {
11     dependsOn setUpConnection,connectToDatabase
12     println 'Data succesfully extracted !'
13   }
14
15   task closeConnection(dependsOn:extractDatabase) {
16     println 'Database connection closed'
17   }
18
```

C:\Windows\System32\cmd.exe

```
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\defTask>gradle -q closeConnection
Setting up database connection
Connecting to database
Data succesfully extracted !
Database connection closed
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\defTask>_
```

DefaultTask Method: doFirst(closure)

```
build.gradle X
  EXPLORER
> OPEN EDITORS
                             doFirst > 2 build.gradle
                                      task extractDatabase {

✓ IMPLEMENTASI_GRADLE

                                           doLast {
  > .gradle
                                                println 'Extracting database metada
  > build
  > defTask

✓ doFirst

   > .gradle
                                      extractDatabase {
                                           doFirst {
  m build.gradle
                                                println 'Connectiong to the databas
  > groovyTest
  > loopingTask
                               11
  > taskconfig
  > taskTutorial
 🗬 build.gradle
 C:\Windows\System32\cmd.exe
:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\doFirst>gradle -q extractDatabase
Connectiong to the database...
Extracting database metadata...
:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\doFirst>
```

```
doFirst >  build.gradle

1   task extractDatabase {
2     doLast {
3         println 'Extracting database metadata...'
4     }
5  }
6
7   extractDatabase {
9         println 'Connectiong to the database...'
10     }
11     doFirst {
12         println 'Setting up to the database...'
13     }
14  }
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\doFirst>gradle -q extractDatabase Setting up to the database...
Extracting database metadata...
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\doFirst>
Extracting database metadata...
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\doFirst>
```

DefaultTask Method: doLast(closure)

```
C:\Users\LAB_TI_33\VSCodefile\implementasi_gradle\doFirst>gradle -q extractDatabase
Setting up to the database...
Connectiong to the database...
Extracting database metadata...
Downloading data...
closing database connection..
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\doFirst>
```

DefaultTask Method: onlylf(closure)

```
Run · · · build.gradle - implementasi_gradle - Vi...
  EXPLORER
                         build.gradle X
> OPEN EDITORS
                         ifOnly > R build.gradle
                                 task extractMetadata {

✓ IMPLEMENTASI GRADLE

                                     doLast {println 'Extracting Metadata.'}
  .gradle
  > build
                                 extractMetadata.onlyIf {
  > defTask
                                     System.properties['extract.metadata'] =
  > doFirst
  > groovyTest
                                 task extractData {

✓ ifOnly

                                     doLast {println 'extracting database da
  build.gradle
                           10
                                 task extractDatabase
  > loopingTask
                           11
  > taskconfig
                           12
                                 extractDatabase {
  > taskTutorial
                                     doLast {println 'Zipping extracted data
 build.gradle
                                 extractDatabase {
                                     doLast{println 'closing database connec
                           17
                                 extractDatabase.dependsOn extractData, extr
                                 extractData {
                                     doFirst {println "connecting to databas
                           21
                                     doFirst { println 'setting up database c
                           23
```

```
C:\Windows\System32\cmd.exe
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\ifOnly>gradle extractDatabase
 Task :extractData
setting up database connection connecting to database.
extracting database data.
 Task :extractDatabase
Zipping extracted data to backupdata.zip closing database connection.
BUILD SUCCESSFUL in 20s
2 actionable tasks: 2 executed
 C:\Windows\System32\cmd.exe
                                                                                                       X
2 actionable tasks: 2 executed
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\ifOnly>gradle -Dextract.metadata=true extractDatab
ase
> Task :extractData
setting up database connection
connecting to database.
extracting database data.
> Task :extractMetadata
Extracting Metadata.
> Task :extractDatabase
Zipping extracted data to backupdata.zip closing database connection.
BUILD SUCCESSFUL in 18s
 actionable tasks: 3 executed
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\ifOnly>
```

DefaultTask

C:\Windows\System32\cmd.exe

BUILD SUCCESSFUL in 20s 1 actionable task: 1 executed

