# IDE 中常用的插件

## 第 1 章 在 Eclipse 中使用 Maven

### 1.1 安装 Maven 核心程序

1) 下载地址：http://maven.apache.org/

2) 检查 JAVA_HOME 环境变量。Maven 是使用 Java 开发的，所以必须知道当前系统环境中 JDK 的安装目录。

```
C:\Users\韩总>echo %JAVA_HOME%
D:\Java\jdk1.8.0_111
```

3) 解压 Maven 的核心程序。

将 apache-maven-3.6.3-bin.zip 解压到一个**非中文无空格**的目录下。例如：

```
D:\apache-maven-3.6.3
```

4) 配置环境变量。

| MAVEN_HOME |
| --- |
| D:\apache-maven-3.6.3 |

| path |
| --- |
| %MAVEN_HOME%\bin |

5) ④查看 Maven 版本信息验证安装是否正确

```
C:\Users\韩总>mvn -v
Apache Maven 3.6.3 (cecedd343002696d0abb50b32b541b8a6ba2883f)
```

```
Maven home: D:\apache-maven-3.6.3\bin\..

Java version: 1.8.0_111, vendor: Oracle Corporation, runtime:
D:\Java\jdk1.8.0_111\jre

Default locale: zh_CN, platform encoding: GBK

OS name: "windows 10", version: "10.0", arch: "amd64", family: "windows"
```

# 1.2 配置本地仓库和阿里云镜像

## 1.2.1 配置本地仓库

1) Maven 的核心程序并不包含具体功能，仅负责宏观调度。具体功能由插件来完成。Maven 核心程序会到本地仓库中查找插件。如果本地仓库中没有就会从远程中央仓库下载。此时如果不能上网则无法执行 Maven 的具体功能。为了解决这个问题，我们可以将 Maven 的本地仓库指向一个在联网情况下下载好的目录。
2) Maven 默认的本地仓库：~\.m2\repository 目录。
   Tips：~表示当前用户的家目录。
3) 找到 Maven 的核心配置文件 settings.xml 文件：

```
解压目录 D:\apache-maven-3.6.3\conf\settings.xml
```

4) 设置方式
   <localRepository>本地仓库的路径</localRepository>

```
<localRepository>E:\LocalRepository</localRepository>
```

## 1.2.2 配置阿里云镜像

为了下载 jar 包方便，在 Maven 的核心配置文件 settings.xml 文件的<mirrors></mirrors>标签里面配置以下标签：

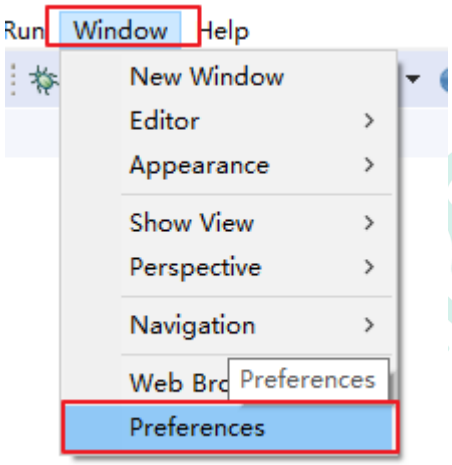
```
<mirror>
    <id>nexus-aliyun</id>
    <mirrorOf>central</mirrorOf>
```

```
    <name>Nexus aliyun</name>
    <url>http://maven.aliyun.com/nexus/content/groups/public</url>
</mirror>
```

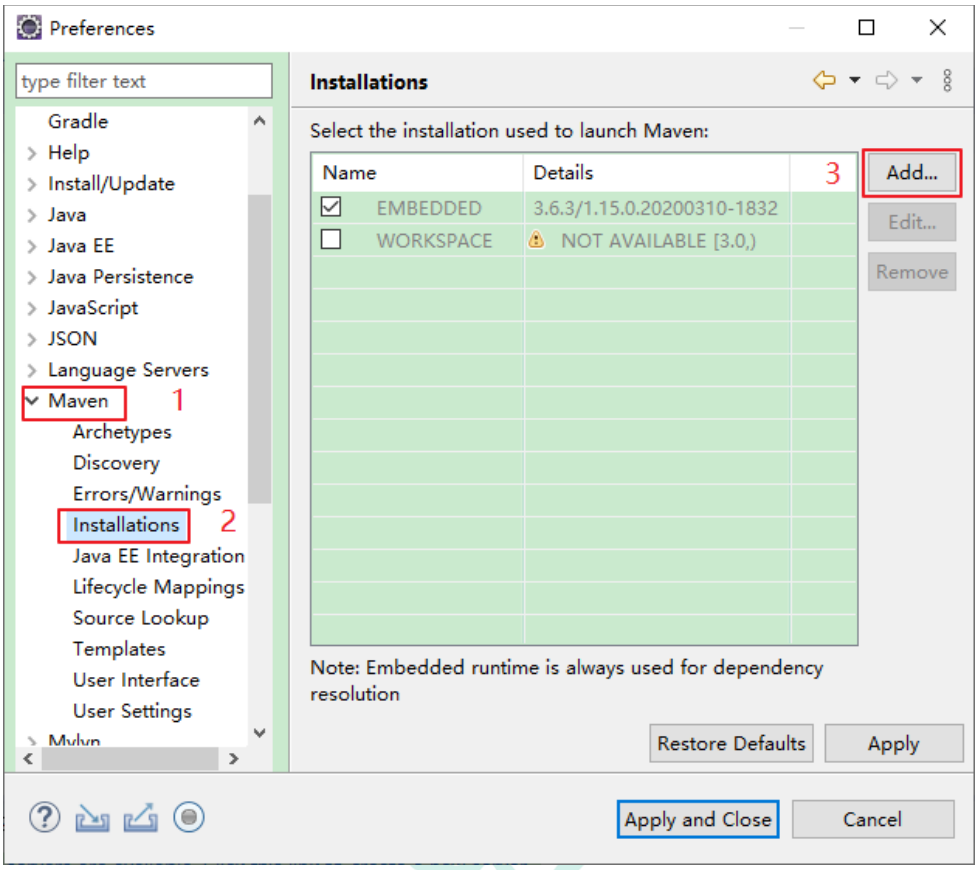
## 1.3 在 Eclipse 中配置 Maven

Eclipse 中默认自带 Maven 插件，但是自带的 Maven 插件不能修改本地仓库，所以通常我们不使用自带的 Maven，而是使用自己安装的，在 Eclipse 中配置 Maven 的步骤如下：

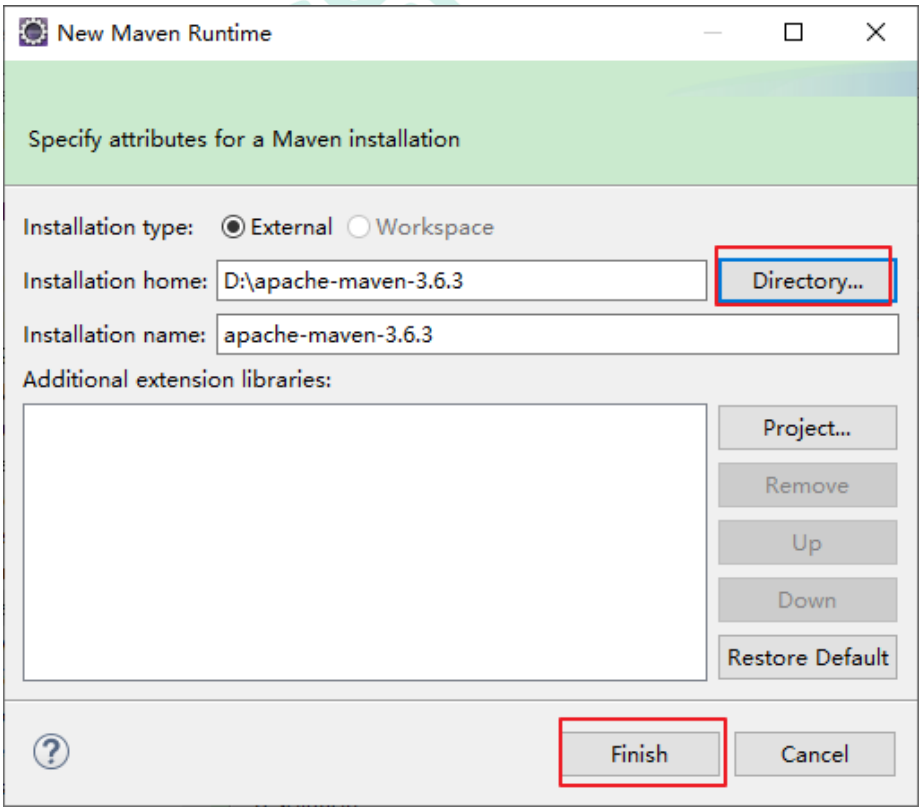
1) 点击 Eclipse 中的 Window→Preferences



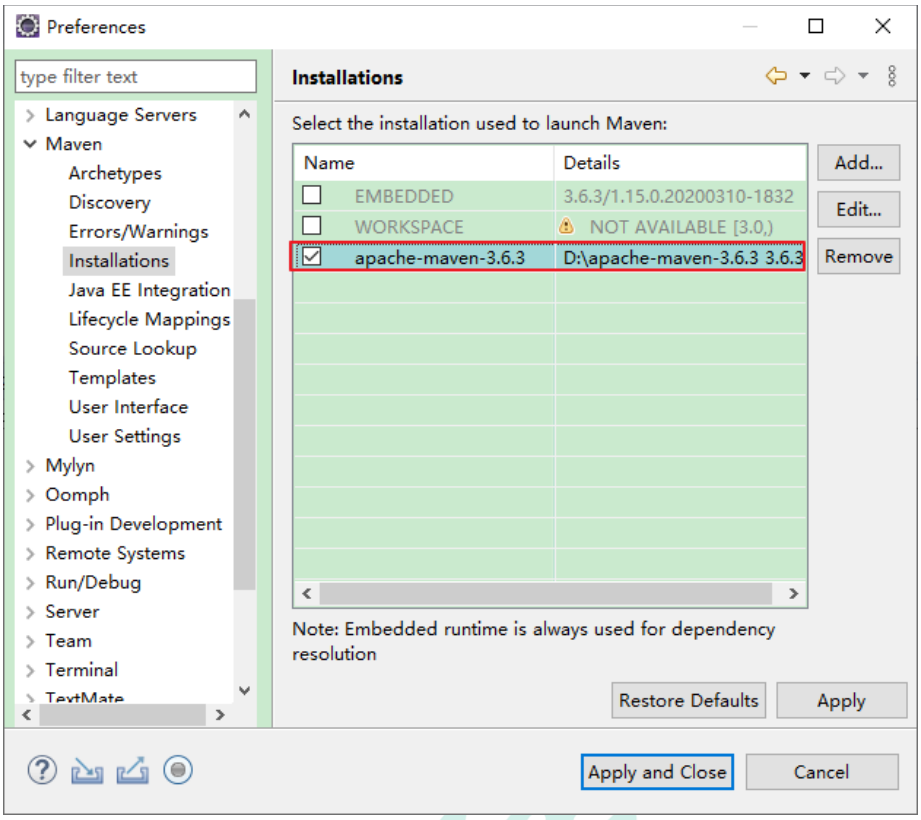

2) 点开 Maven 前面的箭头，选择 Installations，点击 Add…



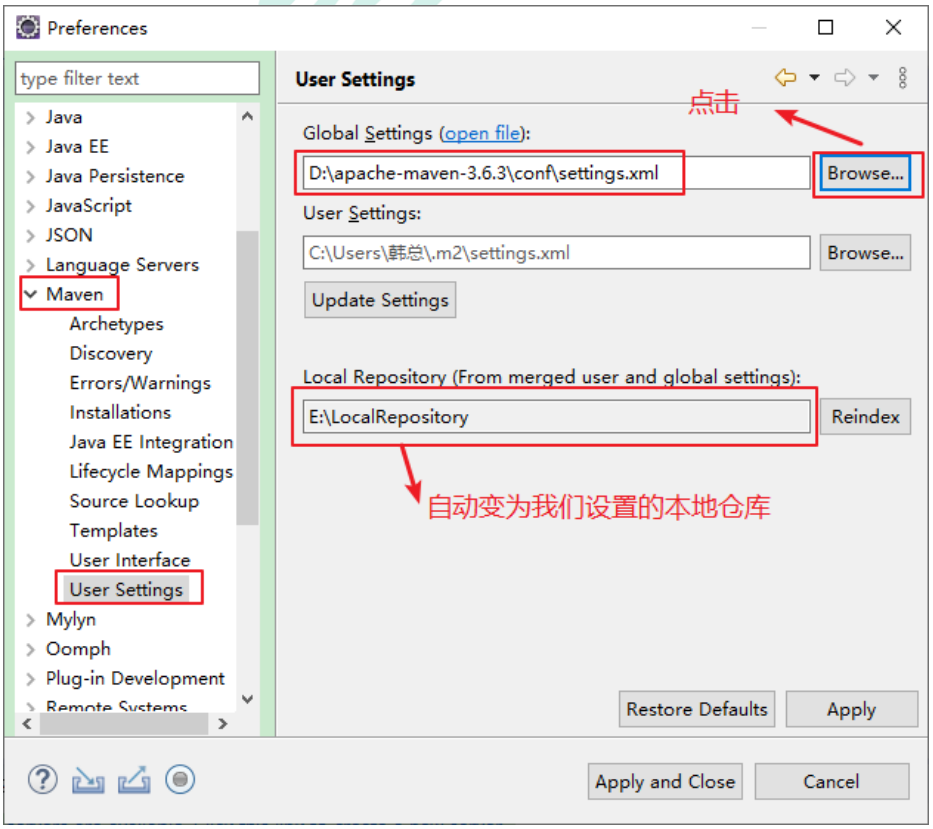

3) 点击 Directory...选择我们安装的 Maven 核心程序的根目录，然后点击 Finish




4) 勾上添加的 Maven 核心程序



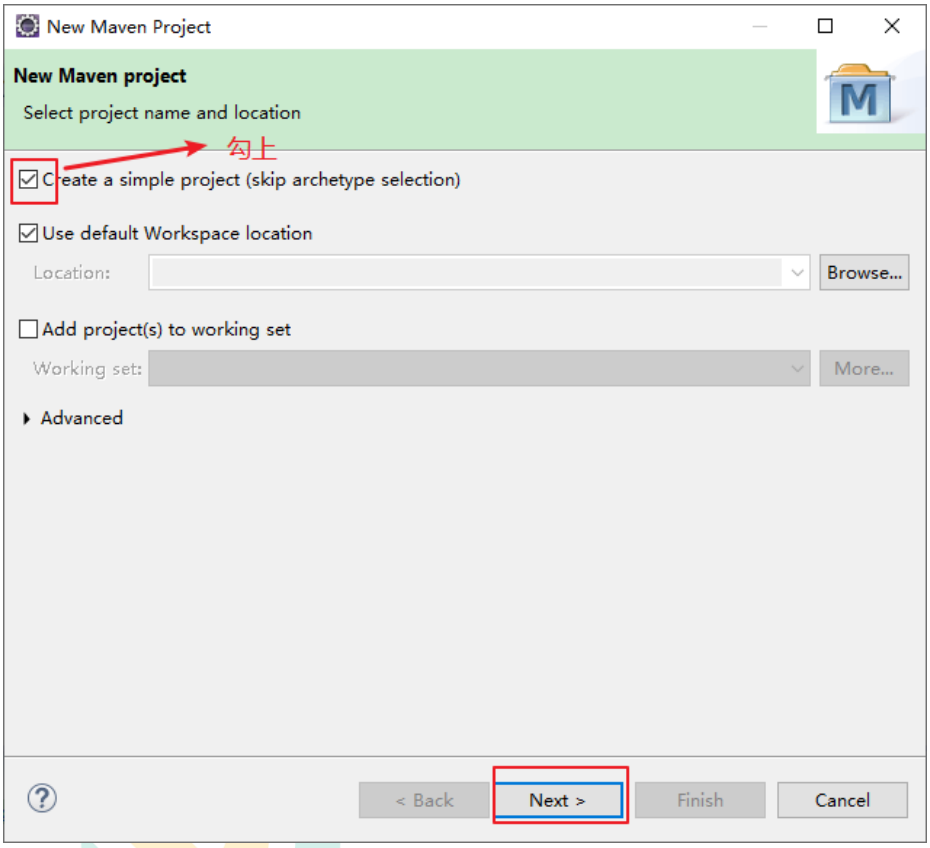

5) 选择 Maven 下的 User Settings，在全局设置哪儿点击 Browse…选择 Maven 核心程序的配置文件 settings.xml，本地仓库会自动变为我们在 settings.xml 文件中设置的路径



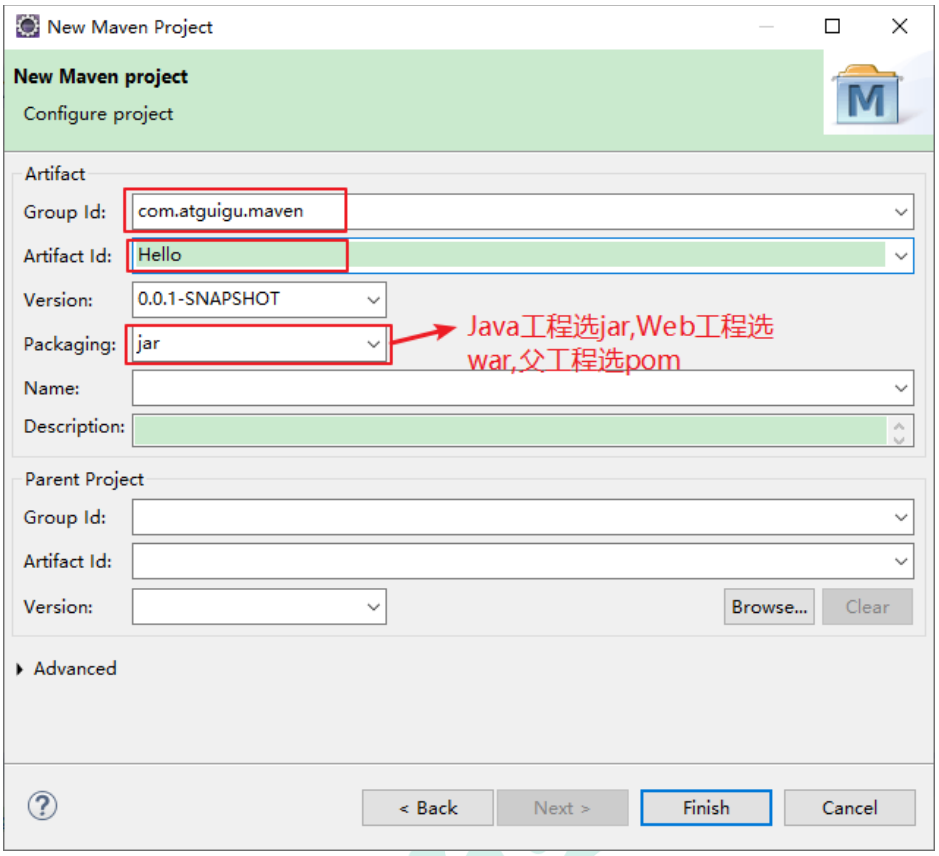
# 1.4 在 Eclipse 中创建 Maven 项目

## 1.4.1 创建 Java 工程

1) 点击 File→New→Maven Project，弹出如下窗口




2) 点击 Next，配置坐标（GAV）及打包方式，然后点击 Finish




3) 创建完工程之后发现默认的 JDK 的编译版本是 1.5，在 Maven 的核心配置文件 settings.xml 文件中添加以下配置将编译版本改为 1.8，重启 Eclipse 即可

```
    <profile>
      <id>jdk-1.8</id>
      <activation>
        <activeByDefault>true</activeByDefault>
        <jdk>1.8</jdk>
      </activation>
      <properties>
          <maven.compiler.source>1.8</maven.compiler.source>
          <maven.compiler.target>1.8</maven.compiler.target>

<maven.compiler.compilerVersion>1.8</maven.compiler.compilerVersion>
      </properties>
</profile>
```

4) 配置 Maven 的核心配置文件 pom.xml 文件

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.atguigu.maven</groupId>
  <artifactId>Hello</artifactId>
  <version>0.0.1-SNAPSHOT</version>
```

```
  <dependencies>
      <dependency>
            <groupId>junit</groupId>
            <artifactId>junit</artifactId>
            <version>4.12</version>
            <scope>test</scope>
      </dependency>
  </dependencies>
</project>
```

5) 编写主代码

在 src/**main**/java 目录下创建包并创建 Hello.java 文件

```
package com.atguigu.maven;

public class Hello {
       public String sayHello(String name){
              return "Hello "+name+"!";
          }
}
```

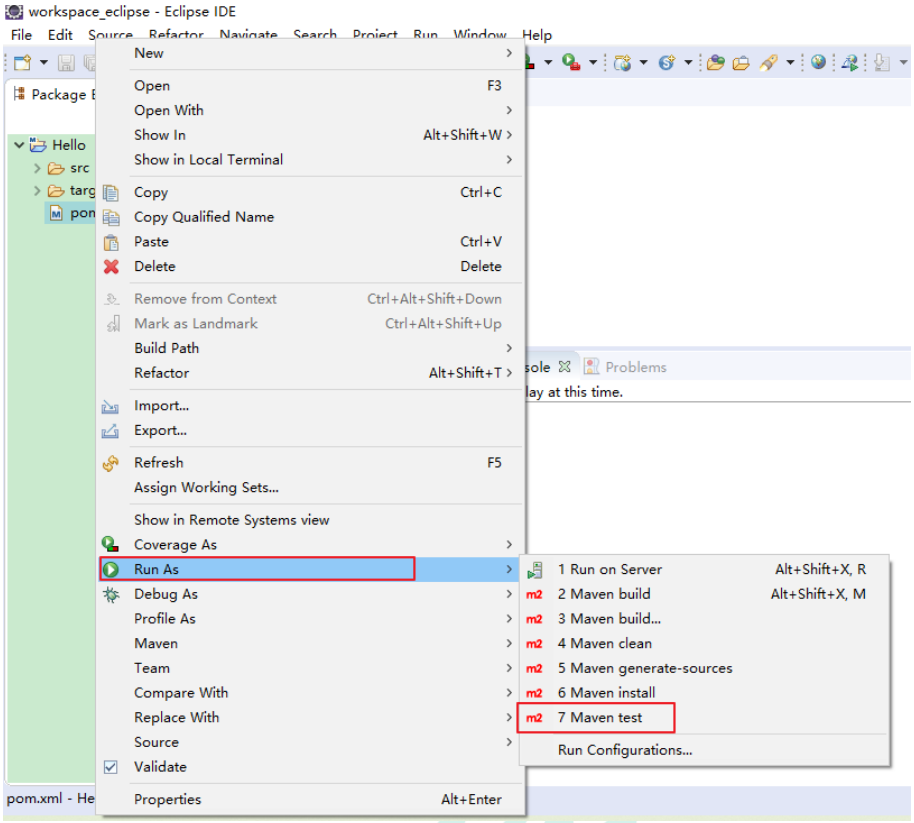
6) 编写测试代码

在 src/**test**/java 目录下创建包并创建 HelloTest.java 文件

```
package com.atguigu.maven;

import org.junit.Test;

public class HelloTest {

      @Test
      public void testHello() {
            Hello hello = new Hello();
            String maven = hello.sayHello("Maven");
            System.out.println(maven);
      }

