

# ThoughtWorks®

*Let's talk about gradle*

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# GRADLE

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*Zhang Shuai*

# 内容

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- Gradle是什么?
- Groovy Fundamentals介绍
- Gradle Task 定义
- Gradle Task dependencies
- Gradle Task type
- Reference

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# GRADLE介绍

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## ■ Gradle是什么？

- ☐ Gradle是在Java(JVM)中提供构建技术的构建系统 (Build System)
- ☐ Gradle是一个类似Ant构建工具
- ☐ Gradle提供类似Maven的框架，以及Maven的Repo
- ☐ Gradle提供依赖管理 (Dependancy Management)
- ☐ Gradle支持Groovy/Java/Scala等语言，是一种DSL (Domain Special Language)

## ■ Installing Gradle

- ☐ `$ brew install gradle`

## ■ Gradlew VS Gradle

- ☐ Gradlew == Gradle Wrapper
- ☐ 这是一个特定版本的wrapper，当你第一次运行时会自动下载特定版本的gradle

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# GROOVY FUNDAMENTALS

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## ■ Write Java in gradle

```
class Hello {  
    public static void sayHello() {  
        System.out.println("Hello, Gradle!");  
    }  
}  
  
Hello hello = new Hello()  
hello.sayHello()
```

## ■ Groovy dynamically type(Check in runtime)

```
def foo = 6.5  
def foo = 'Hello'
```

## ■ Groovy function

```
def doubleIt(n) {  
    n+n  
}
```

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# GRADLE TASK定义

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## ■ Task basic elements

- ☐ Task definition
- ☐ Task group
- ☐ Task description

## ■ Task different write ways

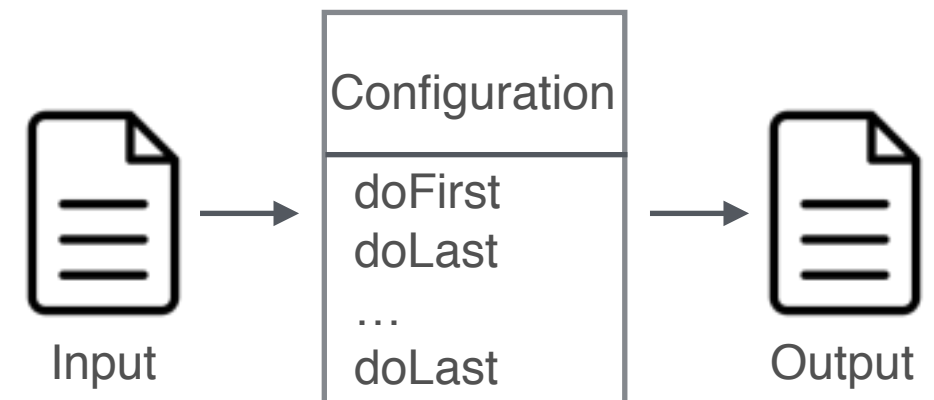
- ☐ doFirst
- ☐ doLast
- ☐ leftShift

## ■ Task configuration VS task execution

- ☐ Initialization
- ☐ Configuration(Run every time when task changed)
- ☐ Execution

Task state: updated

doFirst before doLast



\* task sample life cycle

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# GRADLE TASK DEPENDENCIES

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## ■ Task dependence

- ☐ Dependence on one task

`dependsOn drink`

- ☐ Dependence on multiple tasks: these task do not have sequence

`dependsOn = ['drink', 'addSweetener']`

- ☐ Must run after

`mustRunAfter pour`

## ■ Task enable

- ☐ Only if
- ☐ Enabled

## ■ Task params

- ☐ Add in gradle.properties
- ☐ Add in task ``ext``
- ☐ Add in commandLine

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# GRADLE TASK TYPE

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- Gradle default type

- ☐ Copy, Delete
- ☐ Reporting
- ☐ Exec

- Gradle plugin type

- ☐ Java plugin
- ☐ com.android.application plugin

- Custom type

- ☐ Custom type define
- ☐ Action method

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# REFERENCE

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■ ***Gradle office doc:***

<https://docs.gradle.org/current/dsl/>

■ ***Udacity course(ud867):*** 强烈推荐

<https://www.udacity.com/course/viewer#!/c-ud867>

<https://github.com/udacity/ud867>

■ ***Gradle Tutorial(dermetfan):***

<https://www.youtube.com/watch?v=7aICuE7cNVQ>



# 谢谢

有问题请联系

张帅

[shuaiz@thoughtworks.com](mailto:shuaiz@thoughtworks.com)

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