```
EXPLORER
                          build.gradle X
> OPEN EDITORS
                           didWork > R build.gradle
                                   defaultTasks 'DisplayTasks'
V IMPLEMENTASI GRADLE
 > .gradle
                                   task emptyTask {
 > build
                                       doLast{
 > defTask

✓ didWork

  > .gradle
 w build.gradle
                                   task DisplayTasks {
 > doFirst
                                       doLast {
 > groovyTest
                                            tasks.each {
                            11
 > ifOnly
                            12
                                                 println "Tak name is ${it.name}
 > loopingTask
 > taskconfig
 > taskTutorial
 🗬 build.gradle
```

```
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\didWork>gradle
 Task :DisplayTasks
Tak name is DisplayTasks
Tak name is buildEnvironment
Tak name is components
Tak name is dependencies
Tak name is dependencyInsight
Tak name is dependentComponents
Tak name is emptyTask
Tak name is help
Tak name is init
Tak name is model
Tak name is outgoingVariants
Tak name is prepareKotlinBuildScriptModel
Tak name is projects
Tak name is properties
Tak name is tasks
Tak name is wrapper
```

:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle\didWork>



Membuat Sebuah direktori

```
task ensureDirectory {
    doLast {
        mkdir "images"
    }
}
```

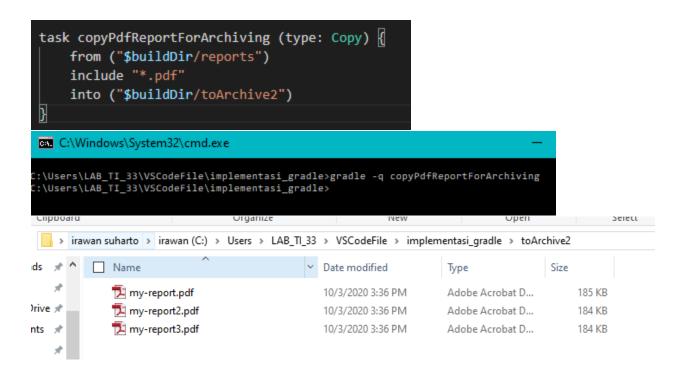
> irawan suharto > irawan (C:) > Users > LAB_TI_33 > VSCodeFile > implementasi_gradle				
* ^	Name	Date modified	Туре	Size
A.	.gradle	10/3/2020 12:04 PM	File folder	
rt .	huild	10/3/2020 12:46 PM	File folder	
x .	def Task	10/3/2020 1:32 PM	File folder	
y I	didWork	10/3/2020 2:17 PM	File folder	
Frc	doFirst	10/3/2020 1:52 PM	File folder	
	groovyTest	10/3/2020 12:56 PM	File folder	
	ifOnly	10/3/2020 2:12 PM	File folder	
	🗌 📙 images 🤛	10/3/2020 2:34 PM	File folder	
	looping Task	10/3/2020 1:03 PM	File folder	
	taskconfig	10/3/2020 1:22 PM	File folder	
	taskTutorial	10/3/2020 1:13 PM	File folder	
	build.gradle	10/3/2020 2:33 PM	GRADLE File	

Menyalin Sebuah File

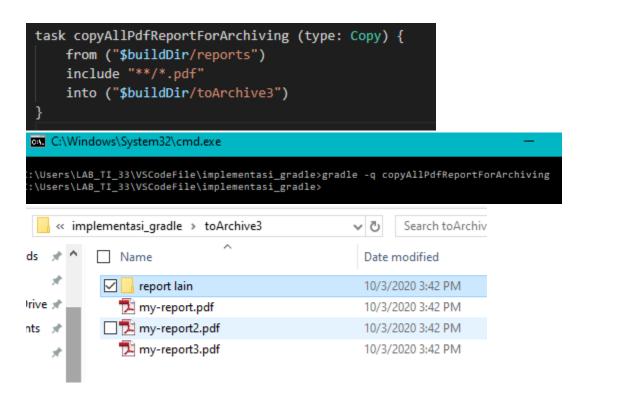
```
buildDir = "C:/Users/LAB_TI_33/VSCodeFile/implementasi_gradle"
task copyReport(type: Copy) {
     from file ("$buildDir/reports/my-report.pdf")
     into file ("$buildDir/toArchive")
:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -q copyReport
 :\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>
task copyReport2 (type: Copy) {
     from ("$buildDir/reports/my-report2.pdf")
     into ("$buildDir/toArchive")
:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -q copyReport2
> irawan suharto > irawan (C:) > Users > LAB_TI_33 > VSCodeFile > implementasi_gradle > toArchive
     Name
                                             Date modified
         🔁 my-report.pdf
                                             10/3/2020 3:00 PM
                                                                  Adobe Acrobat D...
                                                                                        185 KB
         🔁 my-report2.pdf
                                             10/3/2020 3:13 PM
                                                                  Adobe Acrobat D...
                                                                                        184 KB
```

Menyalin Lebih Dari Satu File