}
```

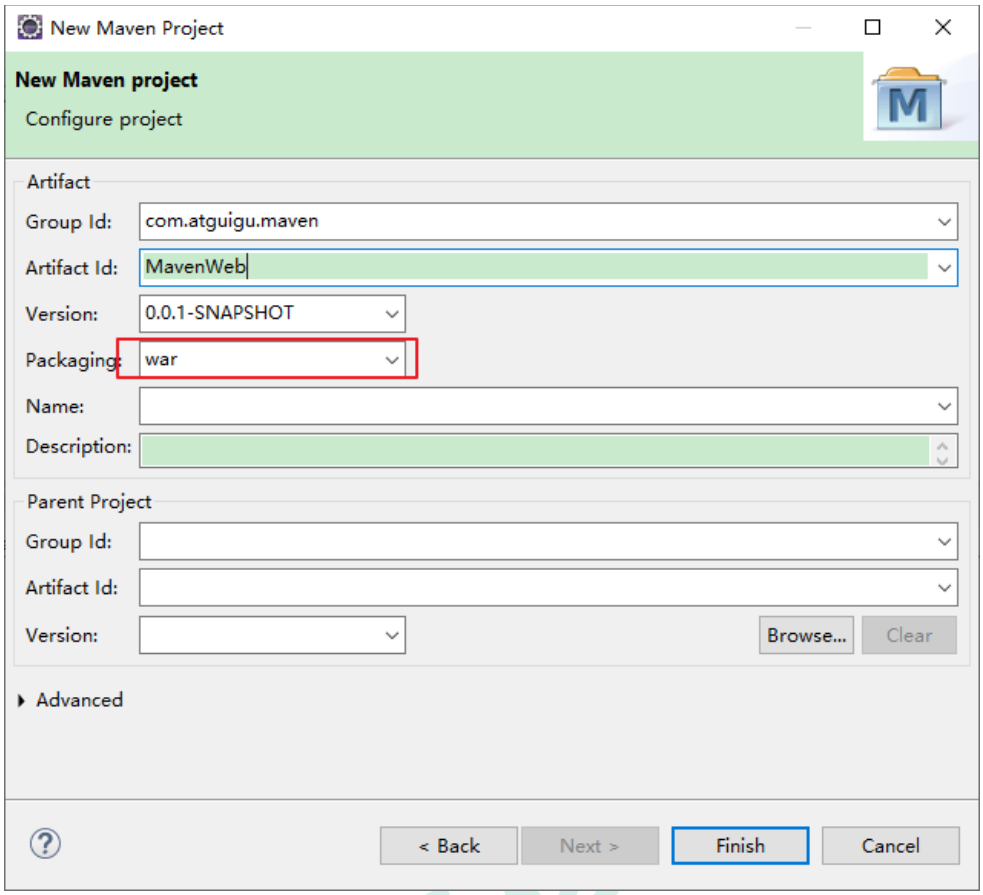
7) 使用 Maven 的方式运行 Maven 工程

在工程名 Hello 或 pom.xml 上右键→Run As 运行 Maven 项目

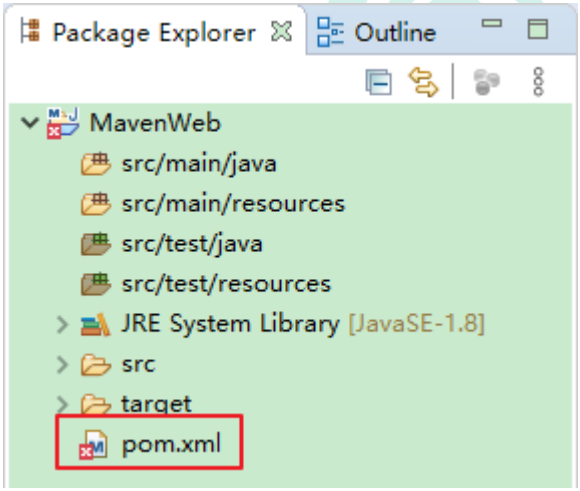



## 1.4.2 创建 Web 工程（了解）

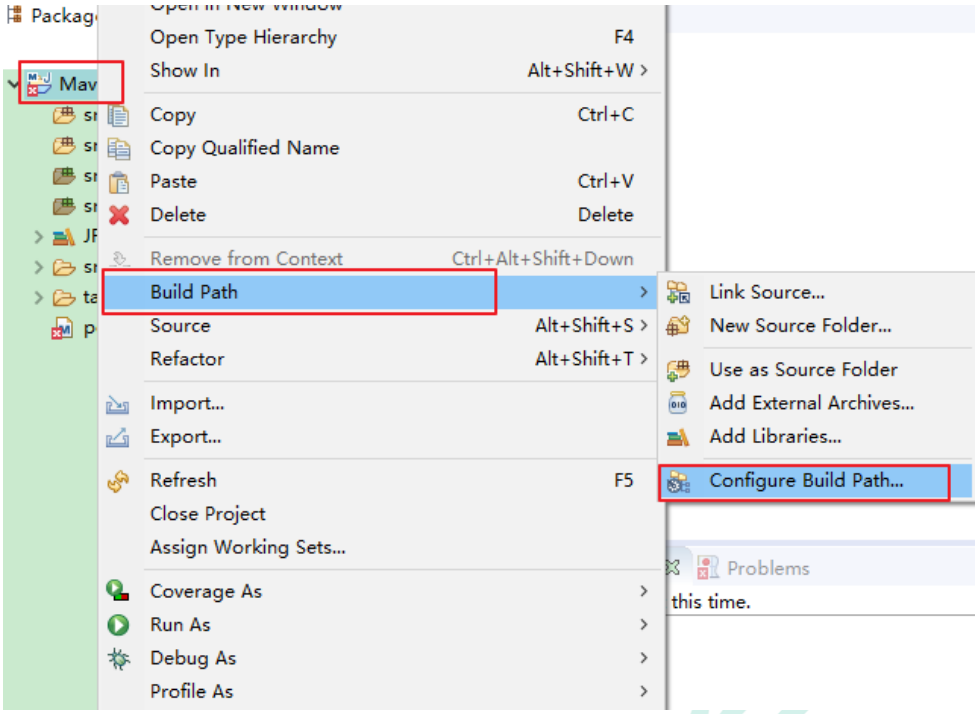
1) 创建简单的 Maven 工程，打包方式为 war 包



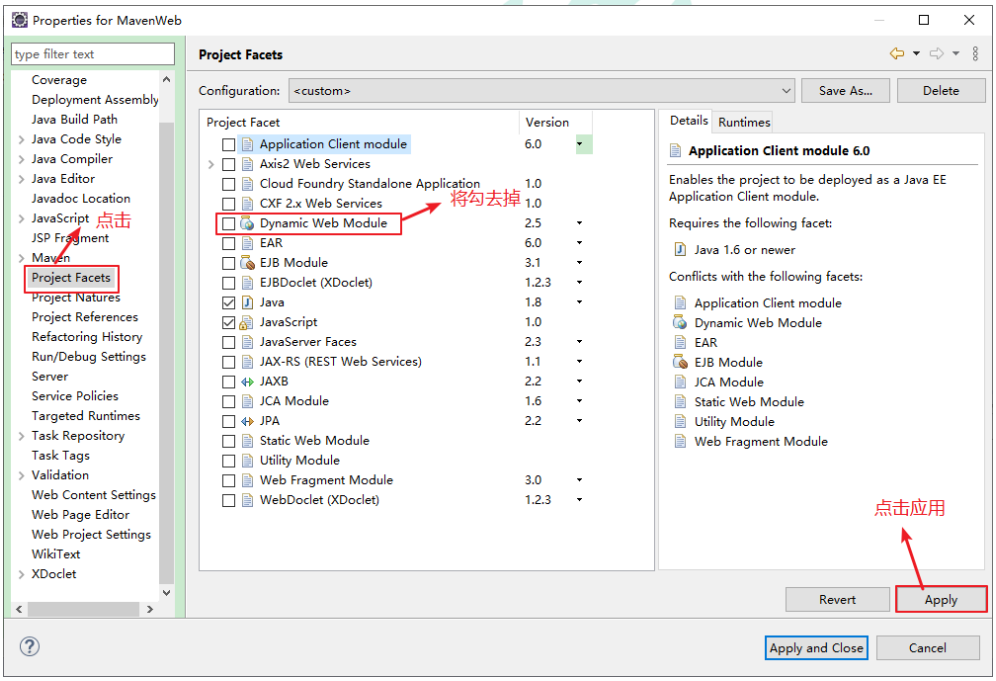

2) 创建完成之后因缺少 web.xml 文件工程出现小红叉



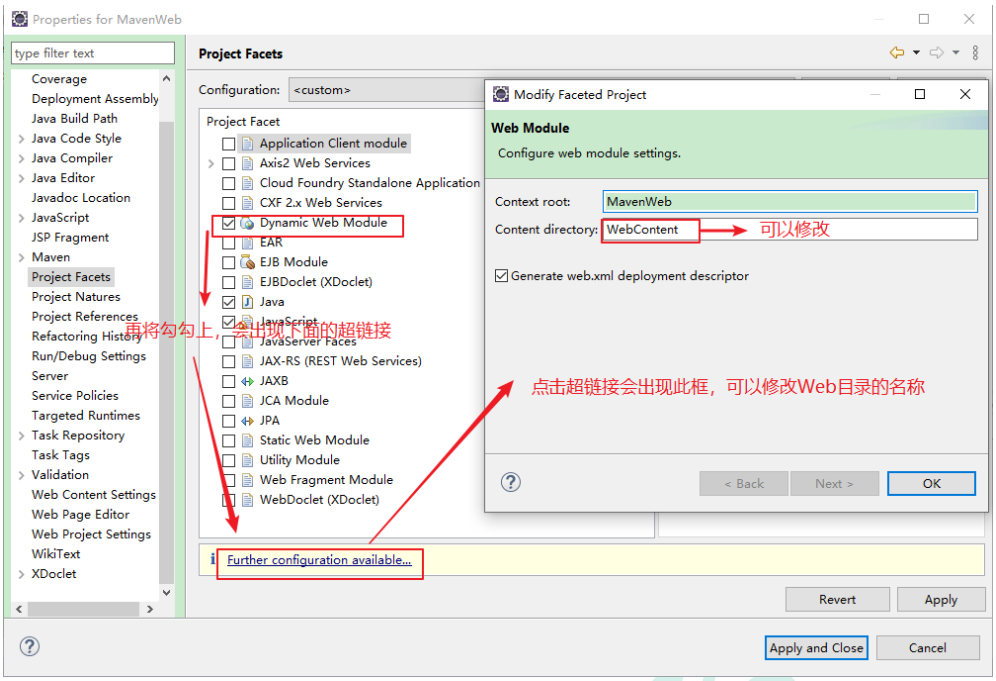

3) 在工程上右键→Build Path→Configure Build Path...



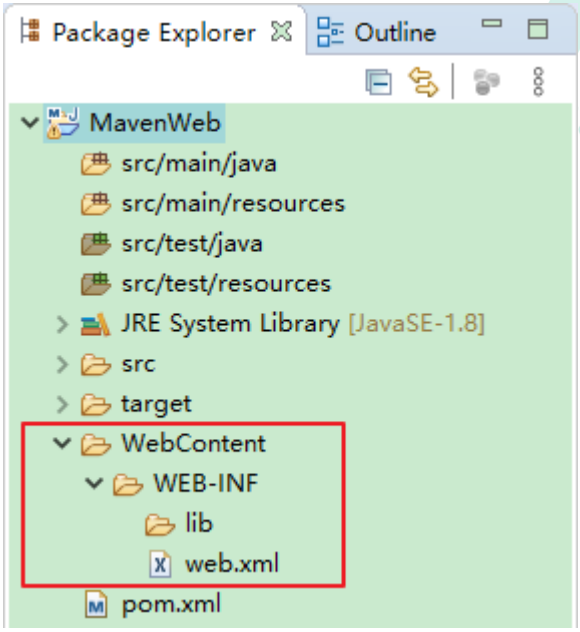

4) 点击 Project Facets 欺骗 Eclipse 当前工程不是 Web 工程，点击应用



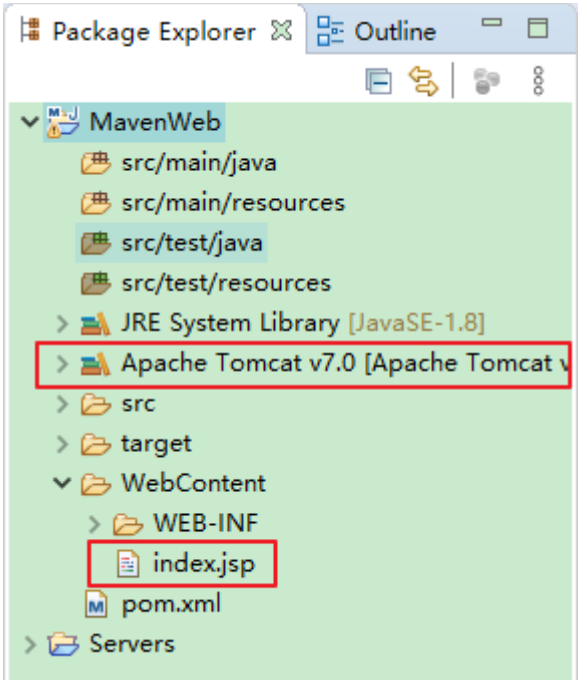

5) 再告诉 Eclipse 当前工程是一个 Web 工程，点击应用并关闭




6) 发现 MavenWeb 工程小红叉消失，并出现了 WebContext 目录




7) 在 WebContext 下创建 index.jsp 页面并添加 Tomcat 库

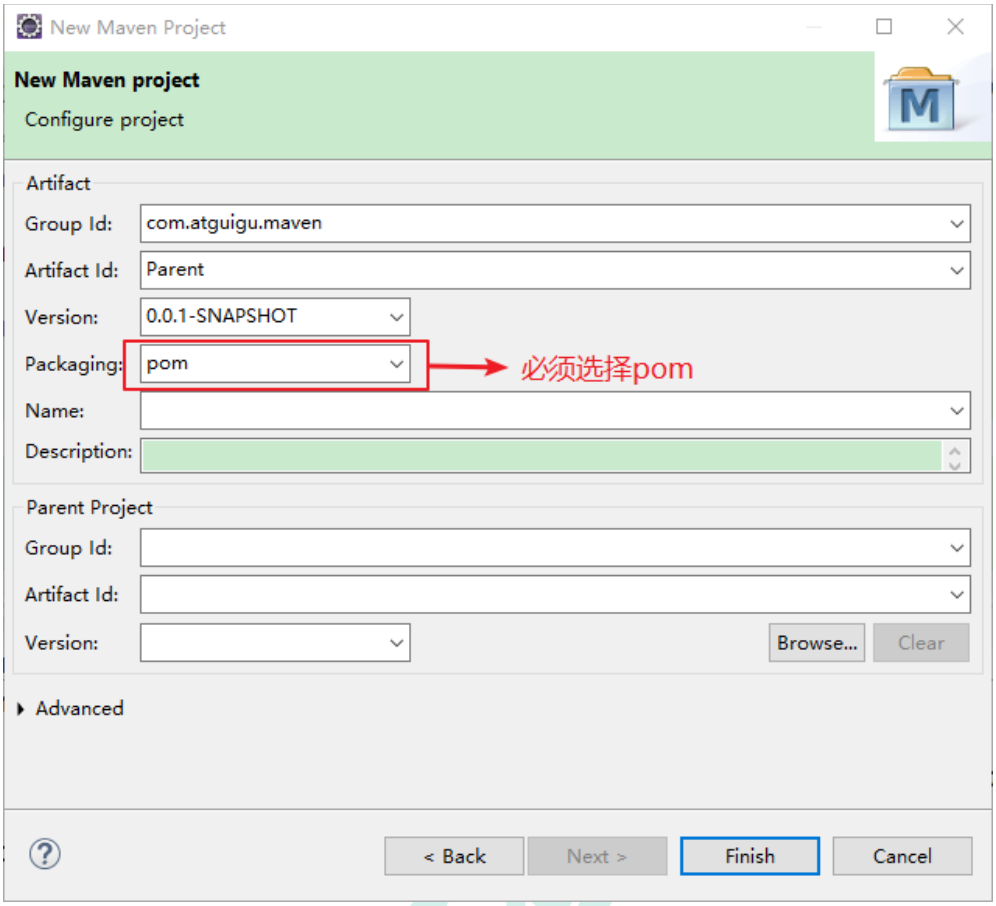



8) 在 MavenWeb 上右键→Run As→Run on Server 部署到 Tomcat 上运行

### 1.4.3 创建父工程

父工程的打包方式为 pom，父工程只需要保留 pom.xml 文件即可

1) 创建简单的 Maven 工程，打包方式选择 pom




2) 在 pom.xml 文件中通过<dependencyManagement></dependencyManagement>标签进行依赖管理

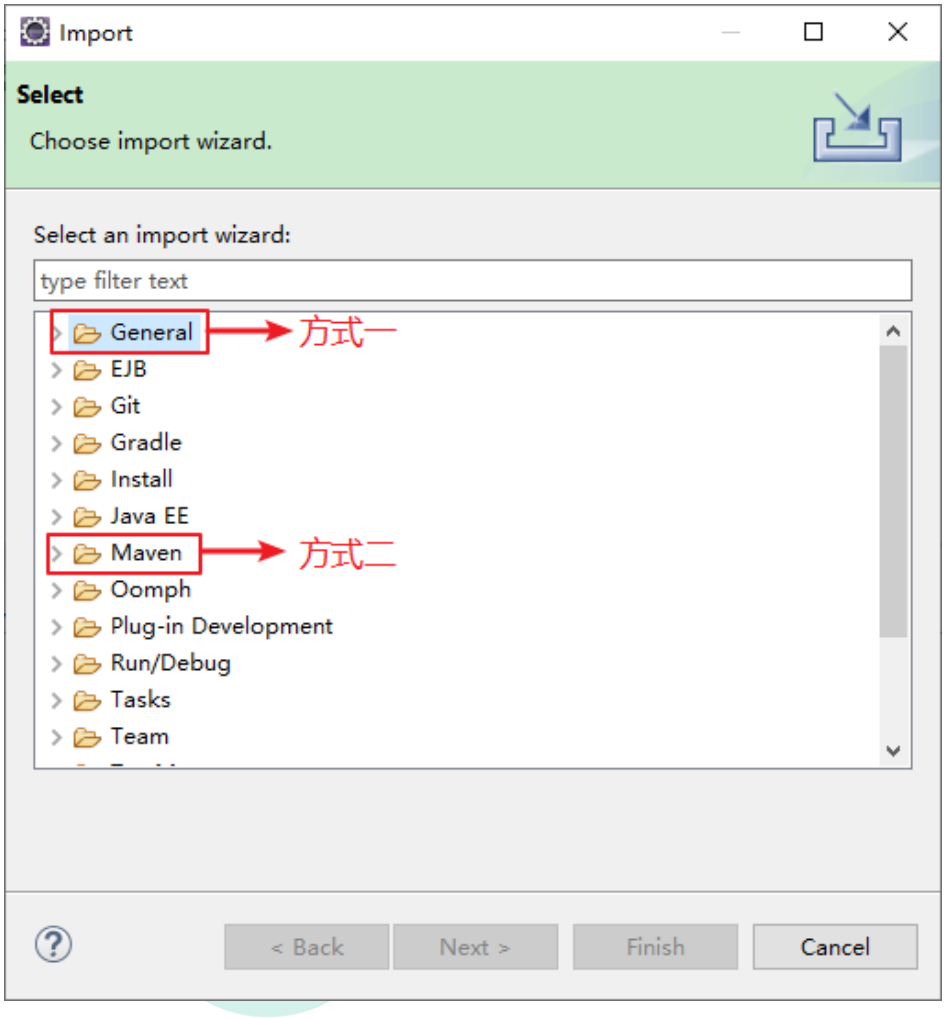
```
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.atguigu.maven</groupId>
  <artifactId>Parent</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <packaging>pom</packaging>

  <!-- 依赖管理 -->
  <dependencyManagement>
      <dependencies>
            <!-- 在此配置要管理的依赖 -->
      </dependencies>
  </dependencyManagement>
</project>
```

3) 在子工程中继承父工程

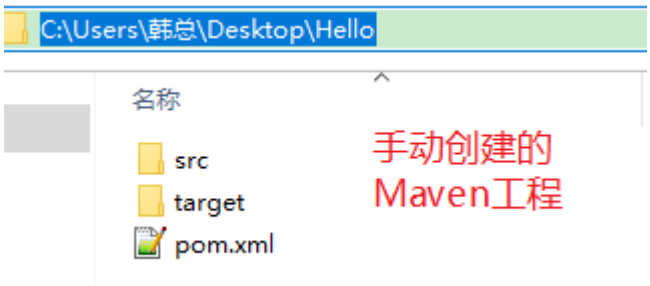
```
<!-- 继承 -->
      <parent>
         <!-- 在此配置父工程的坐标 -->
      </parent>
```

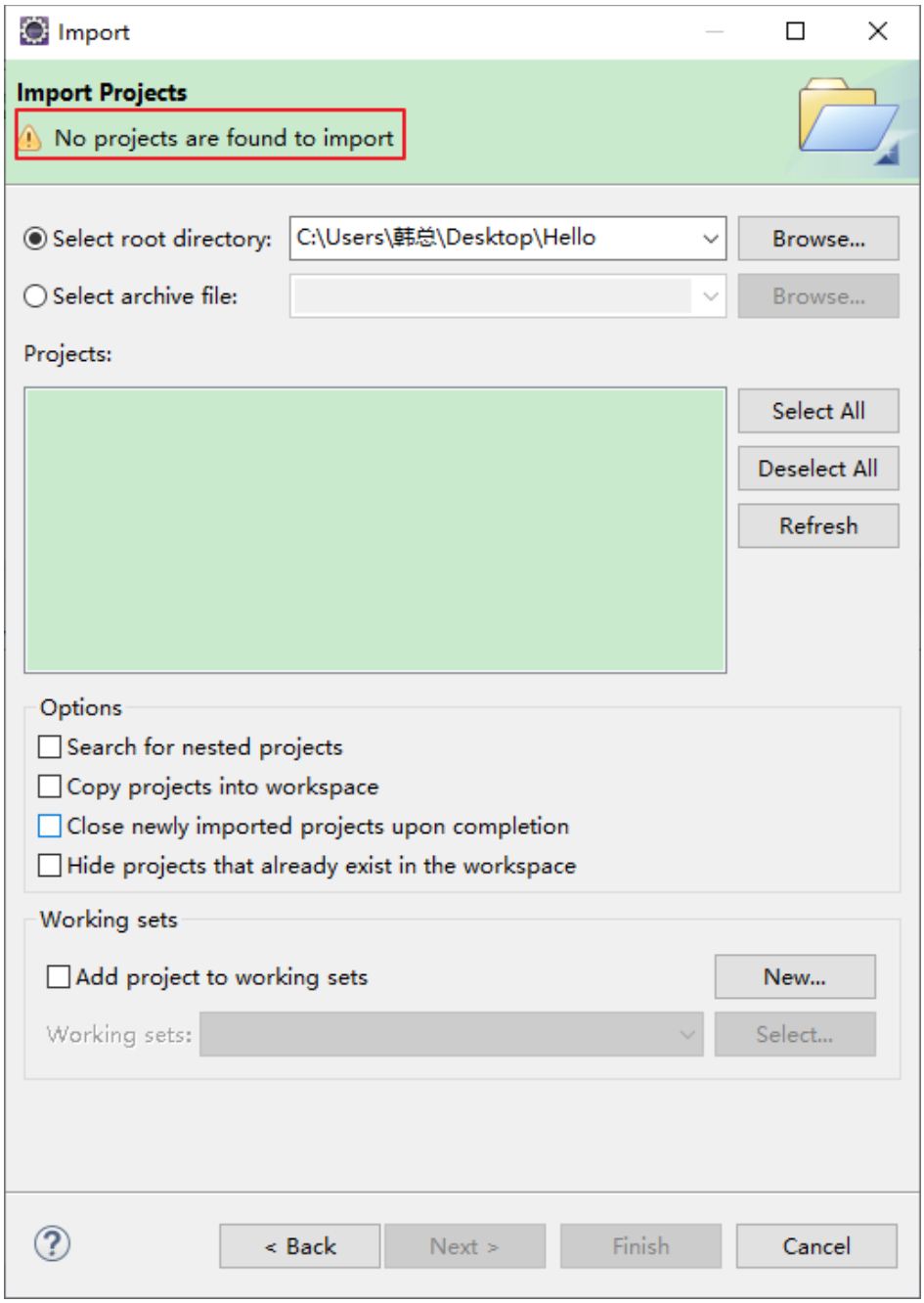
## 1.5 在 Eclipse 中导入 Maven 项目

1) 点击 File→Import…

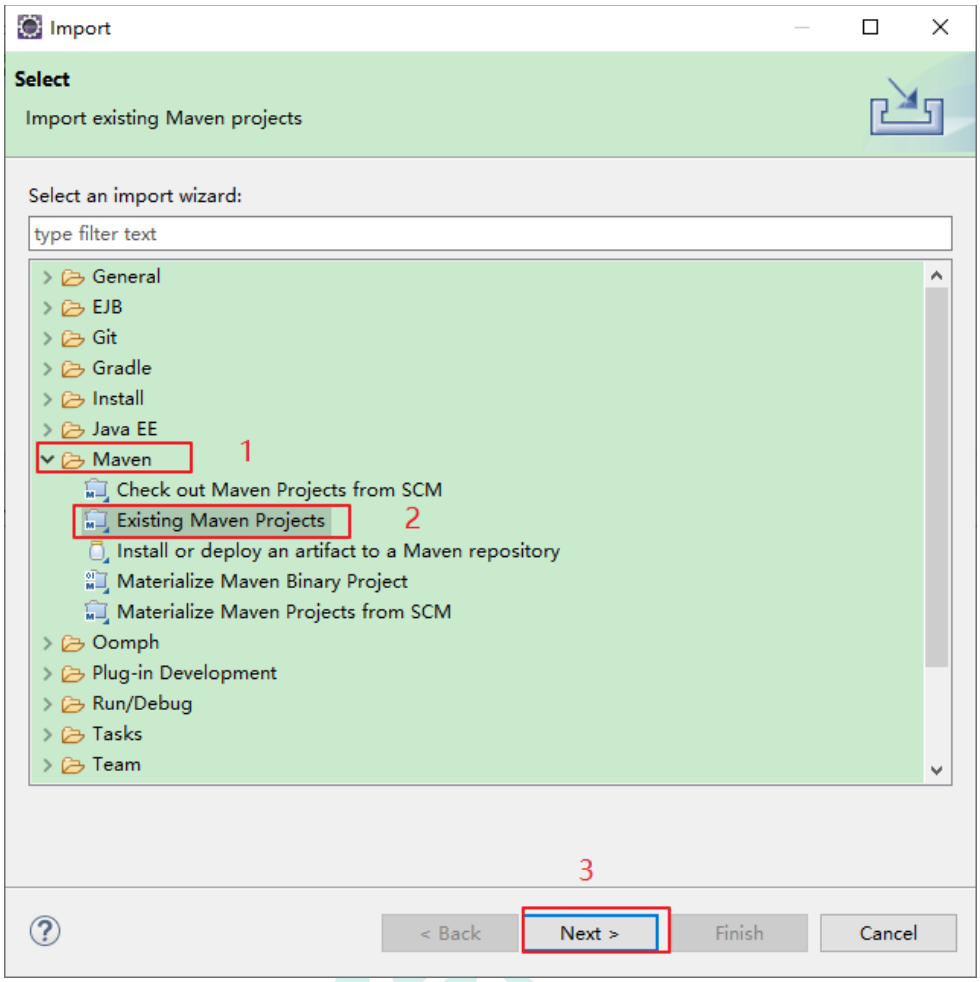


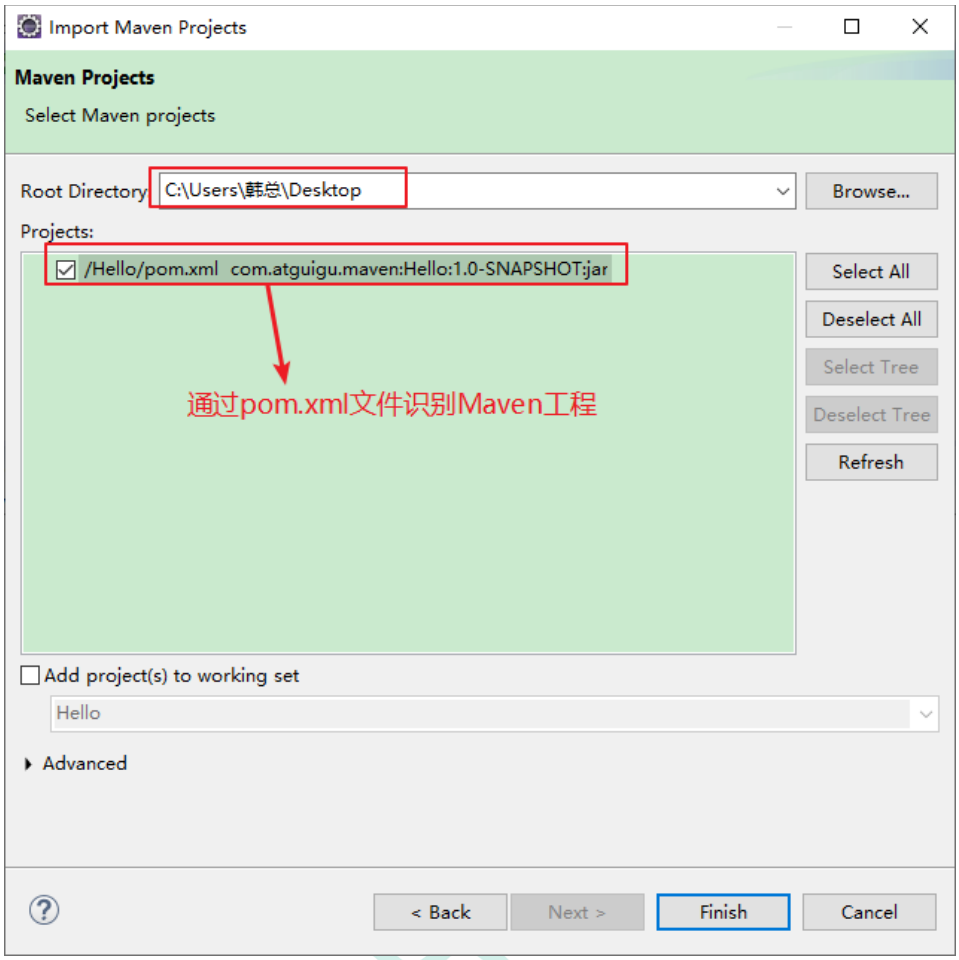

2) 第一次导入手动创建的 Maven 项目时，由于项目中没有 Eclipse 生成的一些文件，使用**方式一**导入时 Eclipse 认为它不是一个工程



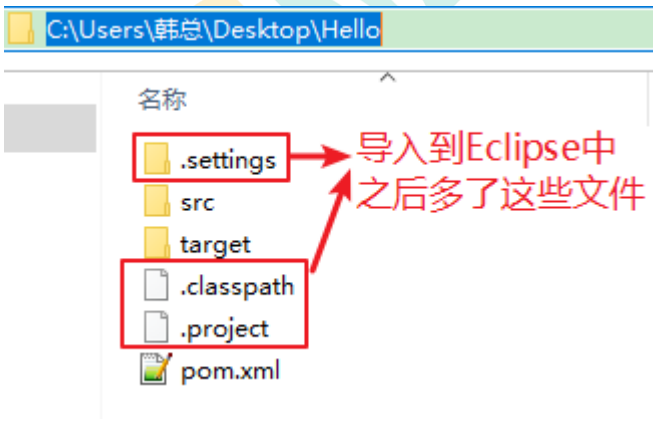



3) 所以必须通过方式二导入到 Eclipse 中


Import
Select
Import existing Maven projects
Select an import wizard:
type filter text
General
EJB
Git
Gradle
Install
Java EE
Maven
1
Check out Maven Projects from SCM
Existing Maven Projects
2
Install or deploy an artifact to a Maven repository
Materialize Maven Binary Project
Materialize Maven Projects from SCM
Oomph
Plug-in Development
Run/Debug
Tasks
Team
3
< Back
Next >
Finish
Cancel




4) 导入到 Eclipse 中之后就会生成一些 Eclipse 能识别的文件




5) 有了这些 Eclipse 能识别的文件之后以后再往 Eclipse 中导入的时候选择方式一和方式二都可以

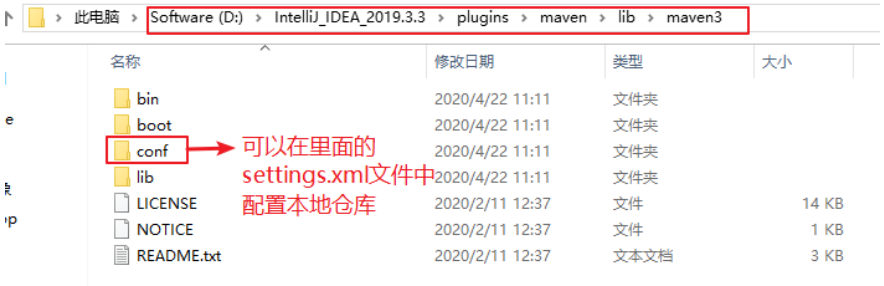
# 第 2 章 在 Idea 中使用 Maven

## 2.1 在 Idea 中配置 Maven

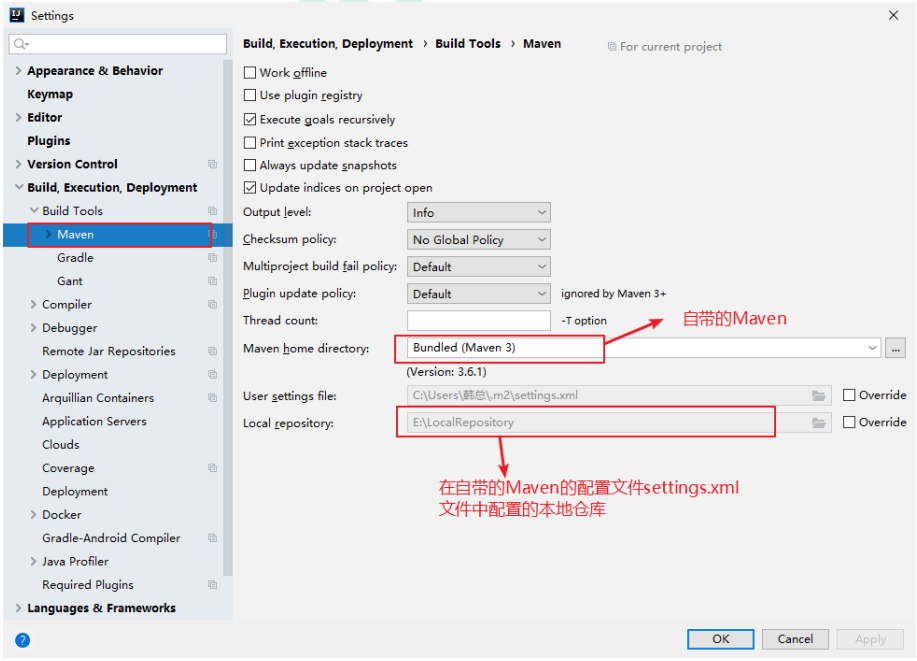
Idea 中也自带 Maven 插件，而且我们也可以给自带的 Maven 插件进行配置，所以我们可以使用自带的 Maven，也可以使用我们安装的 Maven 核心程序

### 2.1.1 配置自带的 Maven 插件

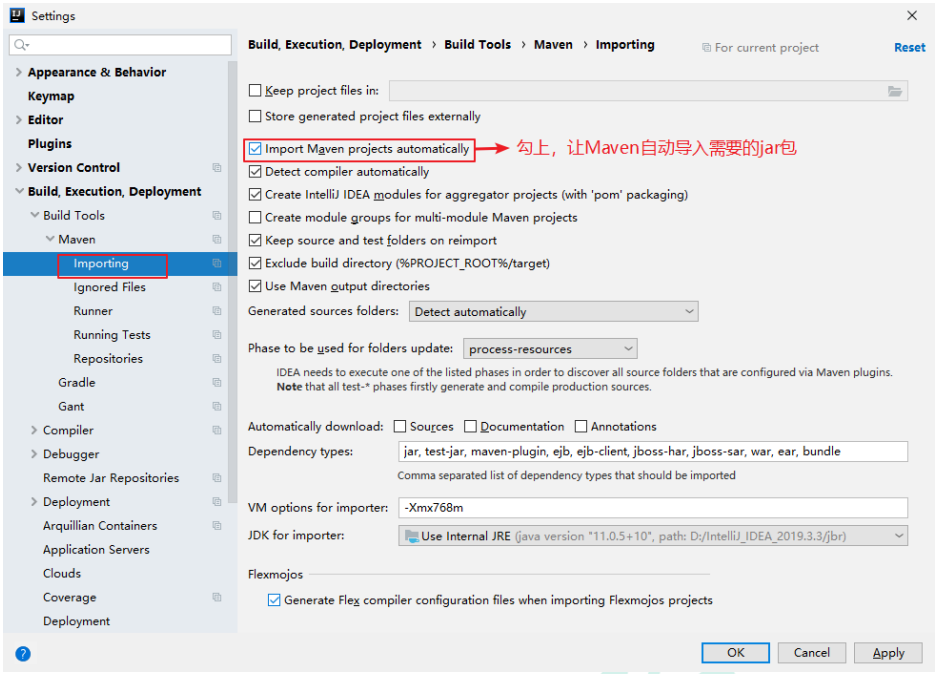
1) Idea 自带的 Maven 在 Idea 的安装目录的 plugins 目录中




2) 在自带的 Maven 里配置了本地仓库之后打开 Idea 之后会发现本地仓库自动变成了我们设置的仓库

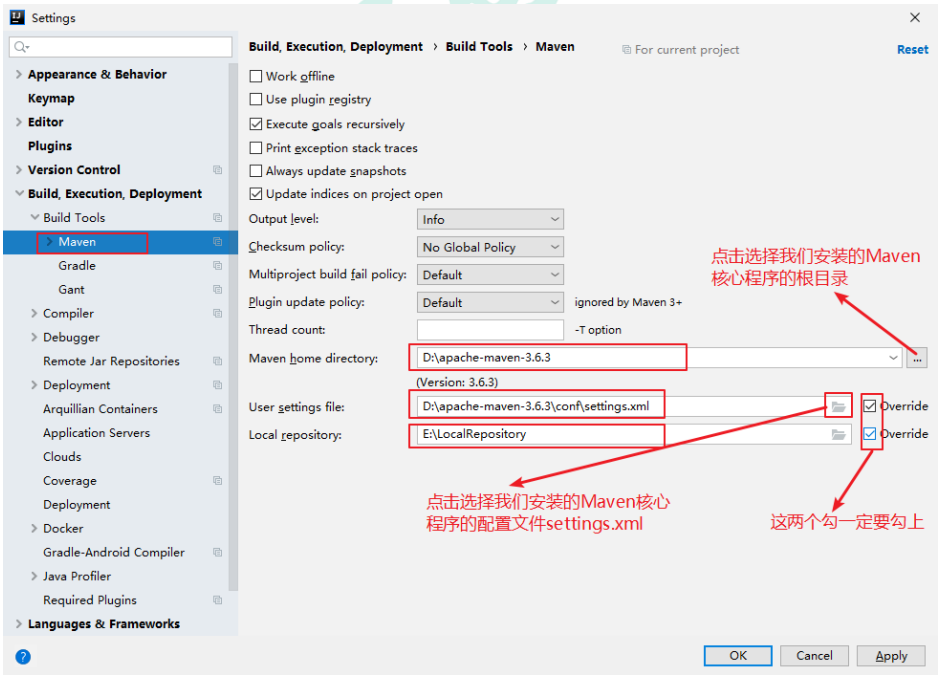



3) 设置 Maven 自动导包




## 2.1.2 配置我们自己安装的 Maven

1) 点击工具栏中的 Settings

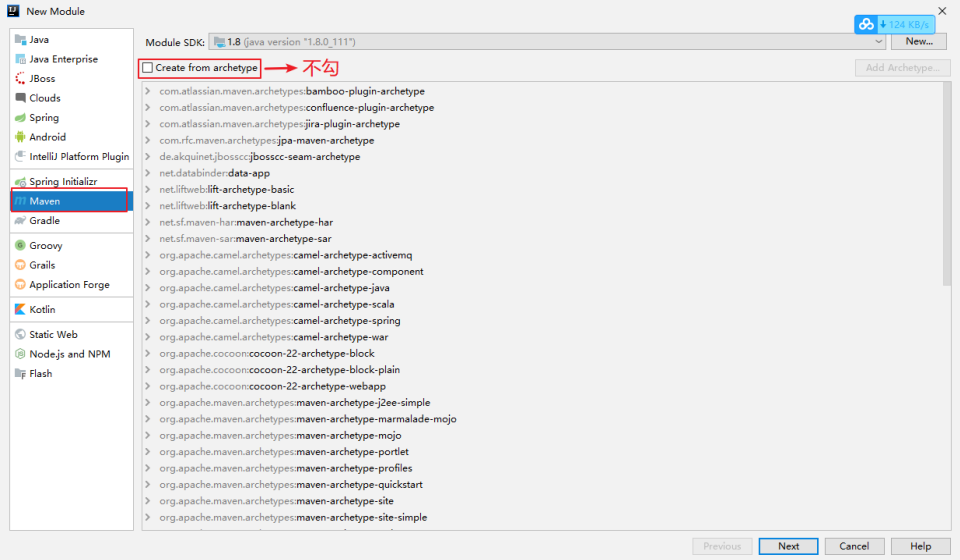



2) 点击 OK 保存即可

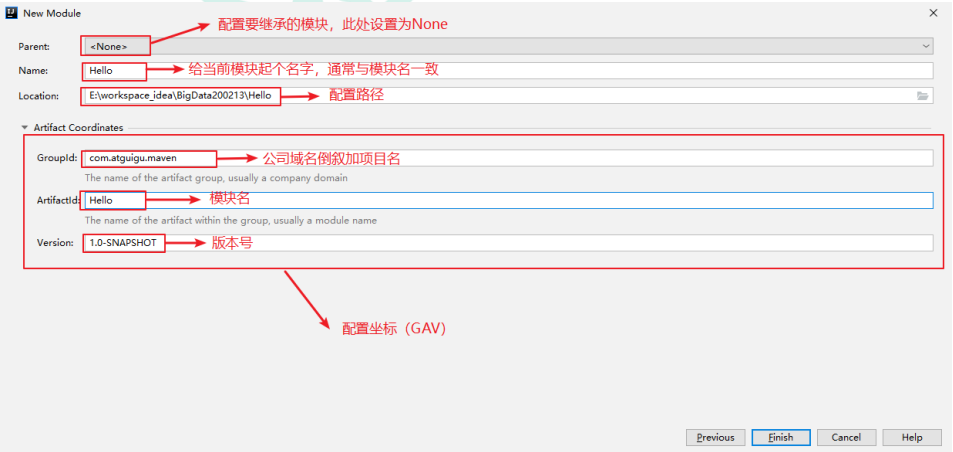
# 2.2 在 Idea 中创建 Maven 项目

## 2.2.1 创建 Java 工程

1) 点击 File→New→Module…（如果之前没有 Project 选 Project）→Maven




2) 点击 Next，配置要继承的模块（如果直接创建的是 Project 不存在这一项）、坐标（GAV）、路径。不同的 Idea 版本可能有所差别，我使用的是 2019.3.3 的版本




3) 点击 Finish 即可创建成功

4) 配置 Maven 的核心配置文件 pom.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>
```

```
    <groupId>com.atguigu.maven</groupId>
    <artifactId>Hello</artifactId>
    <version>1.0-SNAPSHOT</version>

    <dependencies>
        <dependency>
            <groupId>junit</groupId>
            <artifactId>junit</artifactId>
            <version>4.12</version>
            <scope>test</scope>
        </dependency>
    </dependencies>

</project>
```

5) 编写主代码

在 src/**main**/java 目录下创建包并创建 Hello.java 文件

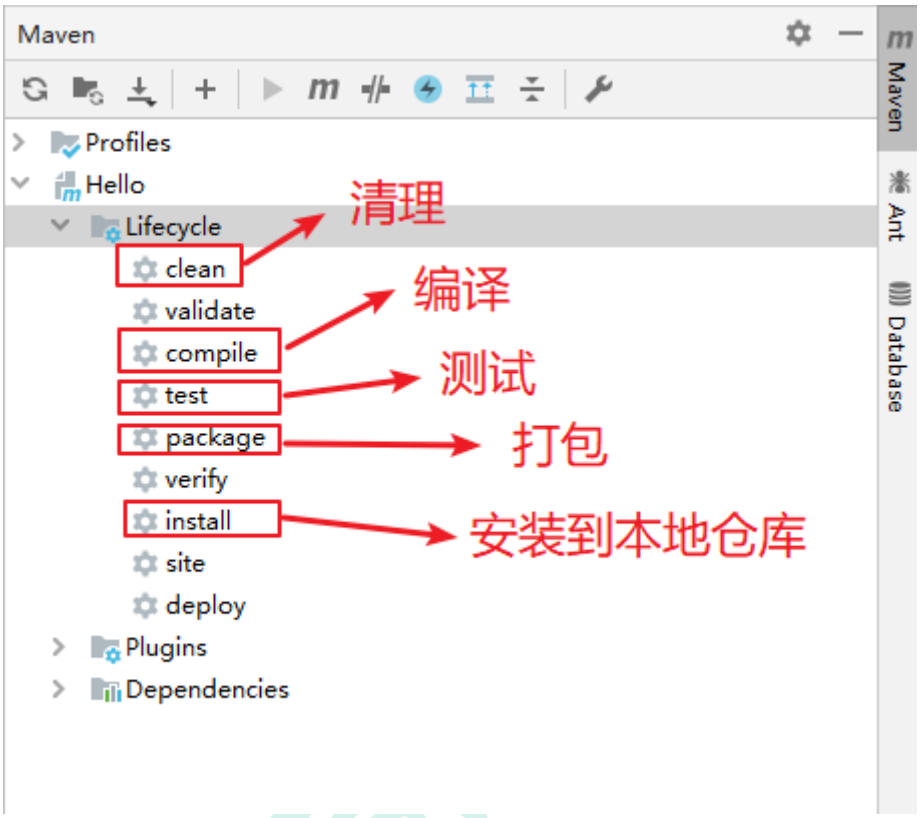
```
package com.atguigu.maven;

public class Hello {
    public String sayHello(String name){
        return "Hello "+name+"!";
    }
}
```

6) 编写测试代码

在/src/**test**/java 目录下创建包并创建 HelloTest.java 文件

```
package com.atguigu.maven;

import org.junit.Test;

public class HelloTest {

    @Test
    public void testHello(){
        Hello hello = new Hello();
        String maven = hello.sayHello("Maven");
        System.out.println(maven);
    }
}
```

7) 使用 Maven 的方式运行 Maven 工程

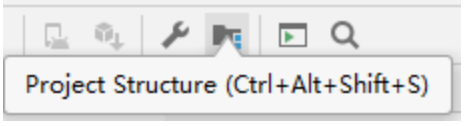



## 2.2.2 创建 Web 工程（了解）

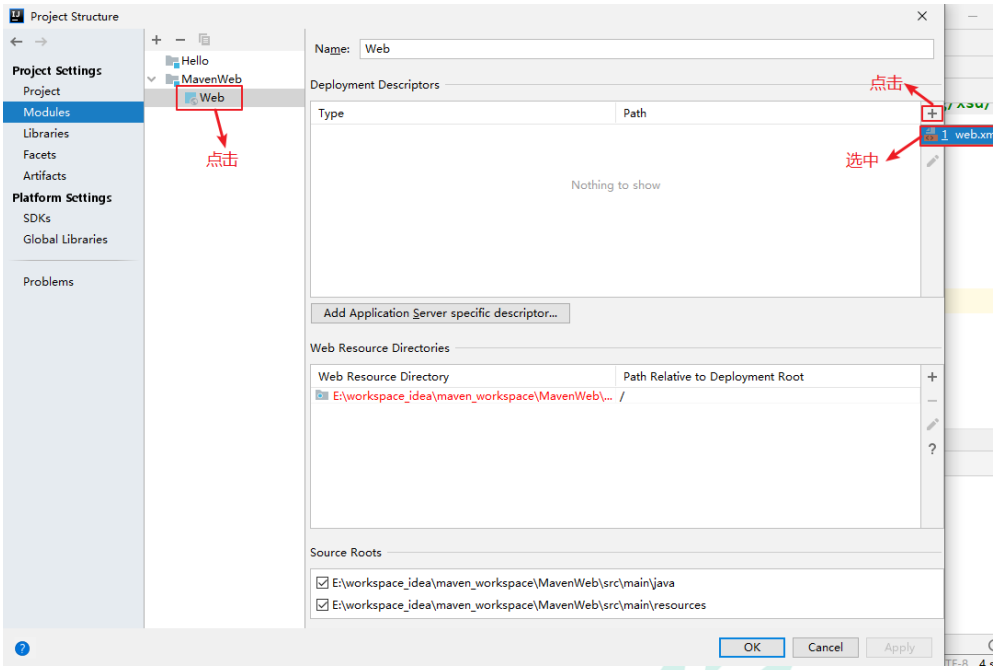
1) 创建简单的 Maven 工程，打包方式为 war 包

```
<groupId>com.atguigu.maven</groupId>
<artifactId>MavenWeb</artifactId>
<packaging>war</packaging>
<version>1.0-SNAPSHOT</version>
```