```
task copyReportForArchiving (type: Copy) {
      from ("$buildDir/reports/my-report3.pdf", "src/docs/manual.pdf")
      into ("$buildDir/toArchive")
 C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -q copyReportForArchiving
 C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>
irawan suharto > irawan (C:) > Users > LAB_TI_33 > VSCodeFile > implementasi_gradle > toArchive
     Name
                                              Date modified
                                                                                      Size
                                                                    Type
        manual.pdf
                                              10/3/2020 3:22 PM
                                                                   Adobe Acrobat D...
                                                                                          184 KB
        my-report.pdf
                                              10/3/2020 3:00 PM
                                                                   Adobe Acrobat D...
                                                                                          185 KB
         my-report2.pdf
                                                                   Adobe Acrobat D...
                                              10/3/2020 3:13 PM
                                                                                          184 KB
         🔁 my-report3.pdf
                                              10/3/2020 3:22 PM
                                                                   Adobe Acrobat D...
                                                                                          184 KB
```

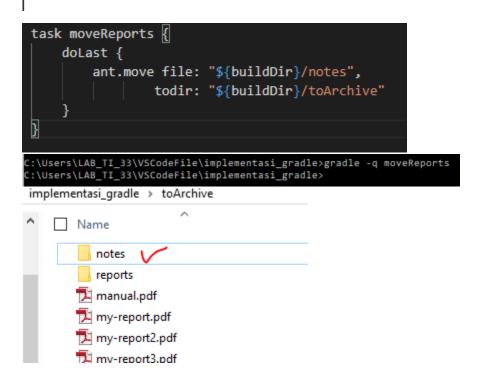


Menyalin Lebih Dari Satu File (2)

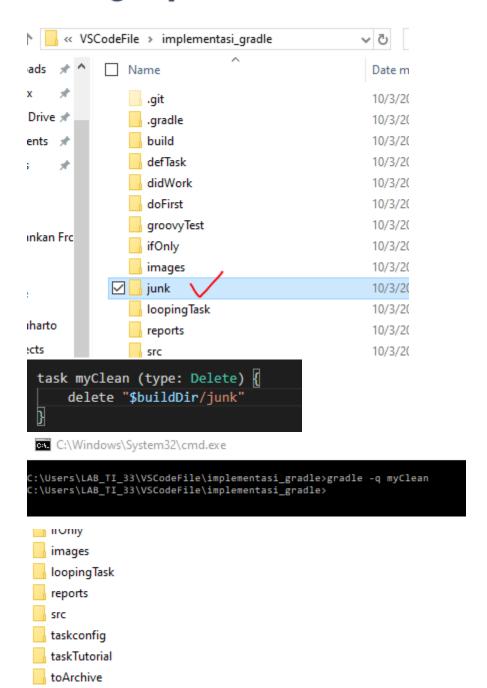


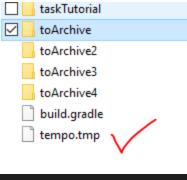
Menyalin Sebuah Direktori

Memindahkan file dan direktori



Menghapus sebuah file





```
task cleanTempFiles (type: Delete) {
    delete fileTree(["$buildDir"]].matching {
        include "**/*.tmp"
    }
}
```

C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -q myClean
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>gradle -q cleanTempFIles
C:\Users\LAB_TI_33\VSCodeFile\implementasi_gradle>

- toArchive
- toArchive2
- toArchive3
- toArchive4
- build.gradle