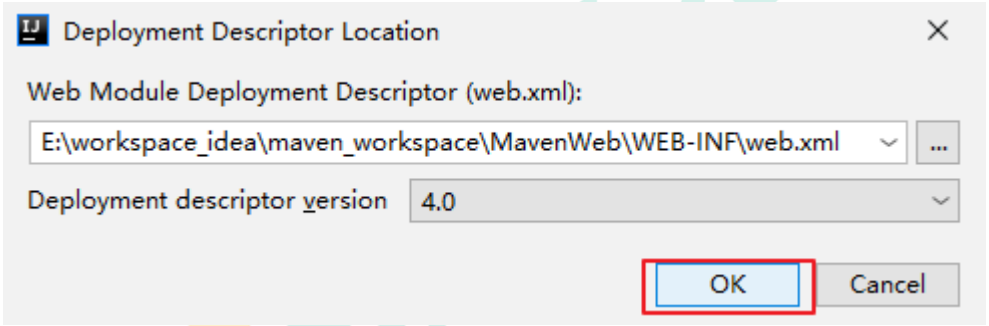
2) 点击 Project Structure



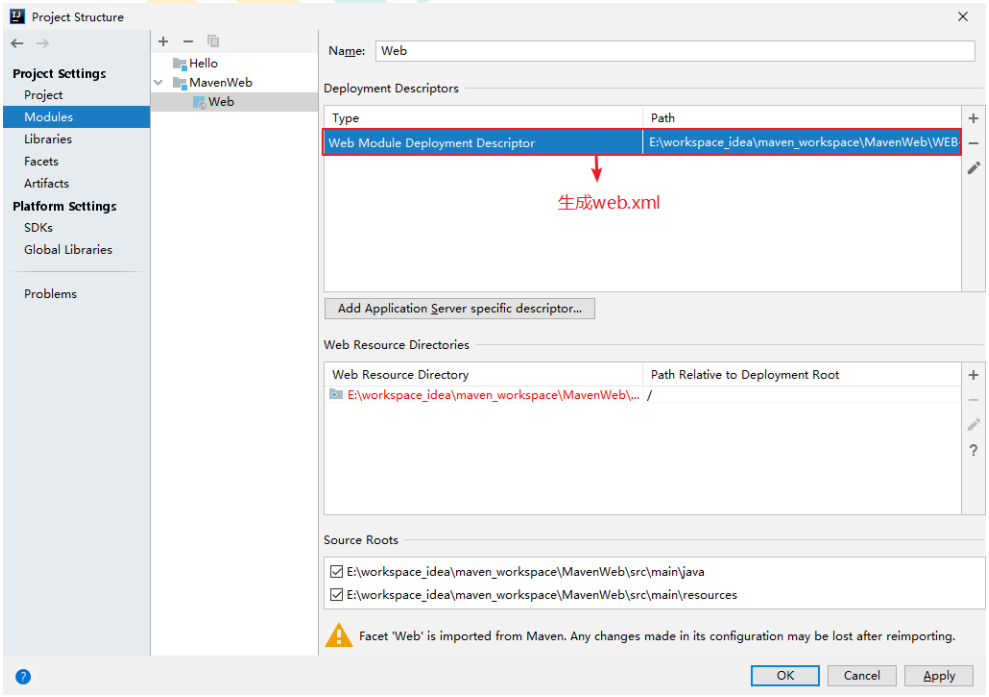

3) 选择对应的 Module，设置 Web 目录



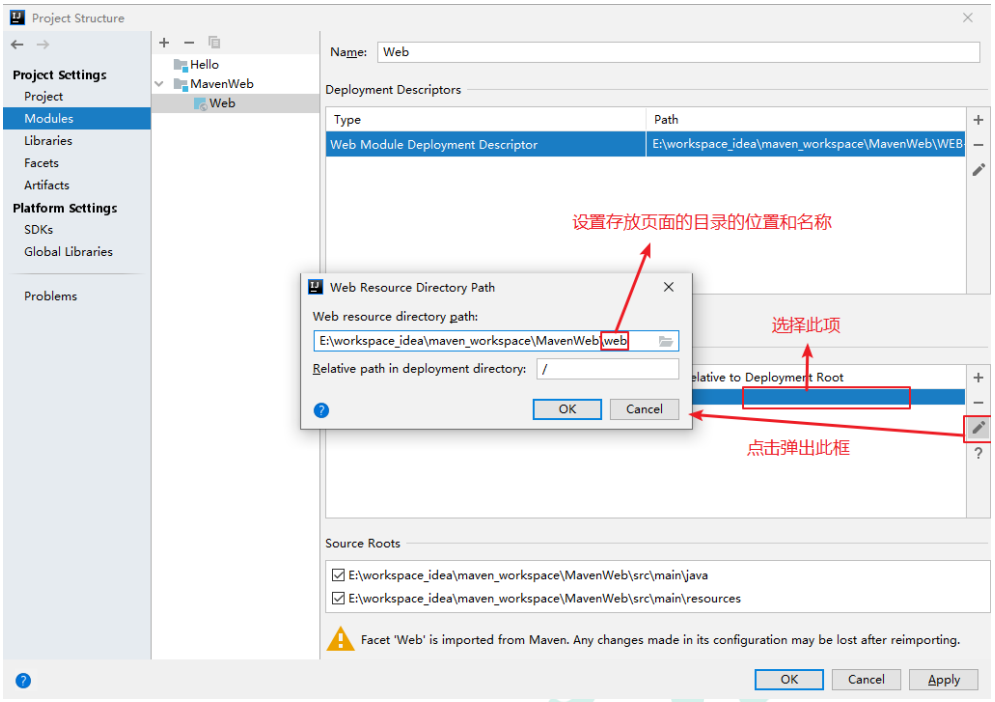

4) 弹出提示框，选择版本后点击 OK



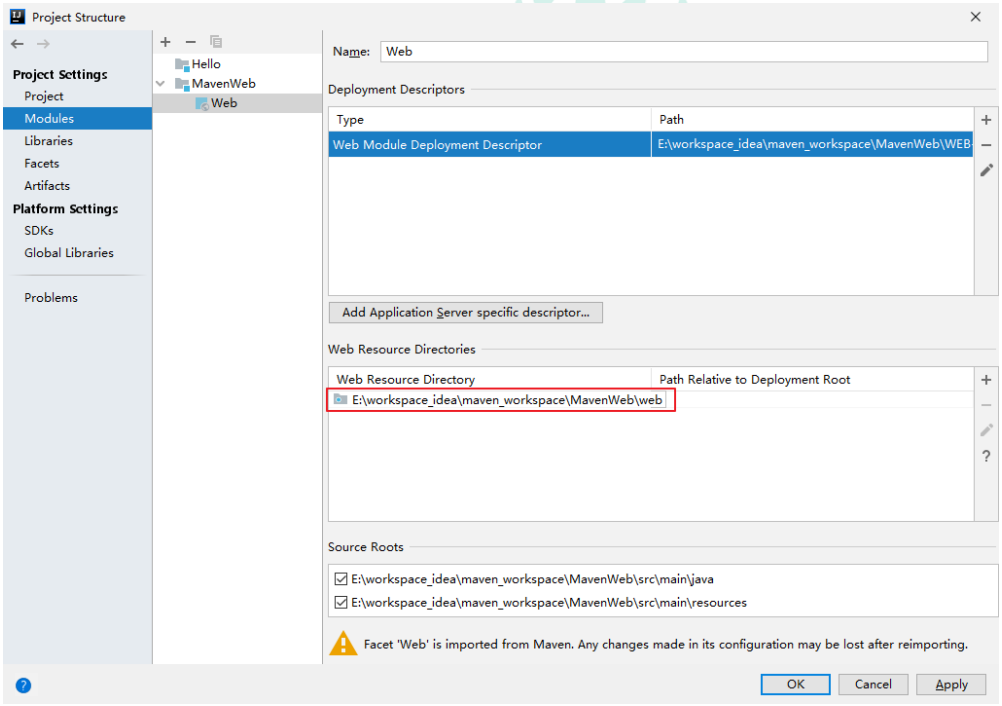

5) 生成 web.xml 文件



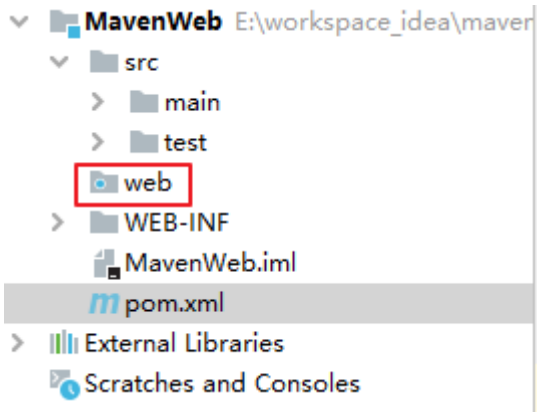
6) 设置存放 web 页面文件的目录后点击 OK



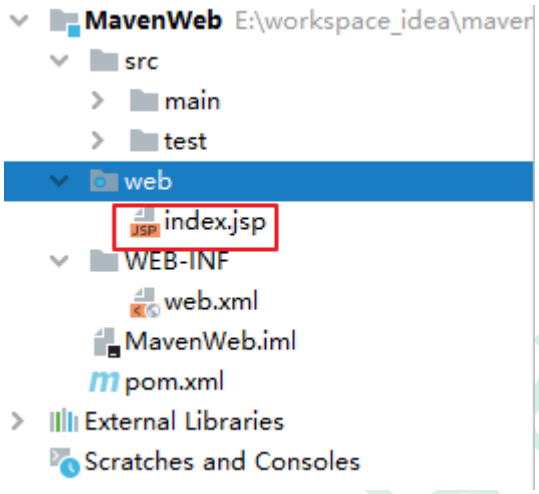

7) 点击 OK




8) 发现项目中多了一个 web 目录，而且目录上有一个蓝点



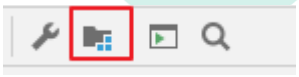

9) 在 web 目录下创建 index.jsp 页面



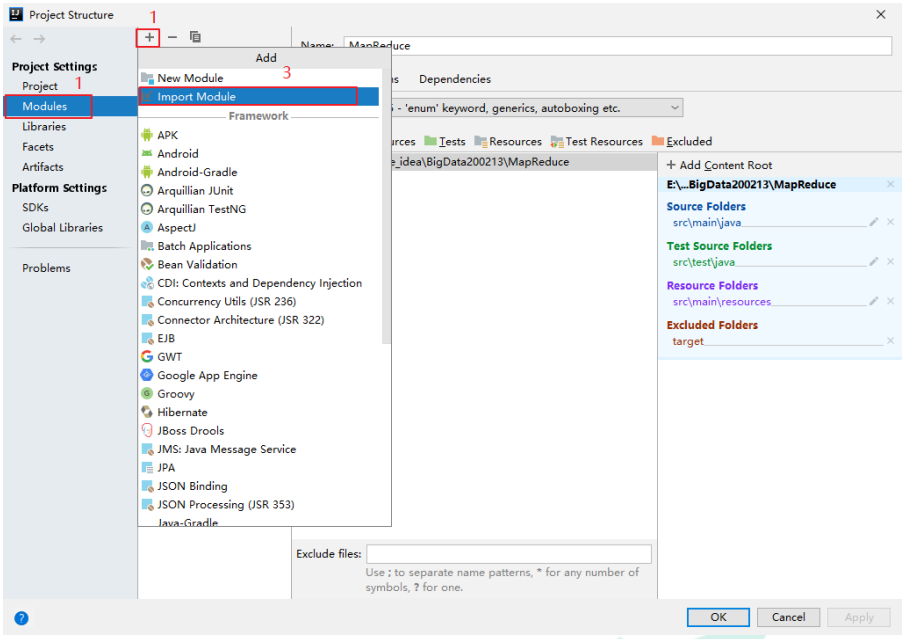

10) 部署到 Tomcat 上运行

## 2.3 在 Idea 中导入 Maven 项目

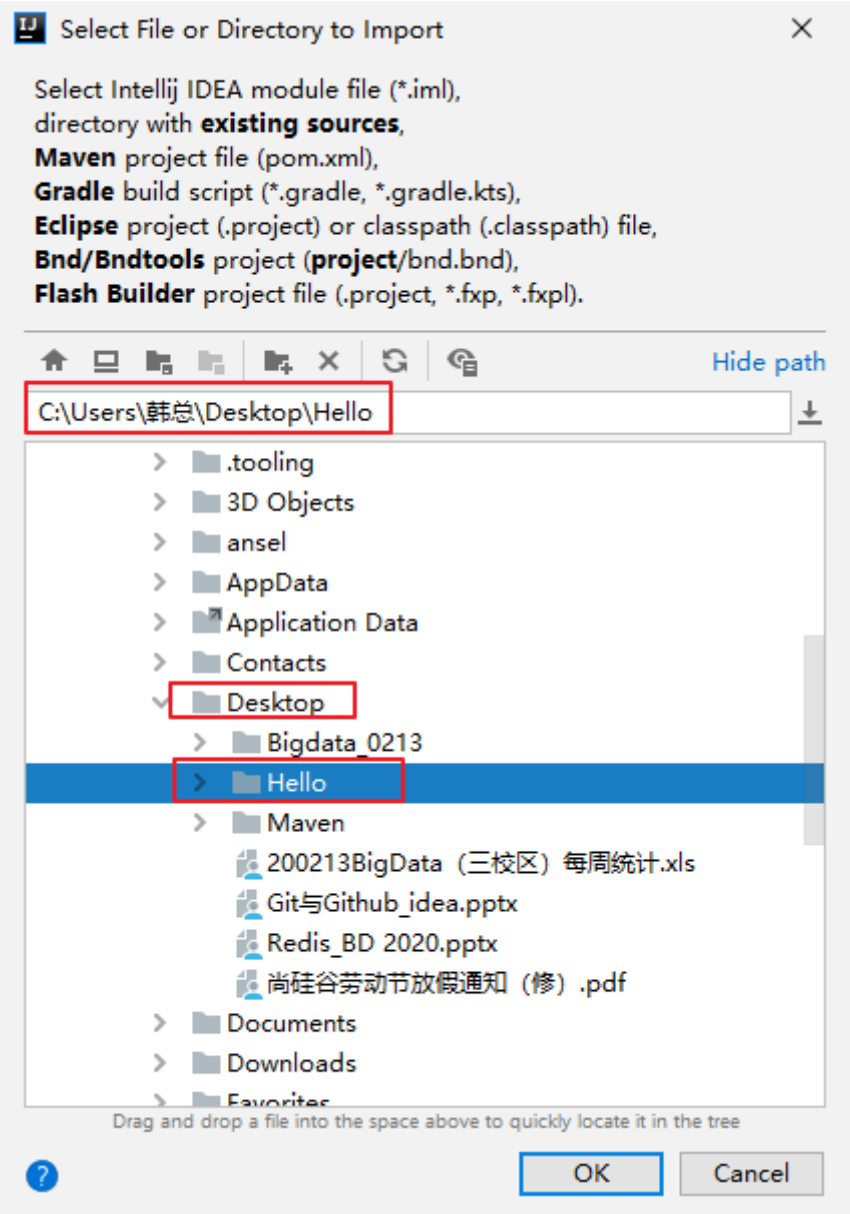
1) 点击 Project Structure



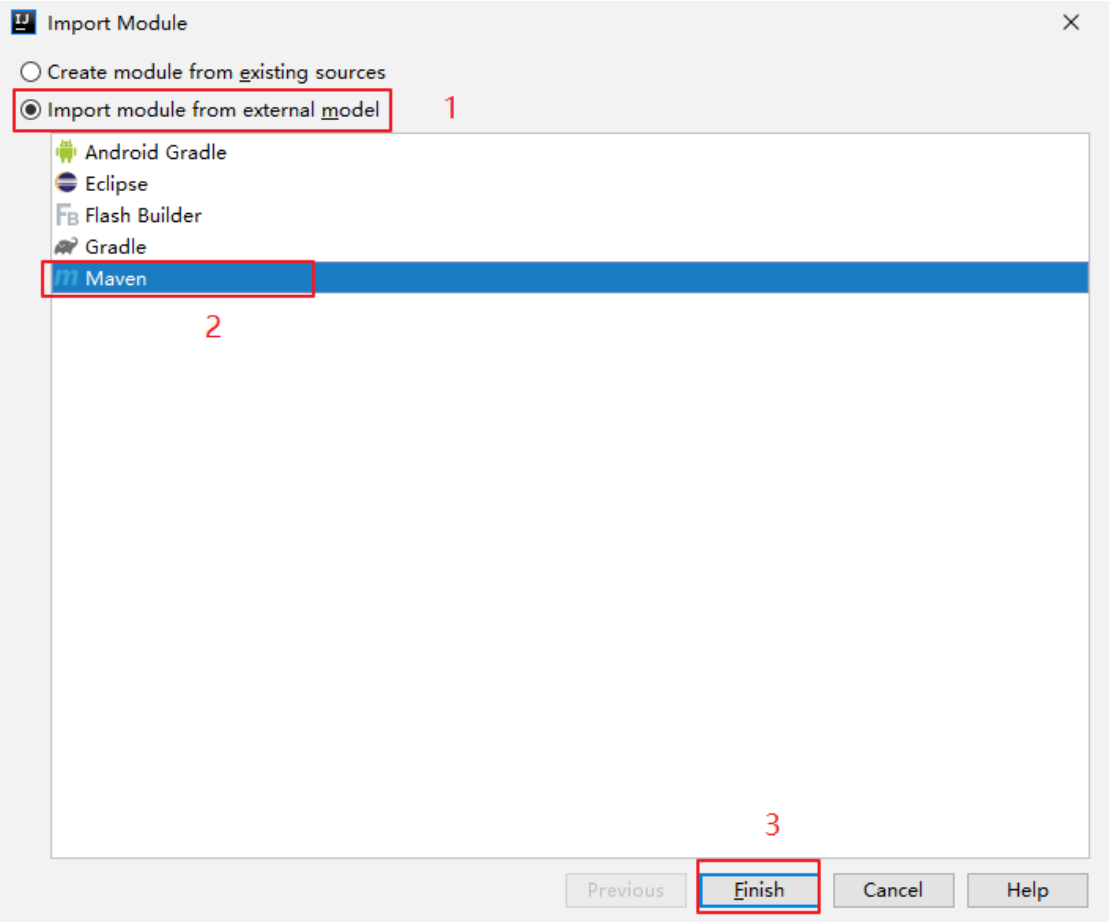
2) 点击 Modules→＋→Import Module


Project Structure
Project Settings
Project
Modules
Libraries
Facets
Artifacts
Platform Settings
SDKs
Global Libraries
Problems
Add
New Module
Import Module
Framework
APK
Android
Android-Gradle
Arquillian JUnit
Arquillian TestNG
AspectJ
Batch Applications
Bean Validation
CDI: Contexts and Dependency Injection
Concurrency Utils (JSR 236)
Connector Architecture (JSR 322)
EJB
GWT
Google App Engine
Groovy
Hibernate
JBoss Drools
JMS: Java Message Service
JPA
JSON Binding
JSON Processing (JSR 353)
Dependencies
Tests
Resources
Test Resources
Excluded
Add Content Root
Source Folders
src\main\java
Test Source Folders
src\test\java
Resource Folders
src\main\resources
Excluded Folders
target
Exclude files:
Use ; to separate name patterns, * for any number of symbols, ? for one.
OK
Cancel
Apply

3) 找到项目所在的位置




4) 选择 Import module from external model（从外部模型导入模块）→Maven →Finish



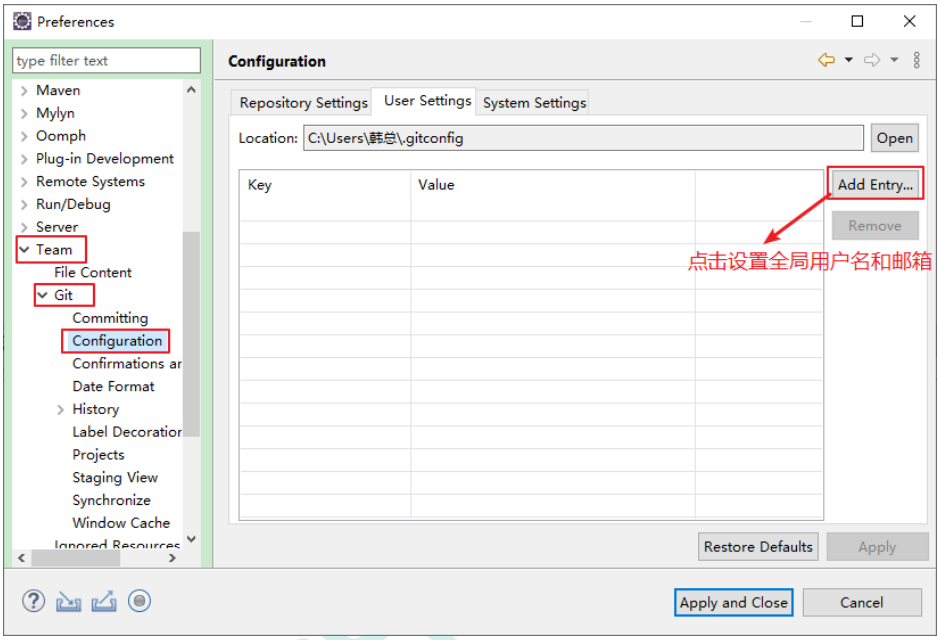

# 第 3 章 在 Eclipse 中使用 Git

Eclipse 中默认自带了 Git 插件，通过点击 Help→About Eclipse IDE 可以查看

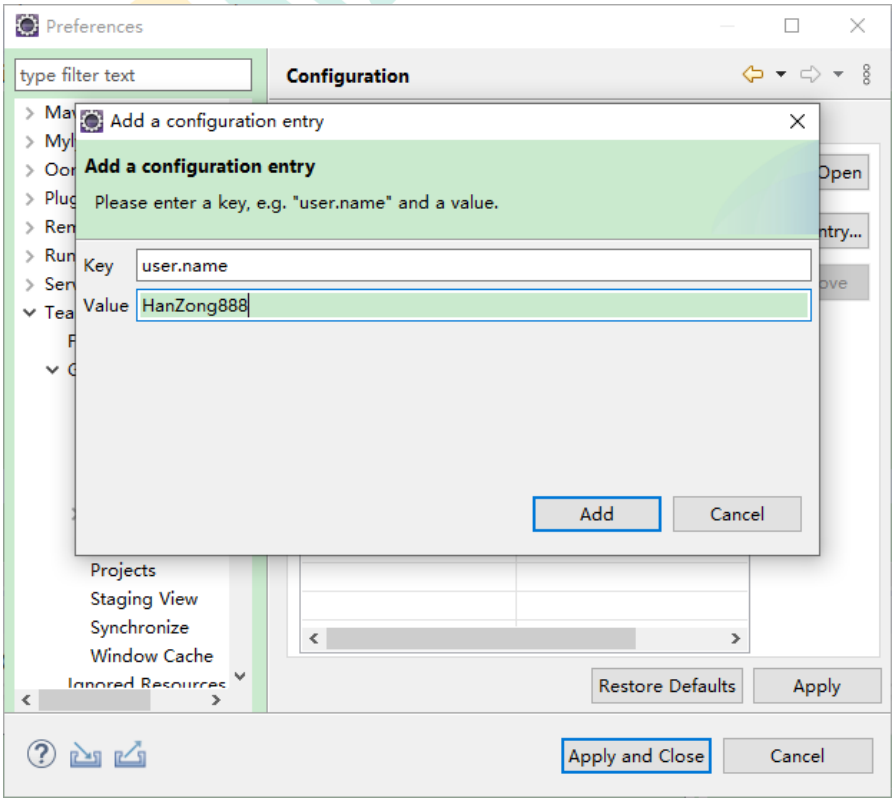
# 3.1 全局配置

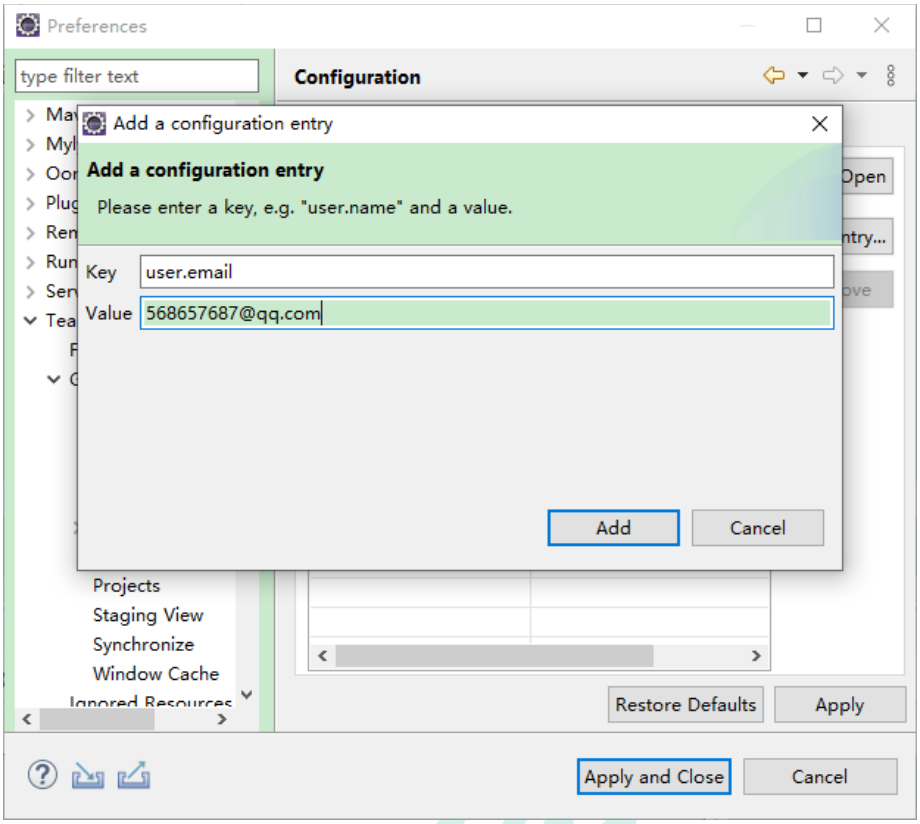
## 3.1.1 配置用户名和邮箱

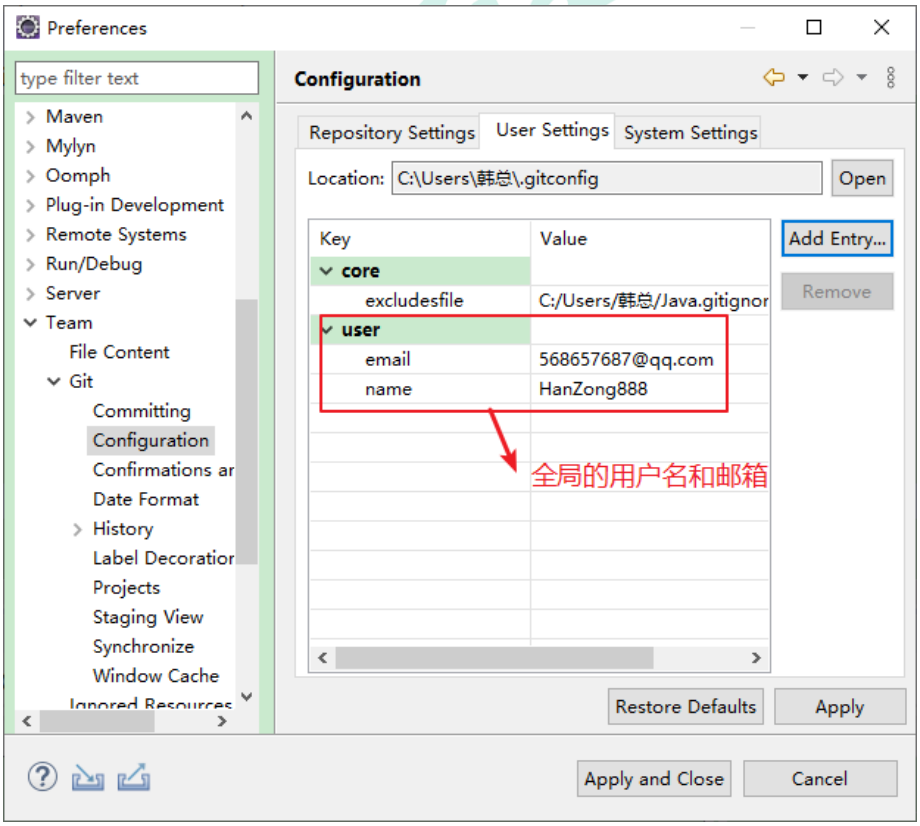
1) 点击 Window→Preferences→Team→Git→Configuration



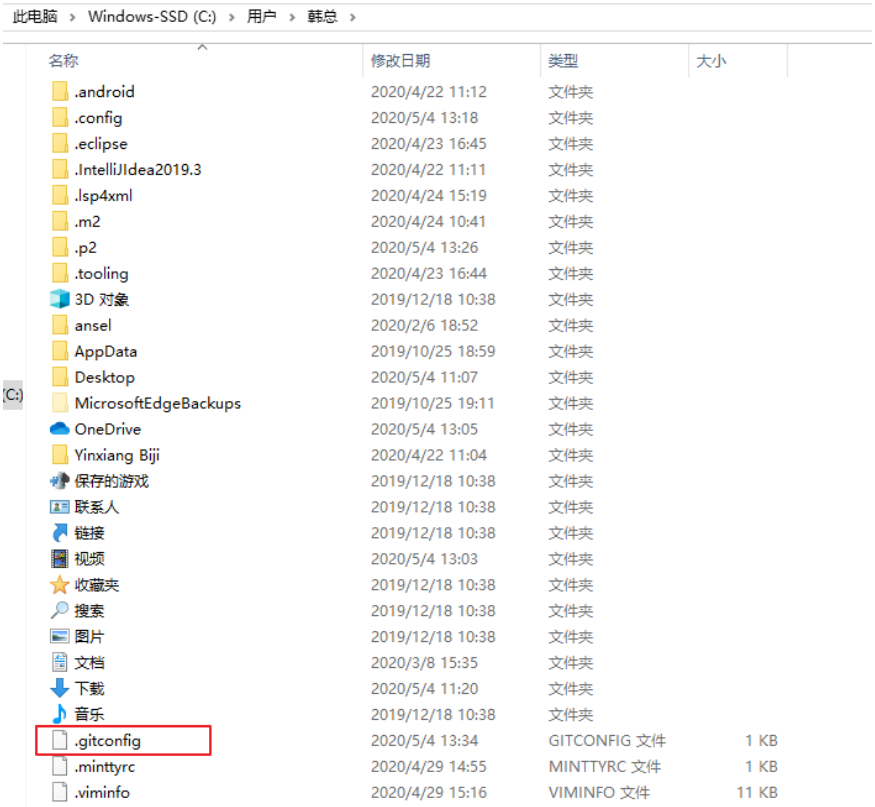

2) 点击 Add Entry...设置全局用户名和邮箱






3) 点击 Apply and Close 之后在 Windows 的用户目录下会生成.gitconfig 配置文件




### 3.1.2 配置忽略的文件

1) 在用户目录（其他目录也可以）创建 Java.gitignore 文件，添加以下内容

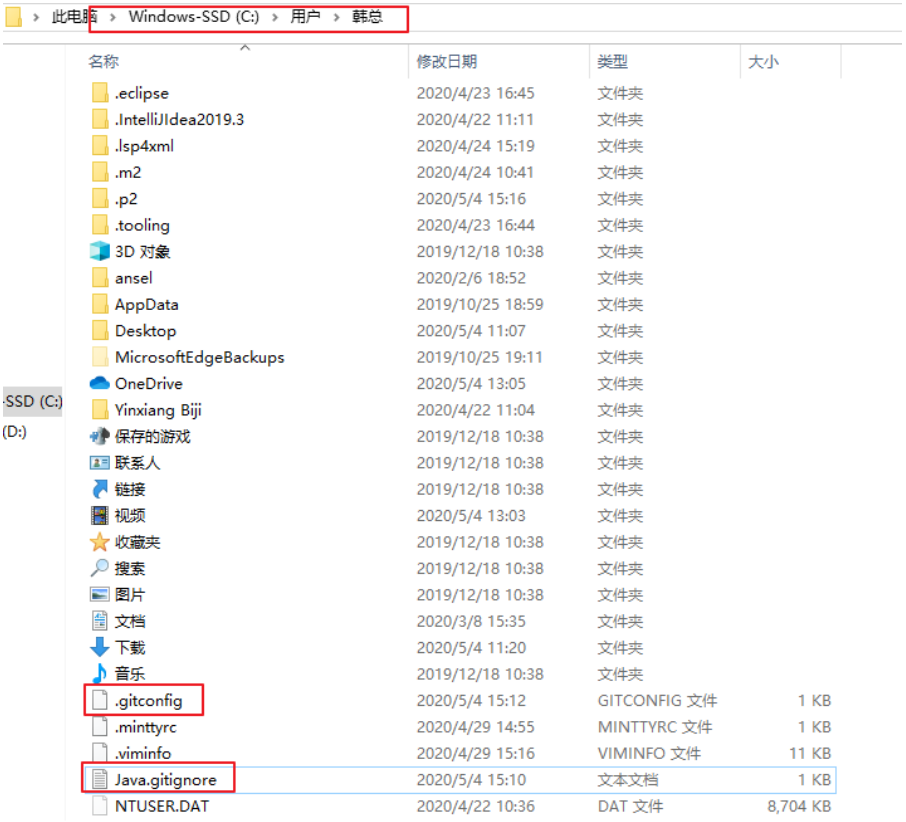
```
# Compiled class file
*.class

# Log file
*.log

# BlueJ files
*.ctxt

# Mobile Tools for Java (J2ME)
.mtj.tmp/

# Package Files #
*.jar
*.war
*.nar
*.ear
*.zip
*.tar.gz
*.rar

# virtual machine crash logs, see
http://www.java.com/en/download/help/error_hotspot.xml
hs_err_pid*
```

```
        .classpath
        .project
        .settings
target
```

2) 在全局的配置文件.gitconfig 文件中添加如下内容

```
        [core]
            excludesfile = C:/Users/韩总/Java.gitignore
```

3) 文件所在位置图

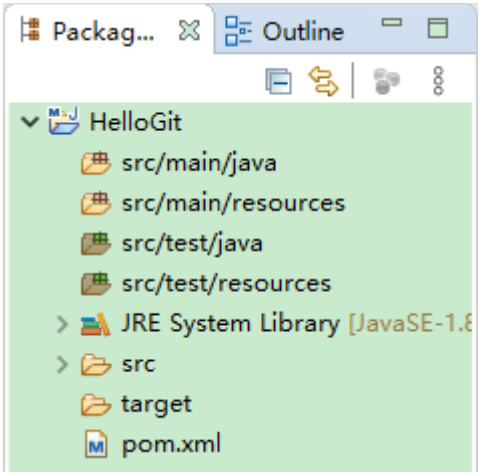



4) 重启 Eclipse 忽略文件 Java.gitignore 即生效

# 3.2 创建本地库

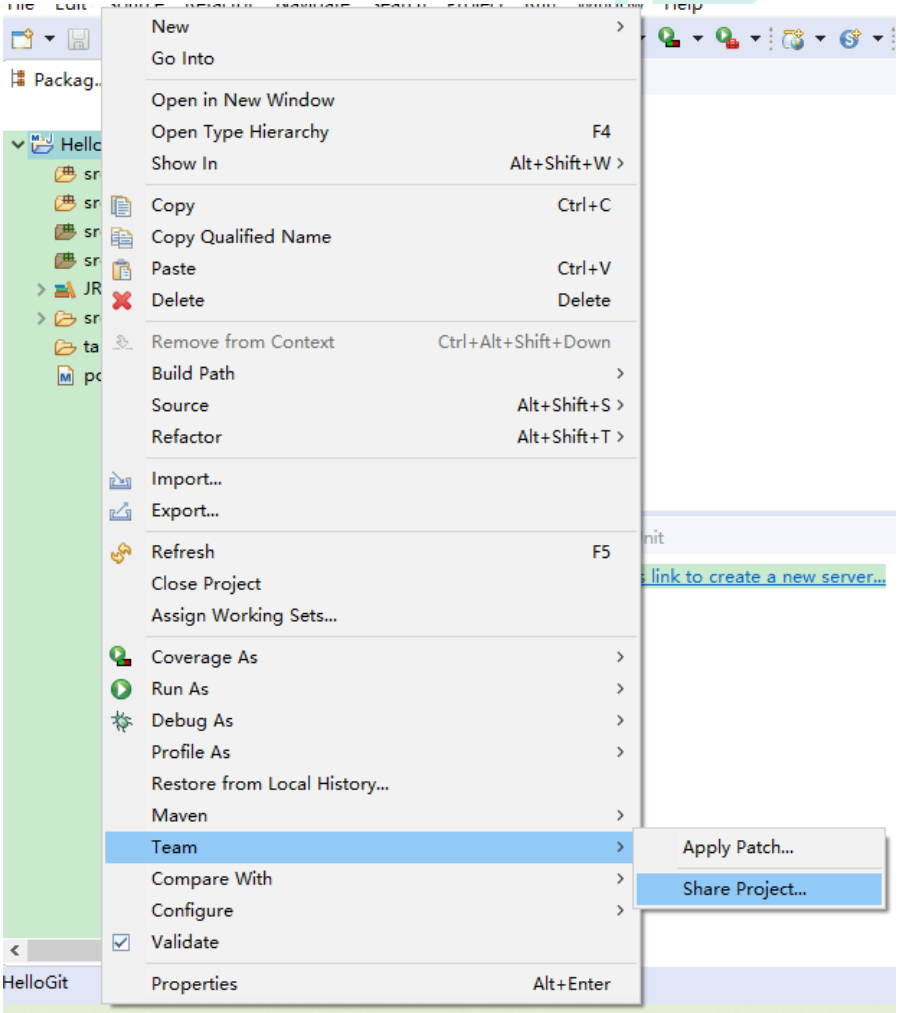
## 3.2.1 新建本地库

1) 创建一个普通的 Maven 工程

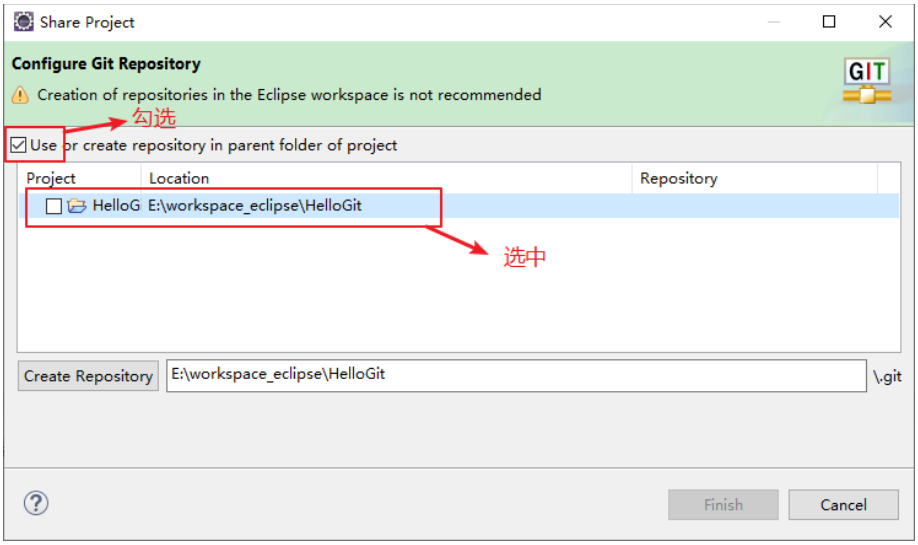



2) 将 Maven 工程交给 Git 管理，即生成.git 目录

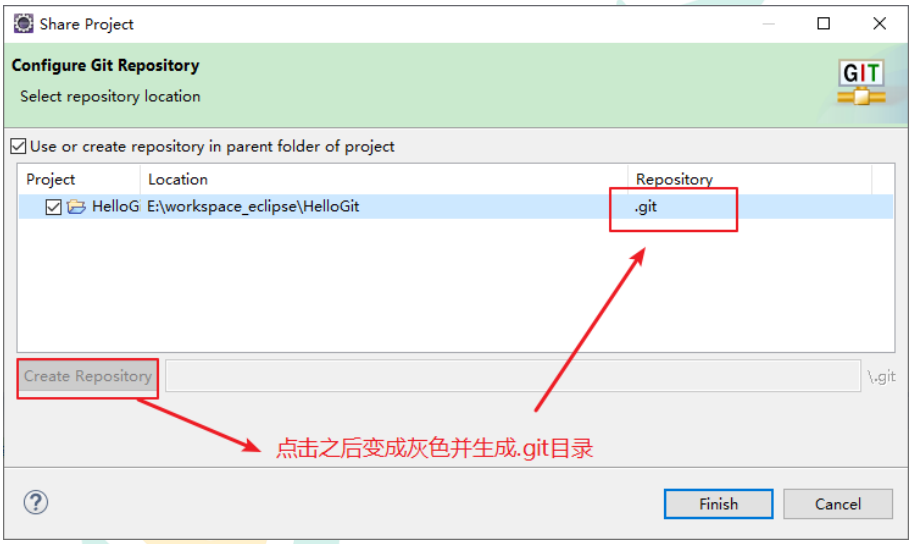
在工程上右键→Team→Share Project…



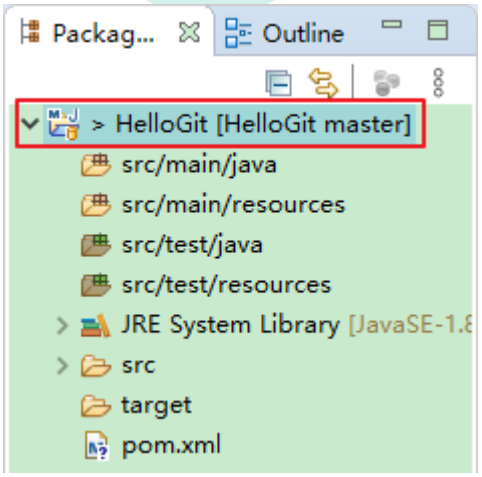

3) 勾选 Use or create repository in parent folder of project 并选中工程




4) 点击 Create Repository 按钮生成.git 目录

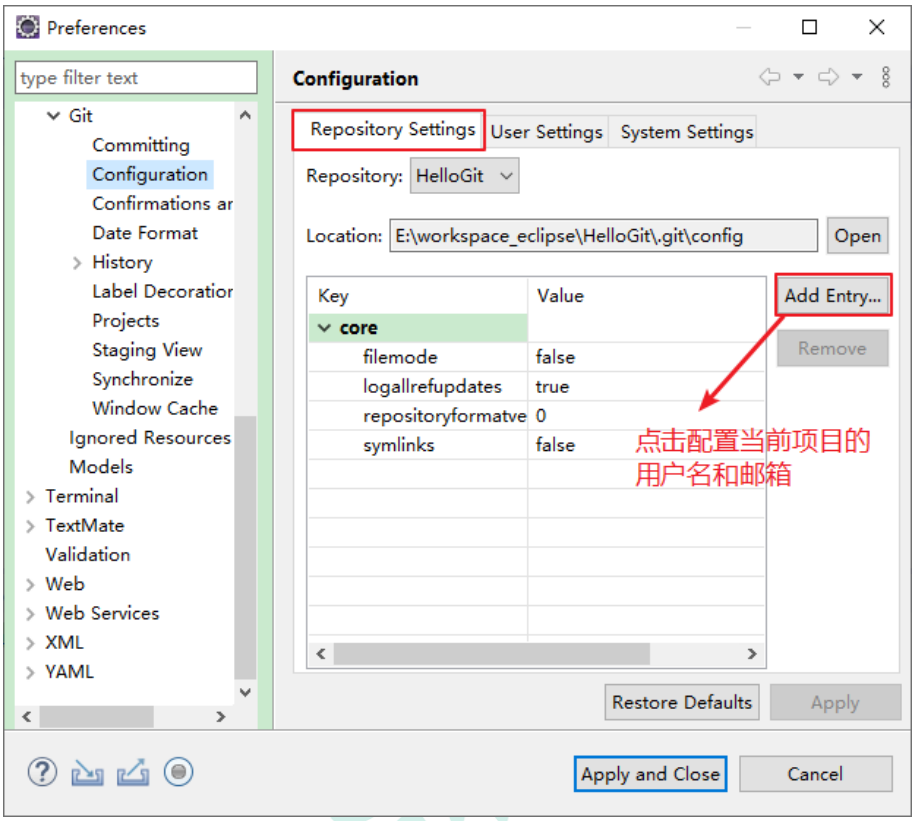



5) 点击 Finish 之后发现工程已被 Git 管理

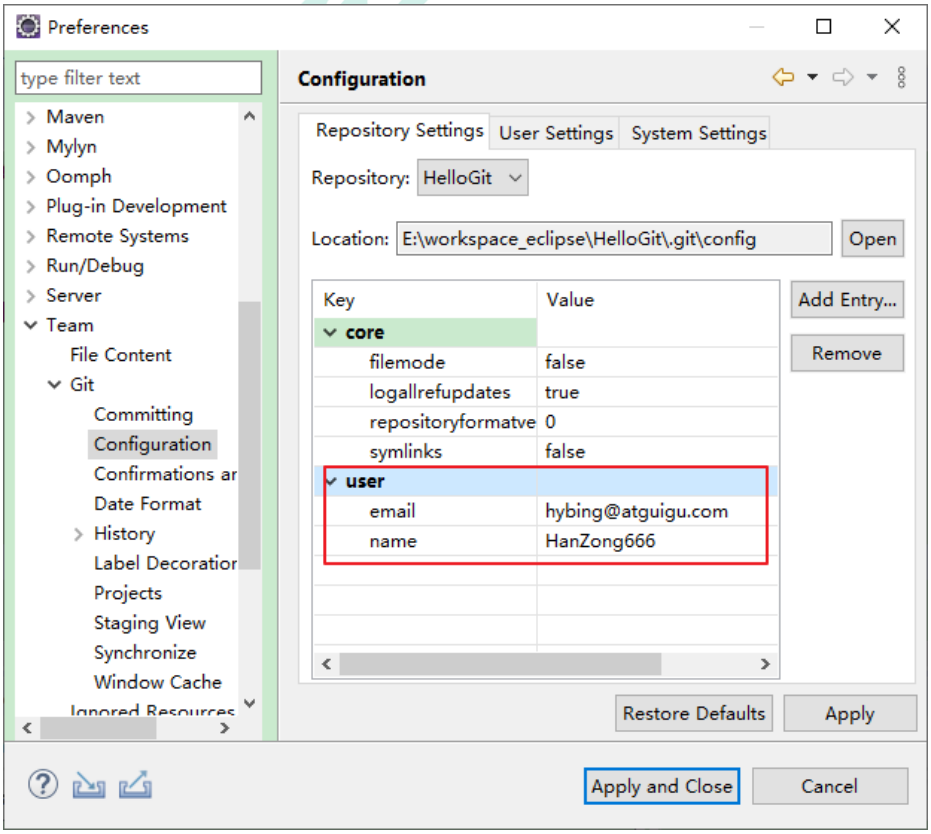



6) 可以配置当前工程的用户名和邮箱

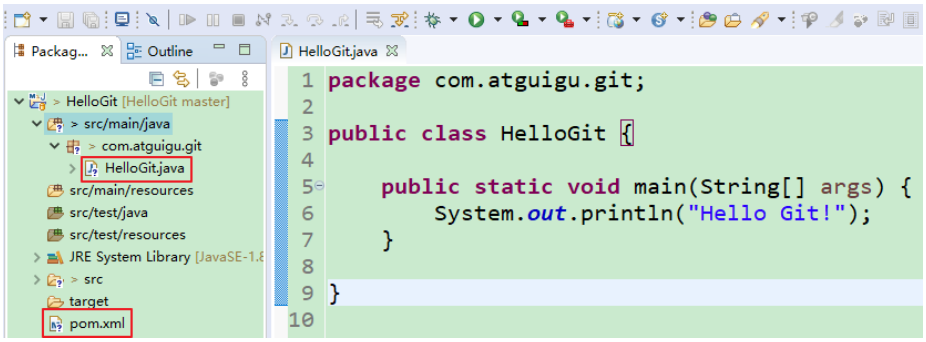
点击 Window→Preferences→Team→Git→Configuration→Repository Settings



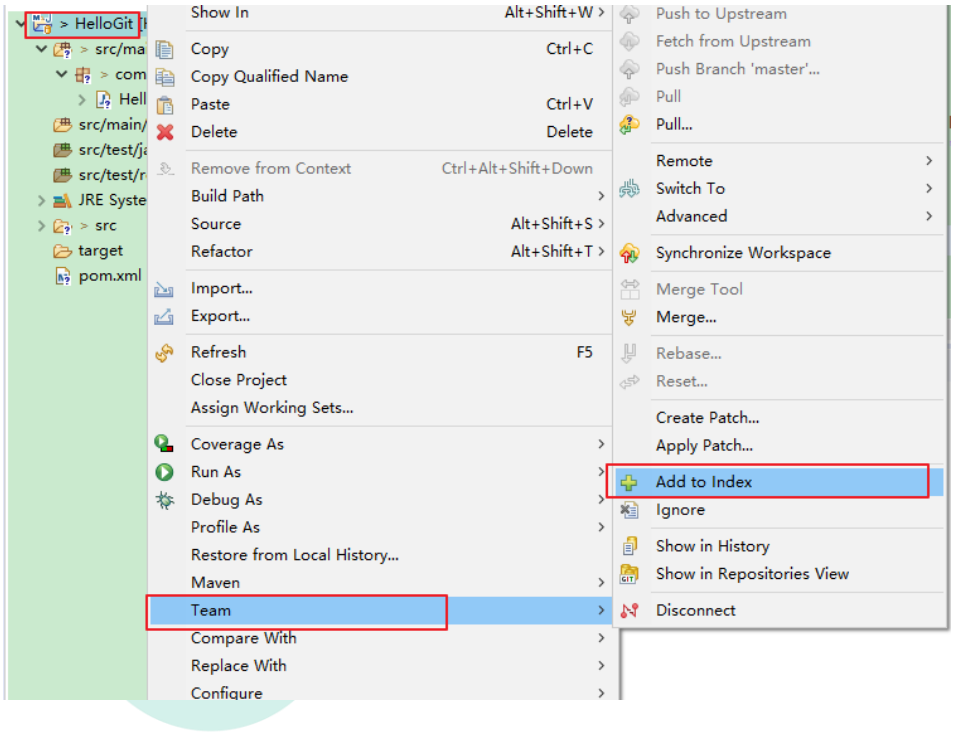

7) 点击 Add Entry...配置当前工程的用户名和邮箱



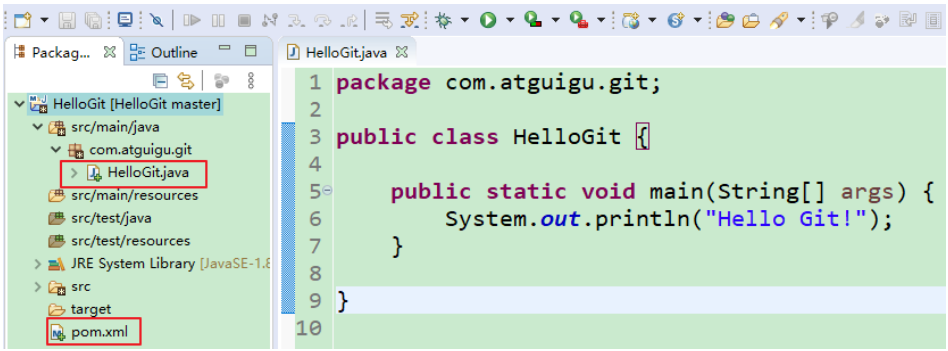
8) 在 src/main/java 目录下创建包并创建 HelloGit.java 文件，此时文件只存在于工作区，文件的状态如下图：



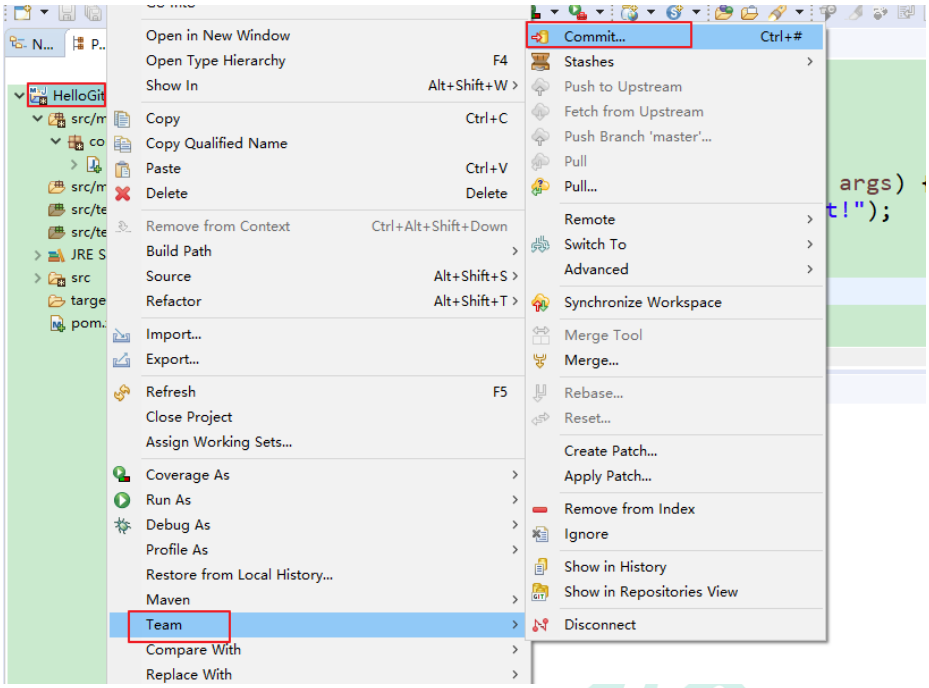

9) 在工程上右键→Team→Add to Index 将工程添加到暂存区



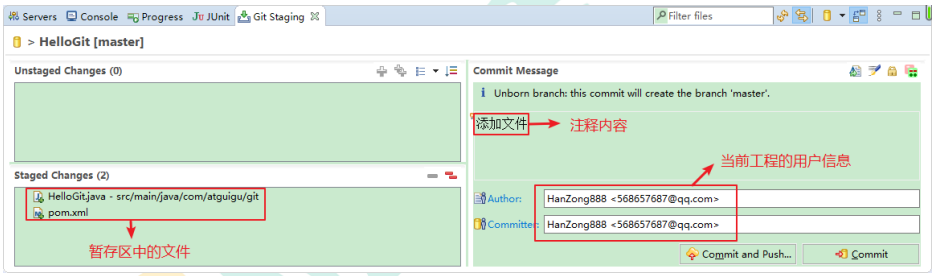

10) 添加到暂存区之后文件的状态如下图：




11) 在工程上右键→Team→Commit...将工程添加到本地库

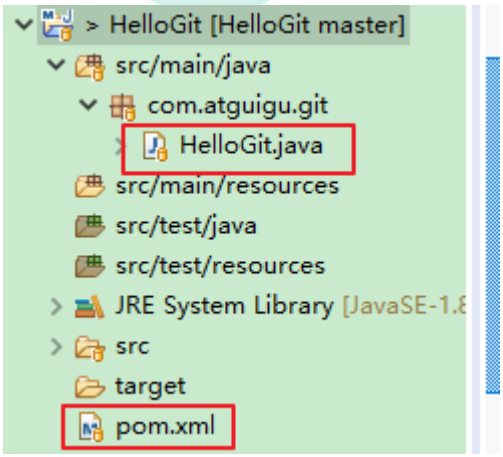



12) 添加注释后点击 Commit 将工程添加到本地库




13) 也可以直接点击 Commit and Push...添加到本地库后开始上传到项目托管的网站

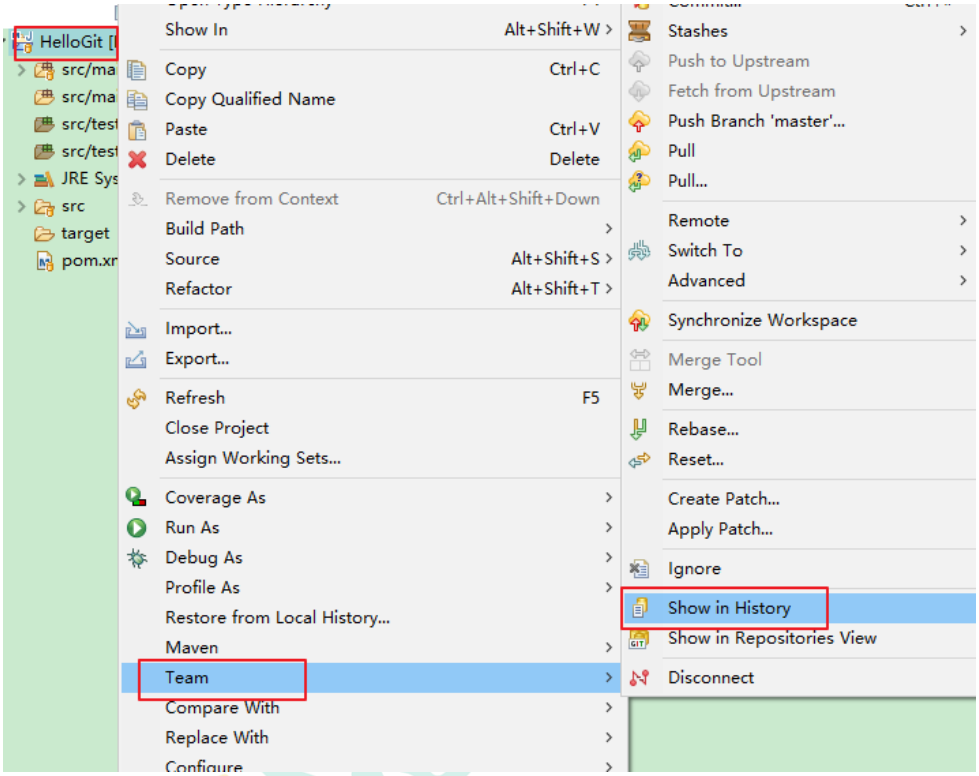
14) 工程添加到本地库之后文件的状态如下图：



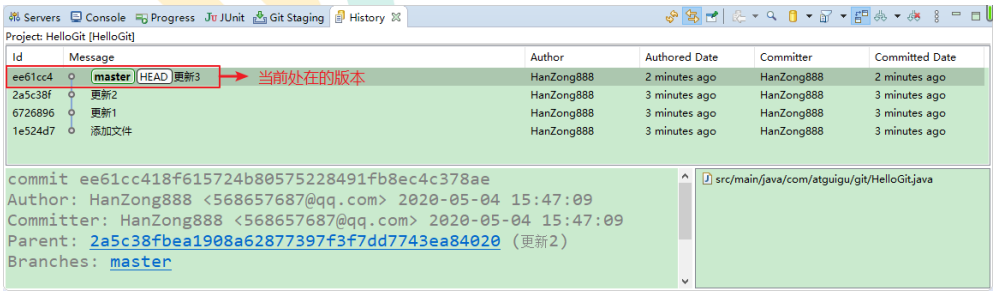
## 3.2.2 版本间切换

1) 查看历史版本

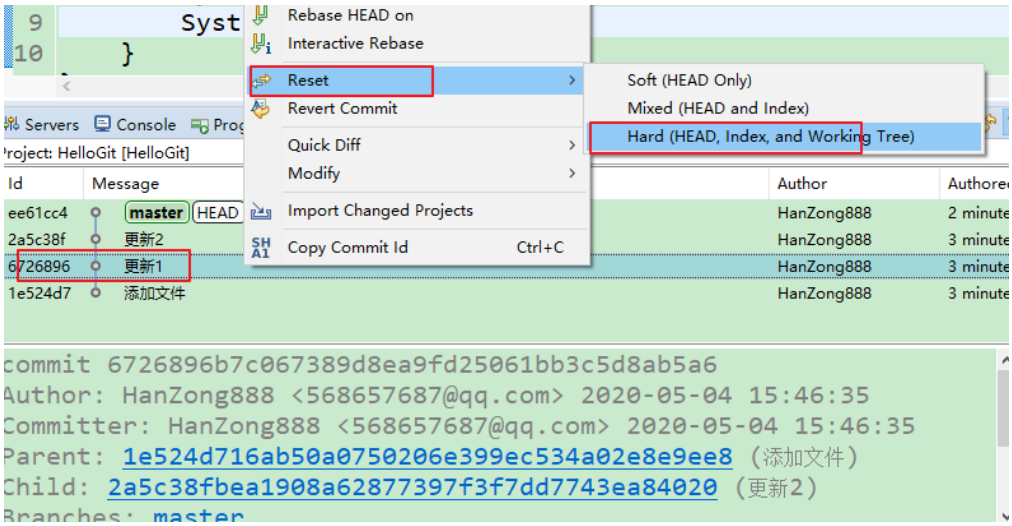
在工程上右键→Team→Show in History



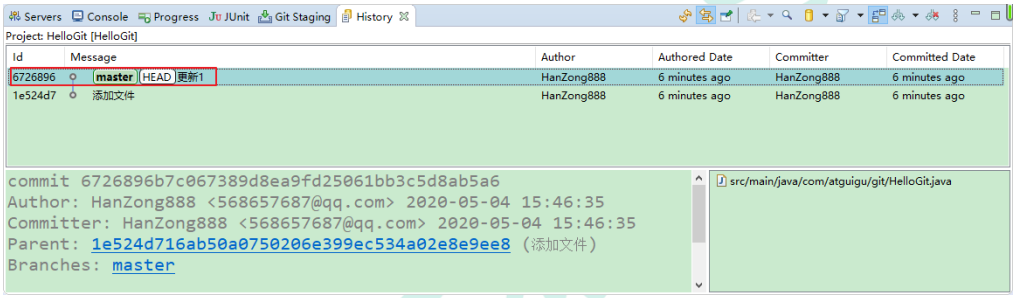

2) 当前版本




3) 在要切换的版本上右键→Reset→Hard

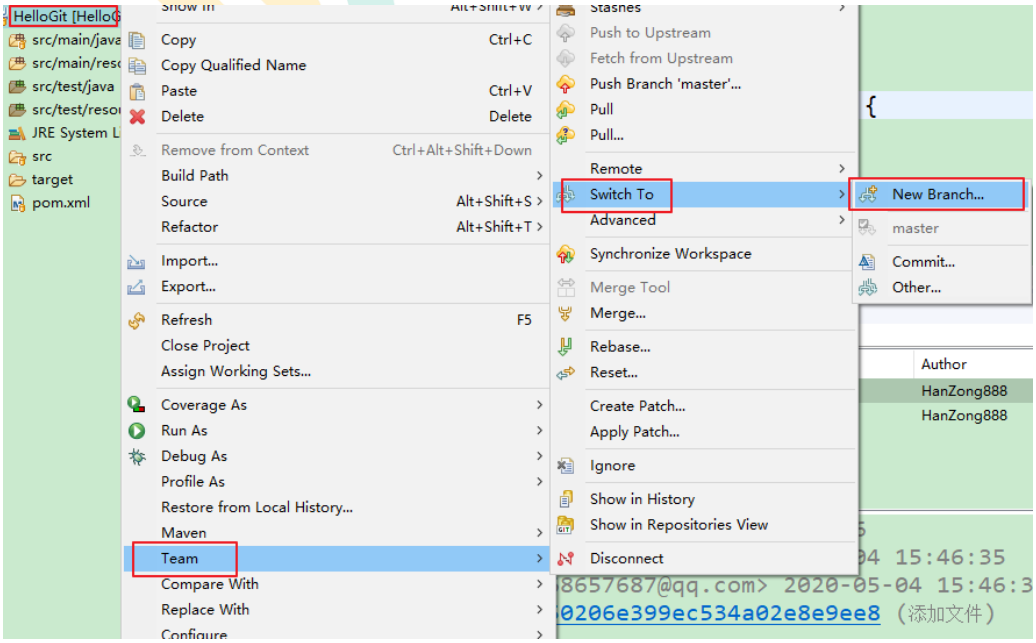



4) 切换成功

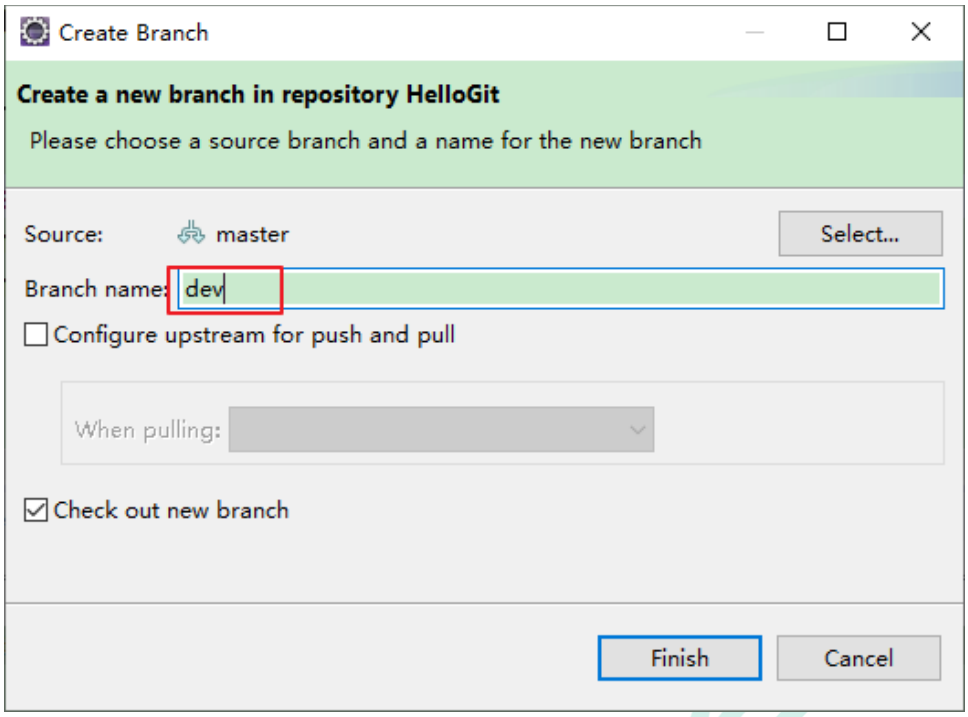



## 3.2.3 创建分支

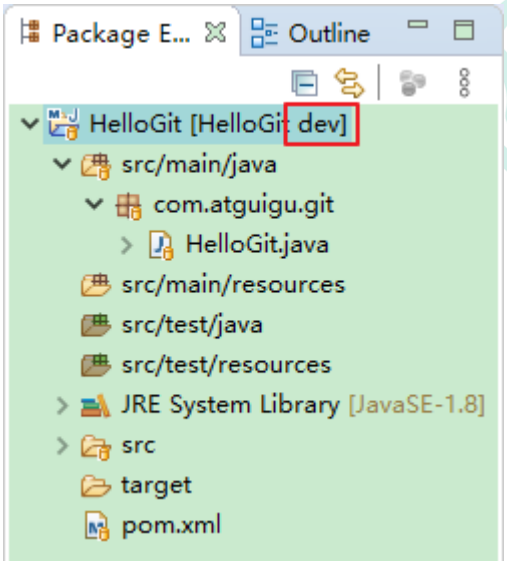
1) 在工程上右键→Team→Switch To→New Branch…




2) 给分支命名



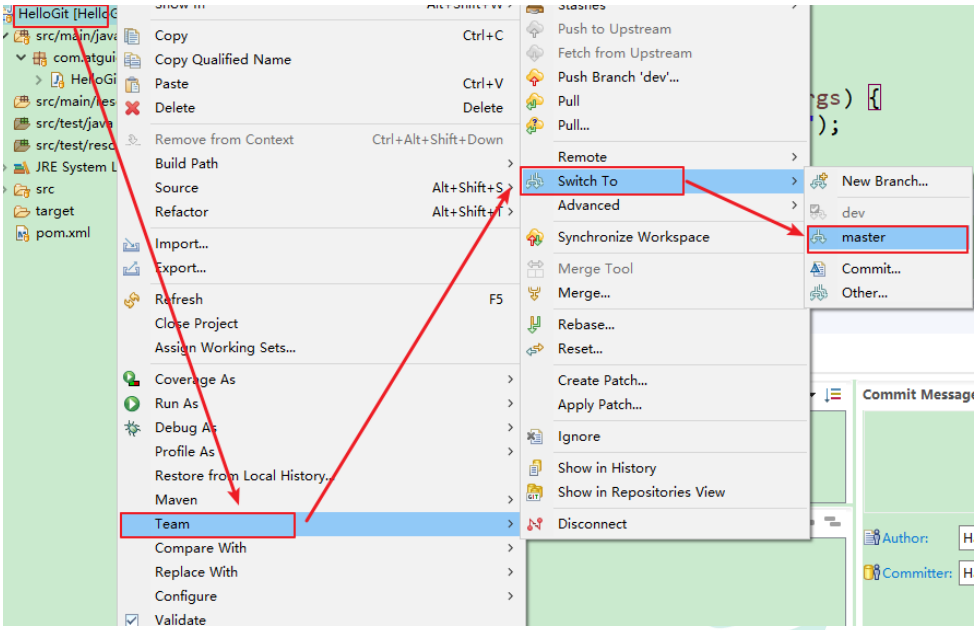

3) 点击 Finish 之后自动切换到新的分支



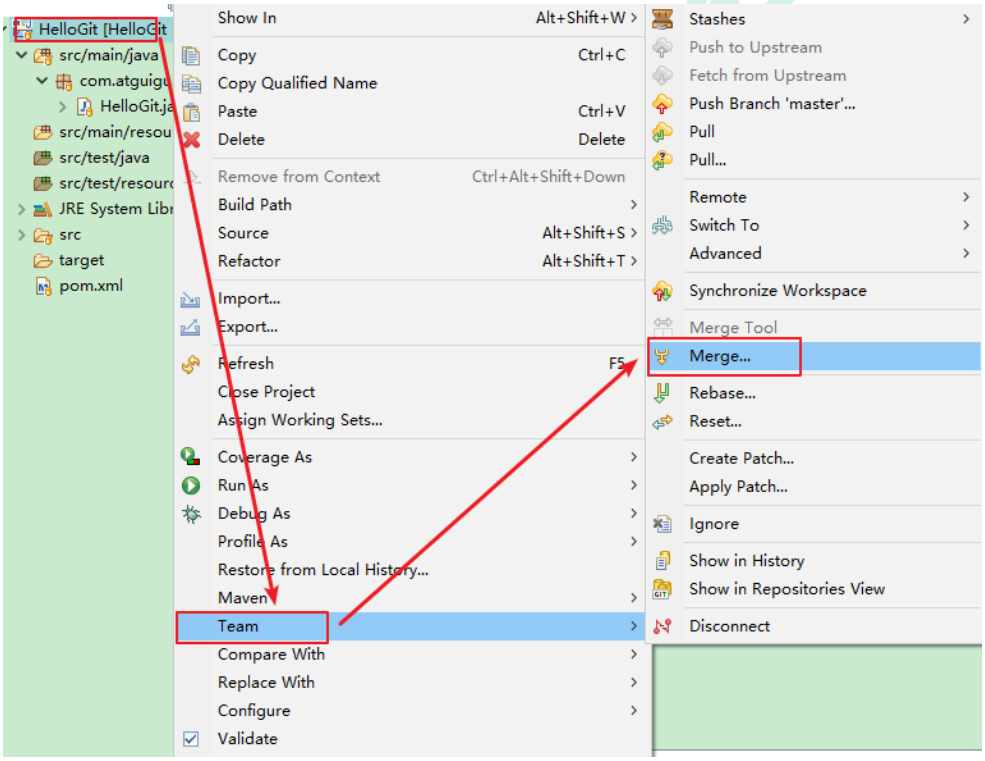

4) 在新的分支上添加新的内容，添加到暂存区，添加到本地库

### 3.2.4 合并分支

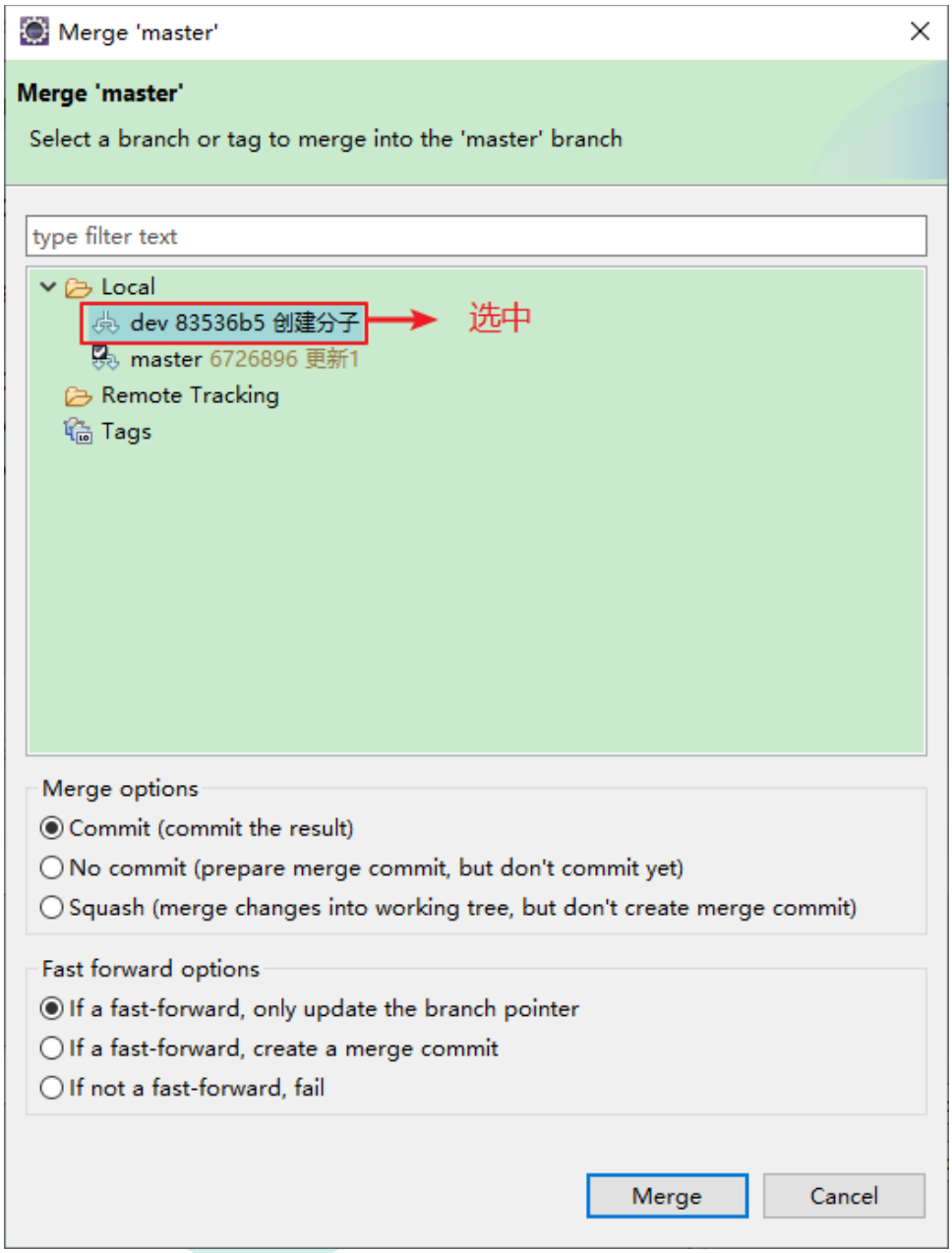
1) 切换到主干



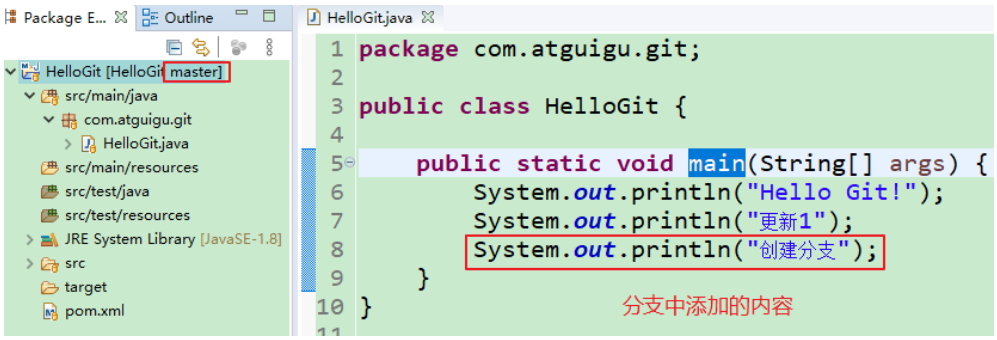

2) 将分支中的内容合并到主干




3) 选中分支开始合并


Merge 'master'
Merge 'master'
Select a branch or tag to merge into the 'master' branch
type filter text
Local
dev 83536b5 创建分子
选中
master 6726896 更新1
Remote Tracking
Tags
Merge options
Commit (commit the result)
No commit (prepare merge commit, but don't commit yet)
Squash (merge changes into working tree, but don't create merge commit)
Fast forward options
If a fast-forward, only update the branch pointer
If a fast-forward, create a merge commit
If not a fast-forward, fail
Merge
Cancel

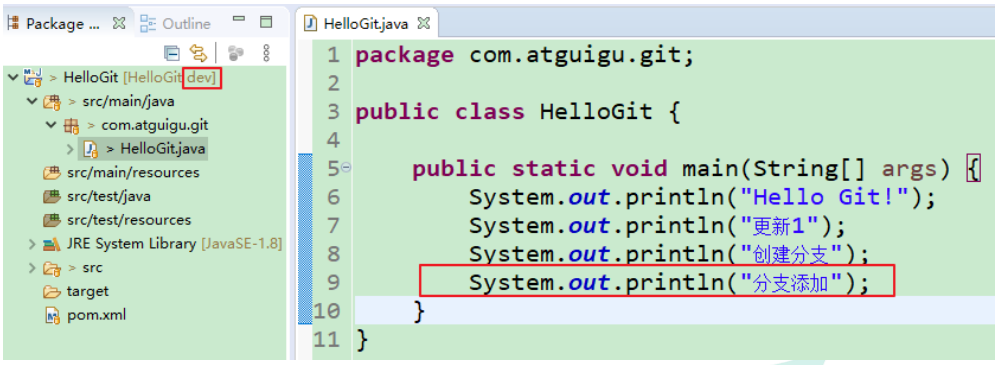
4) 合并成功


Package E...
Outline
HelloGit.java
HelloGit [HelloGit master]
src/main/java
com.atguigu.git
HelloGit.java
src/main/resources
src/test/java
src/test/resources
JRE System Library [JavaSE-1.8]
src
target
pom.xml
1 package com.atguigu.git;
2
3 public class HelloGit {
4
5 public static void main(String[] args) {
6 System.out.println("Hello Git!");
7 System.out.println("更新1");
8 System.out.println("创建分支");
9 }
10 }
分支中添加的内容

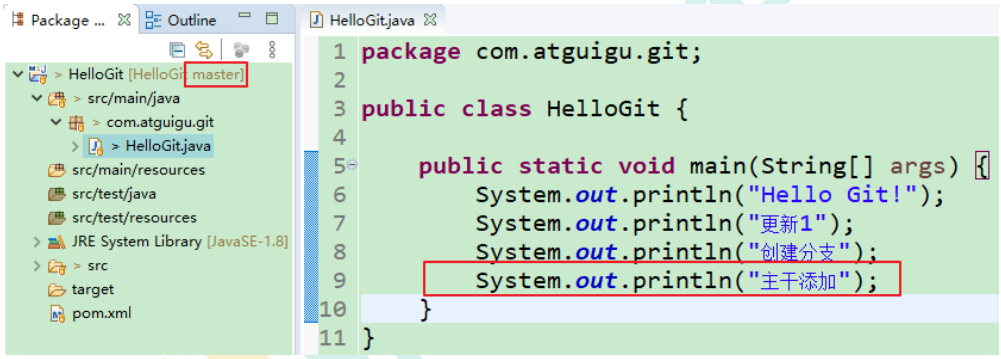
### 3.2.5 解决冲突

让主干和分支在同一个位置添加一行代码

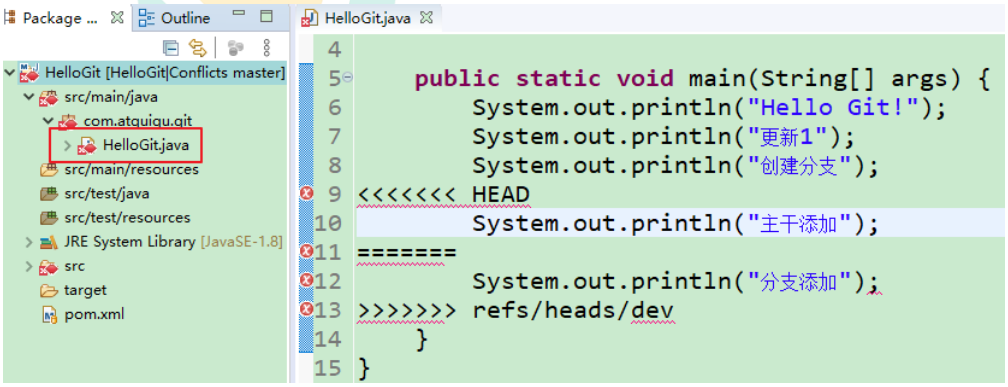
1) 分支添加内容，并添加到暂存区和本地库



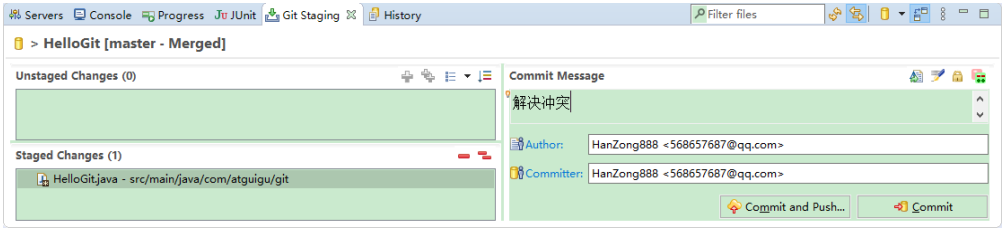

2) 主干添加内容，并添加到暂存区和本地库




3) 在主干上合并分支，出现冲突



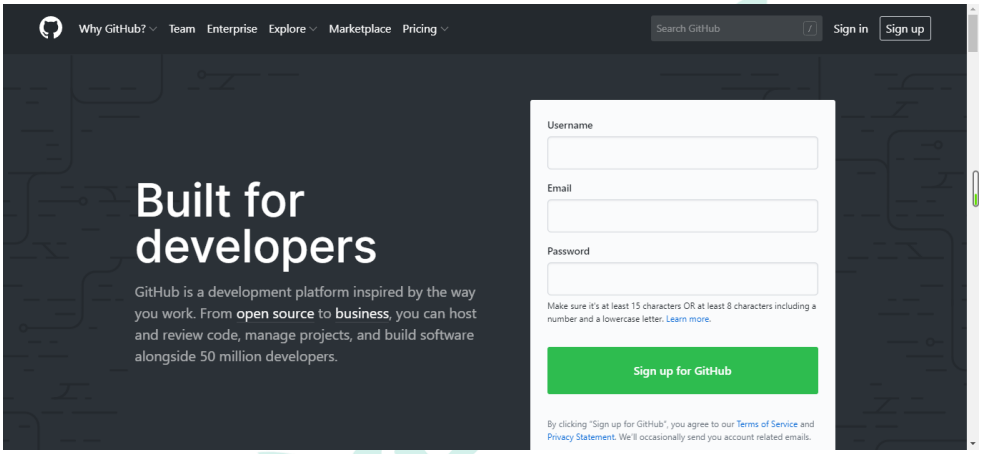

4) 有效沟通后选择保留的代码，重写添加到暂存区、本地库冲突即可解决




# 3.3 将本地库上传到 GitHub

## 3.3.1 注册 GitHub 账号

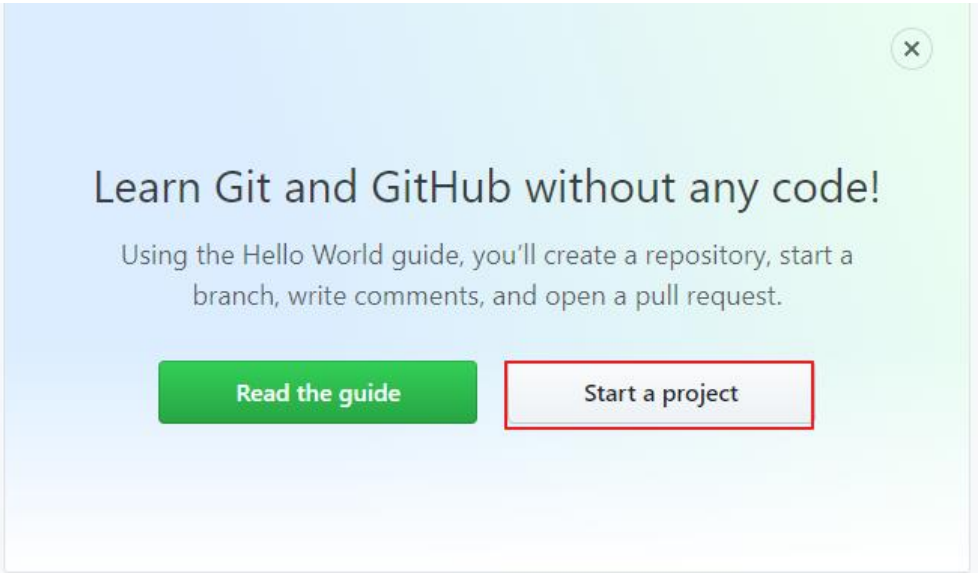
1) 访问 GitHub 网站 https://github.com/，首页即是注册页面



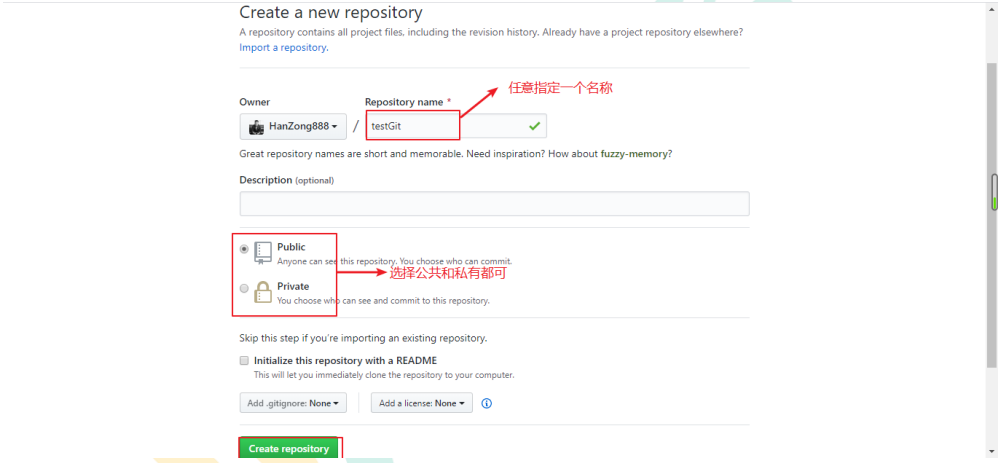

2) 输入用户名、邮箱、密码点击注册之后登录邮箱激活即可

## 3.3.2 上传本地库

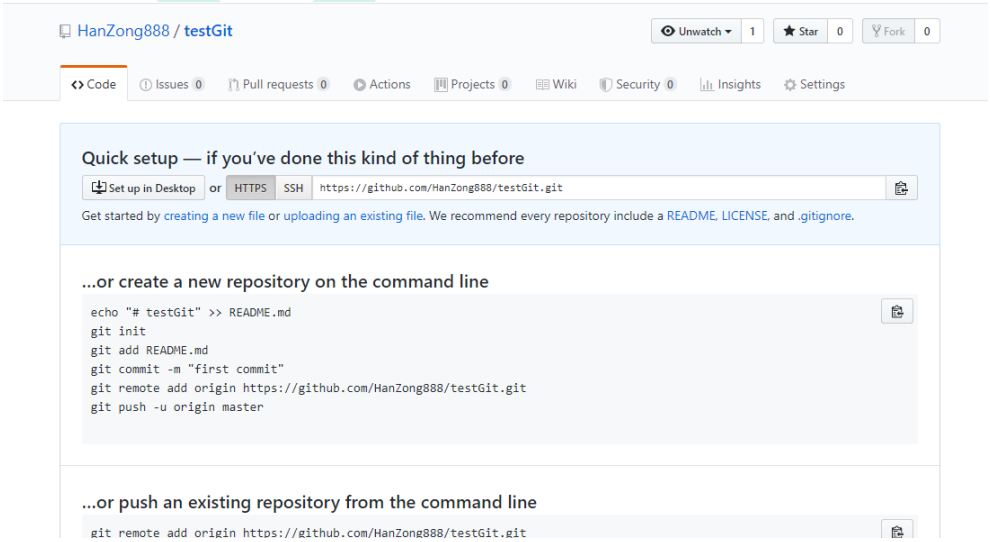
1) 登录 GitHub 在首页点击 Start a project



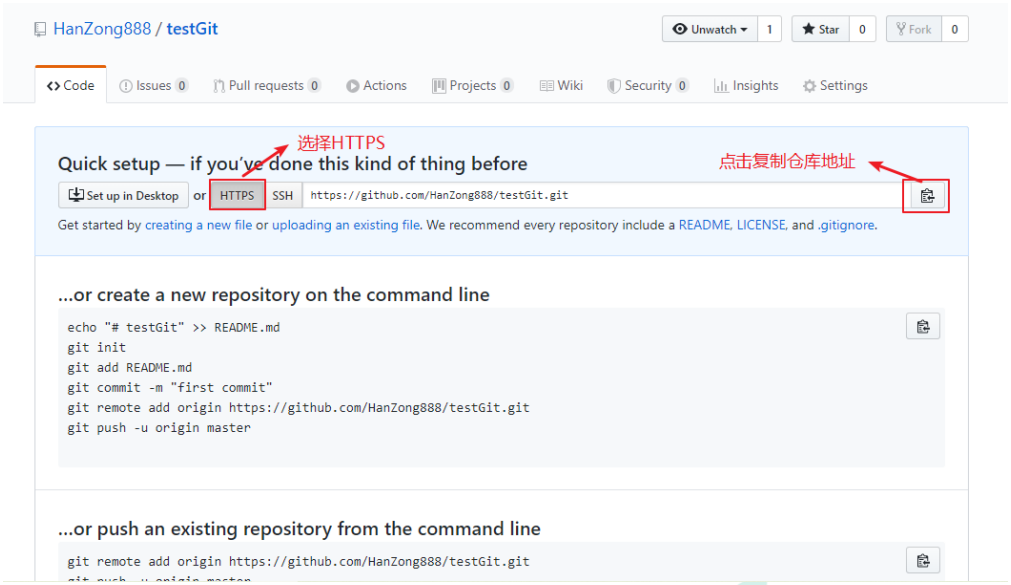

2) 指定仓库的名称和类型



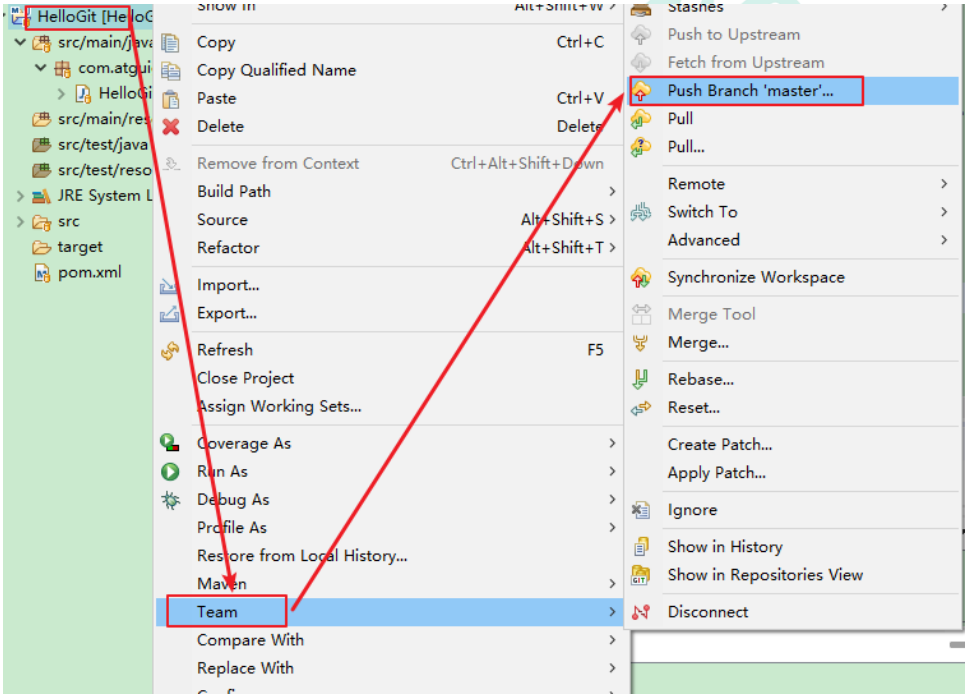

3) 仓库创建成功



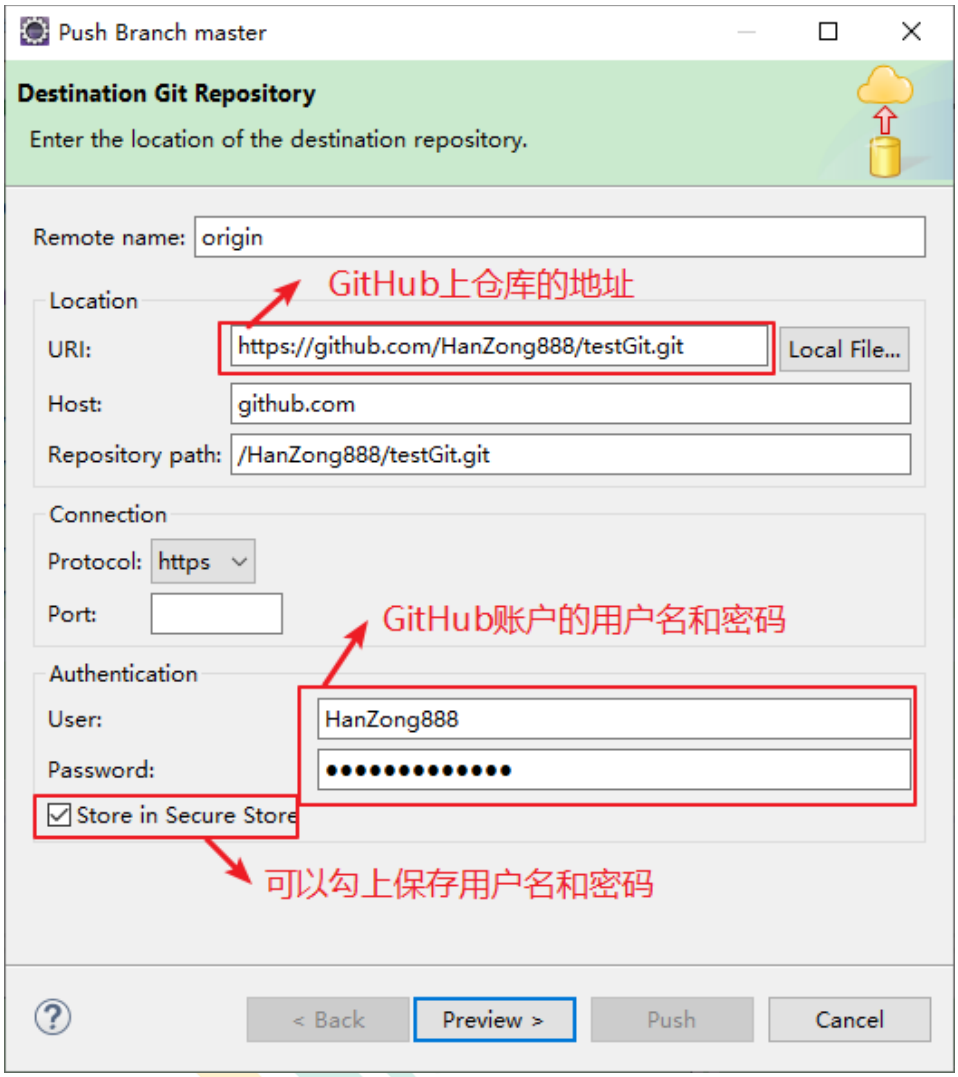

4) 复制仓库地址



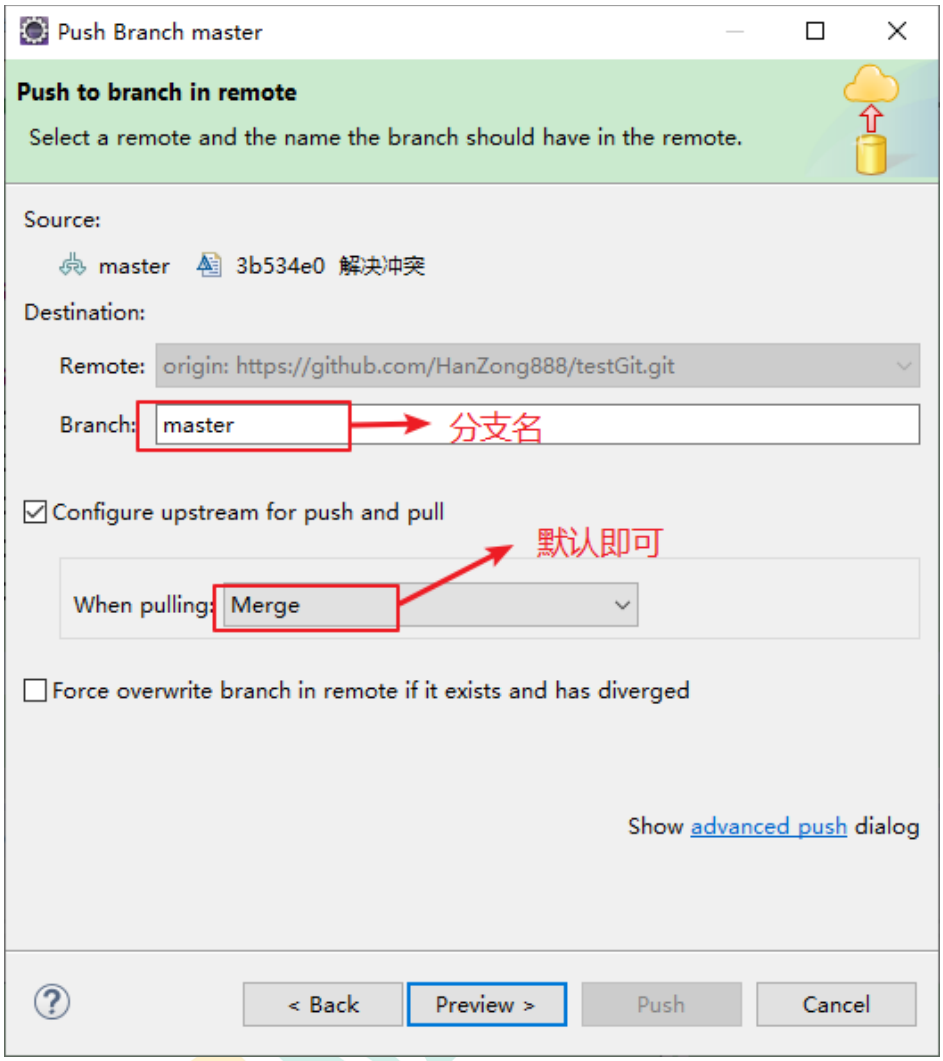

5) 将本地库上传到 GitHub 上创建的仓库中



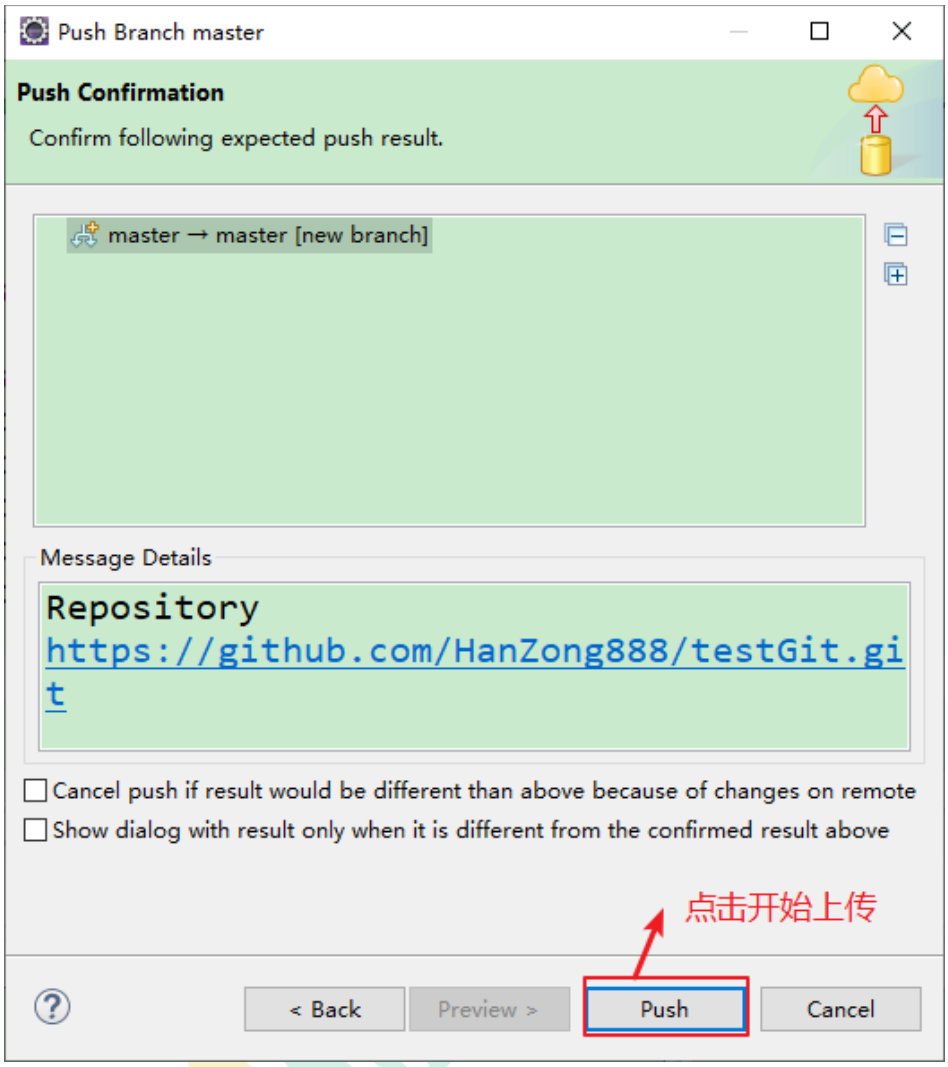

6) 指定仓库地址、用户名和密码


Push Branch master
Destination Git Repository
Enter the location of the destination repository.
Remote name: origin
GitHub上仓库的地址
Location
URI: https://github.com/HanZong888/testGit.git
Local File...
Host: github.com
Repository path: /HanZong888/testGit.git
Connection
Protocol: https
Port:
GitHub账户的用户名和密码
Authentication
User: HanZong888
Password: ●●●●●●●●●●●●●
Store in Secure Store
可以勾上保存用户名和密码
< Back
Preview >
Push
Cancel

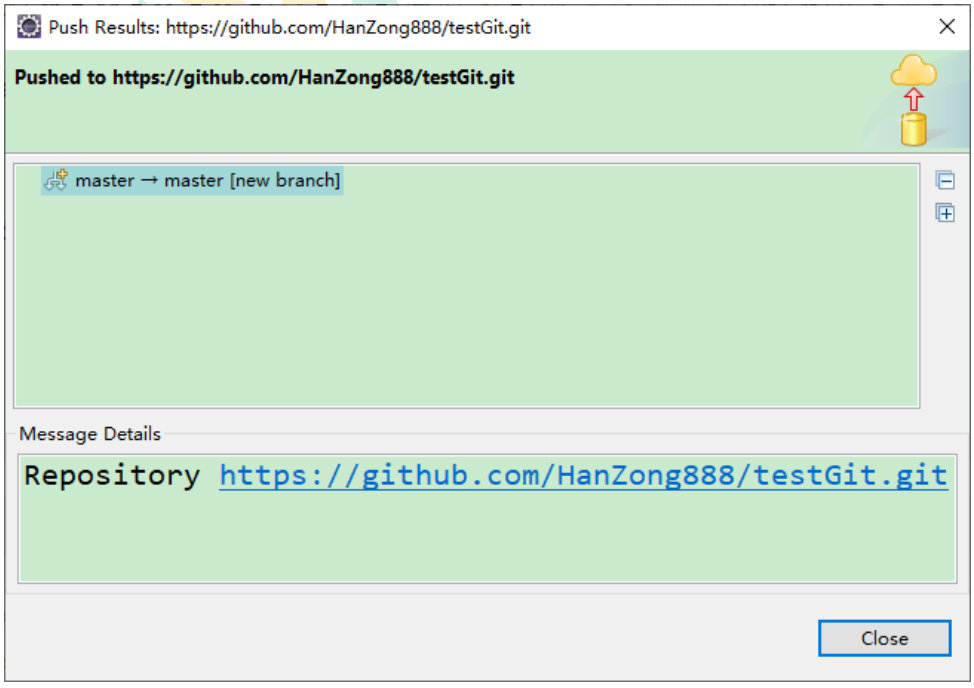
7) 点击 Preview



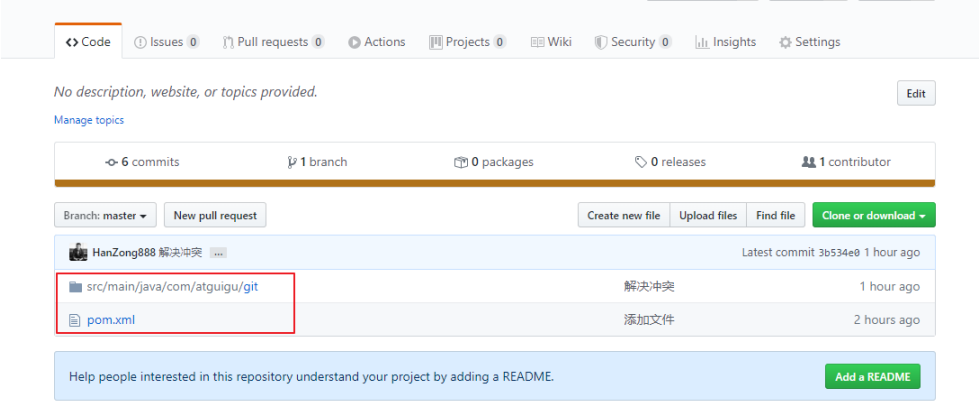

8) 点击 Preview 开始连接 GitHub，然后点击 Push 开始上传


Push Branch master
Push Confirmation
Confirm following expected push result.
master → master [new branch]
Message Details
Repository
https://github.com/HanZong888/testGit.git
Cancel push if result would be different than above because of changes on remote
Show dialog with result only when it is different from the confirmed result above
点击开始上传
< Back
Preview >
Push
Cancel

9) 上传成功


Push Results: https://github.com/HanZong888/testGit.git
Pushed to https://github.com/HanZong888/testGit.git
master → master [new branch]
Message Details
Repository https://github.com/HanZong888/testGit.git
Close

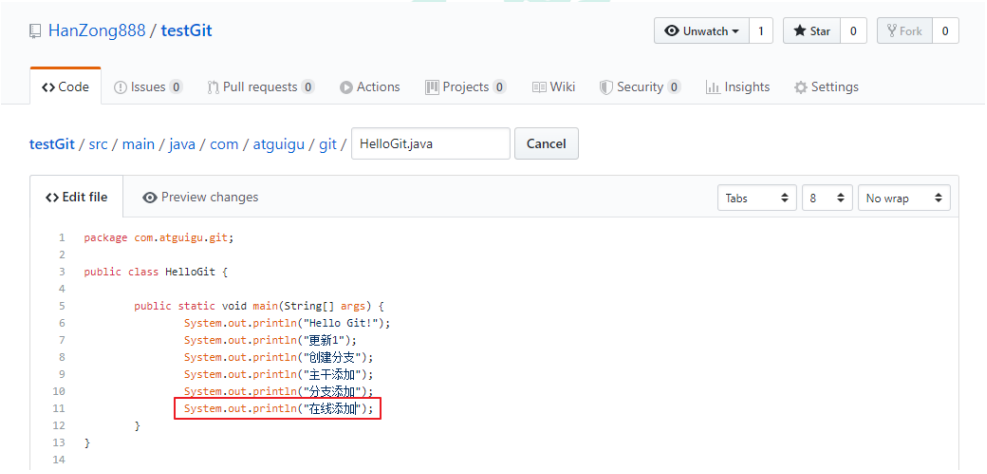
10) 查看 GitHub 仓库



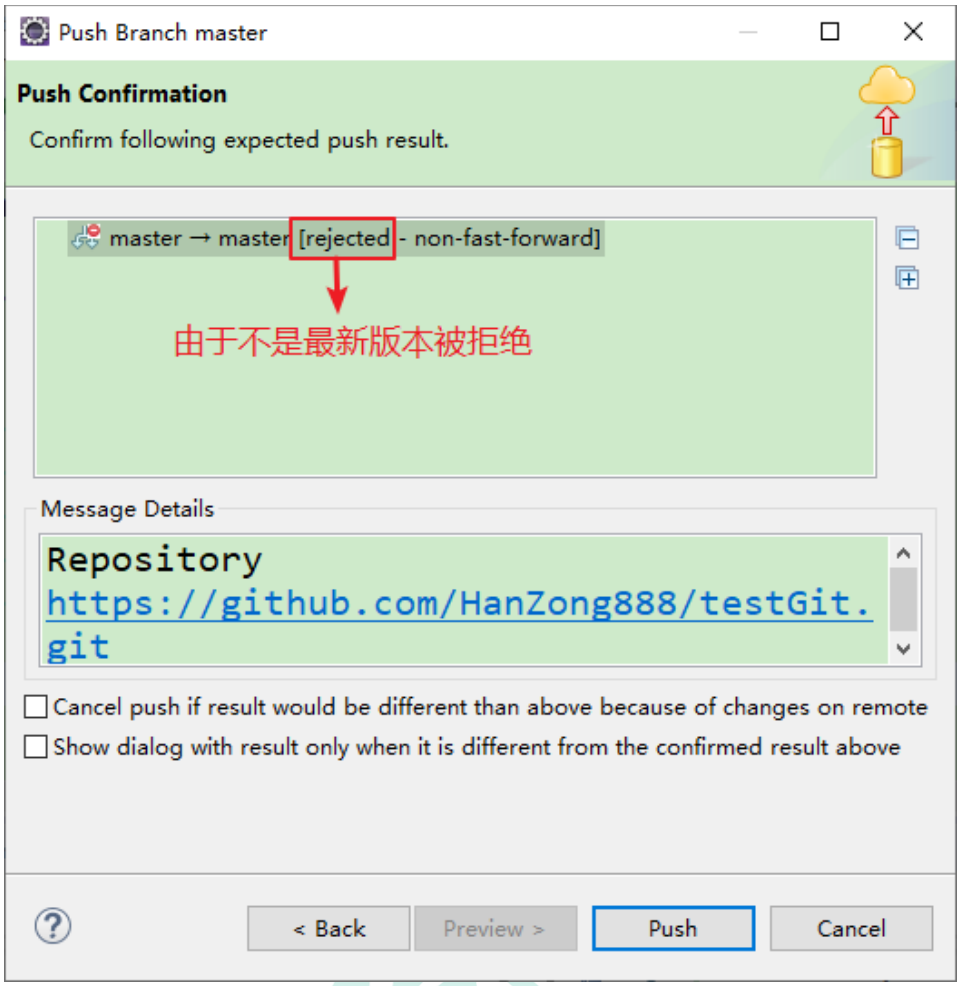

## 3.3.3 更新本地库

项目在 GitHub 上被合作伙伴更新之后，我们就需要将 GitHub 上最新的代码拉到本地库，否则会上传失败！接下来我们以在 GitHub 上在线添加内容演示如何更新本地库。

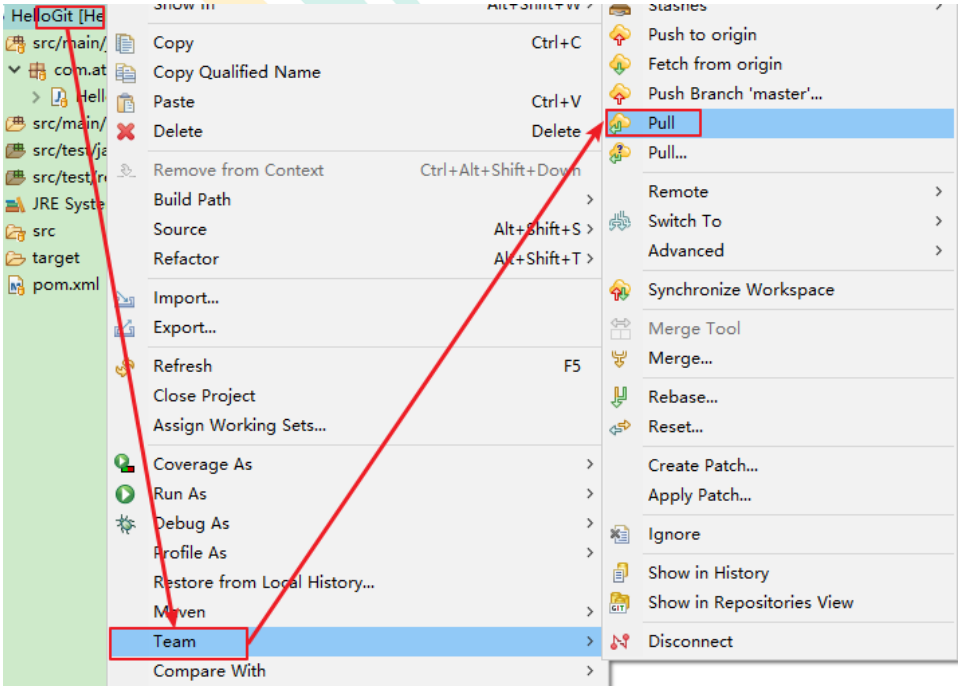
1) 在 GitHub 上在线修改文件



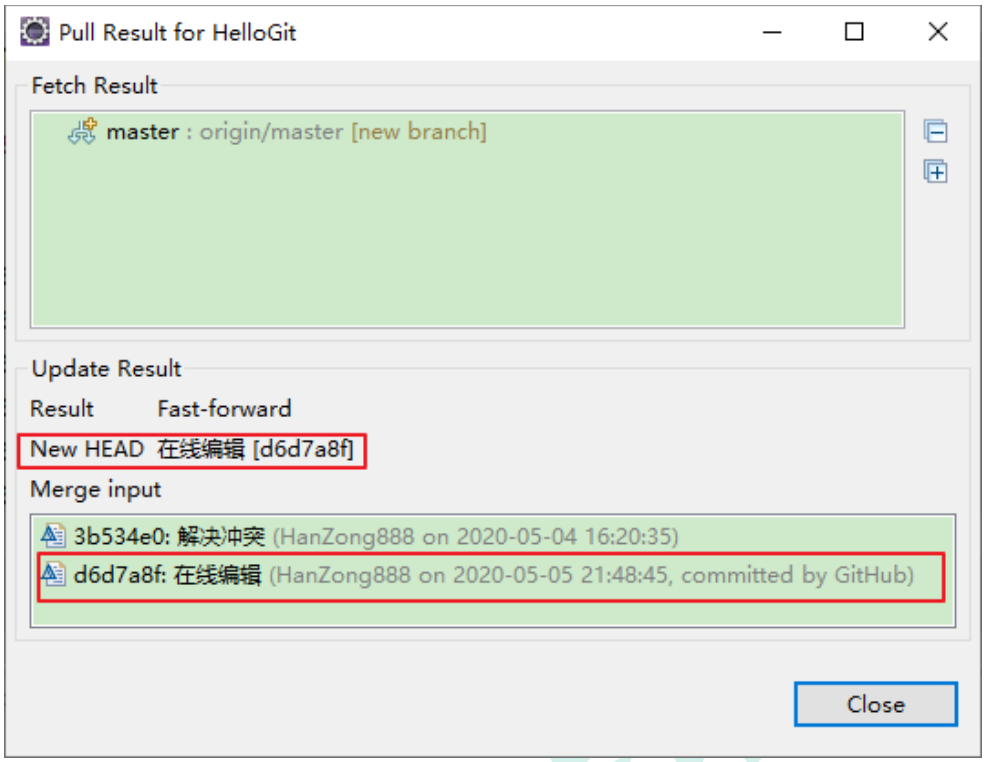

2) 在 Eclipse 如果不更新本地库直接上传会由于不是最新的版本而被拒绝

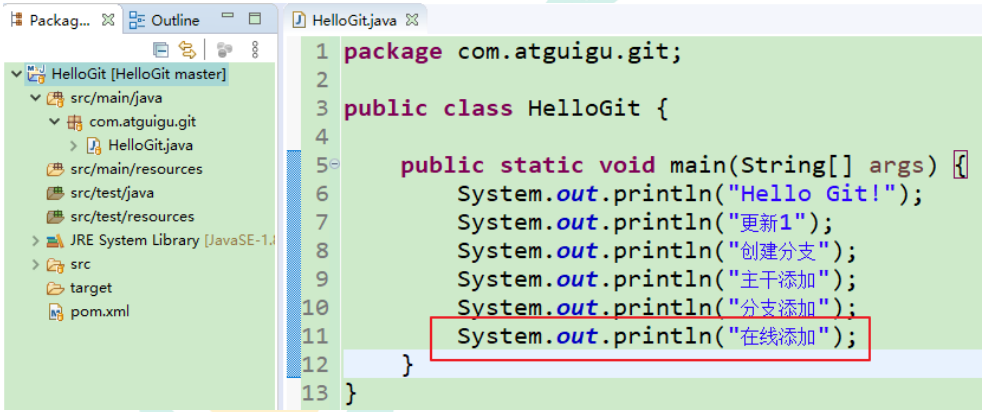



3) 将 GitHub 上最新的内容 Pull 下来




4) 更新本地库成功

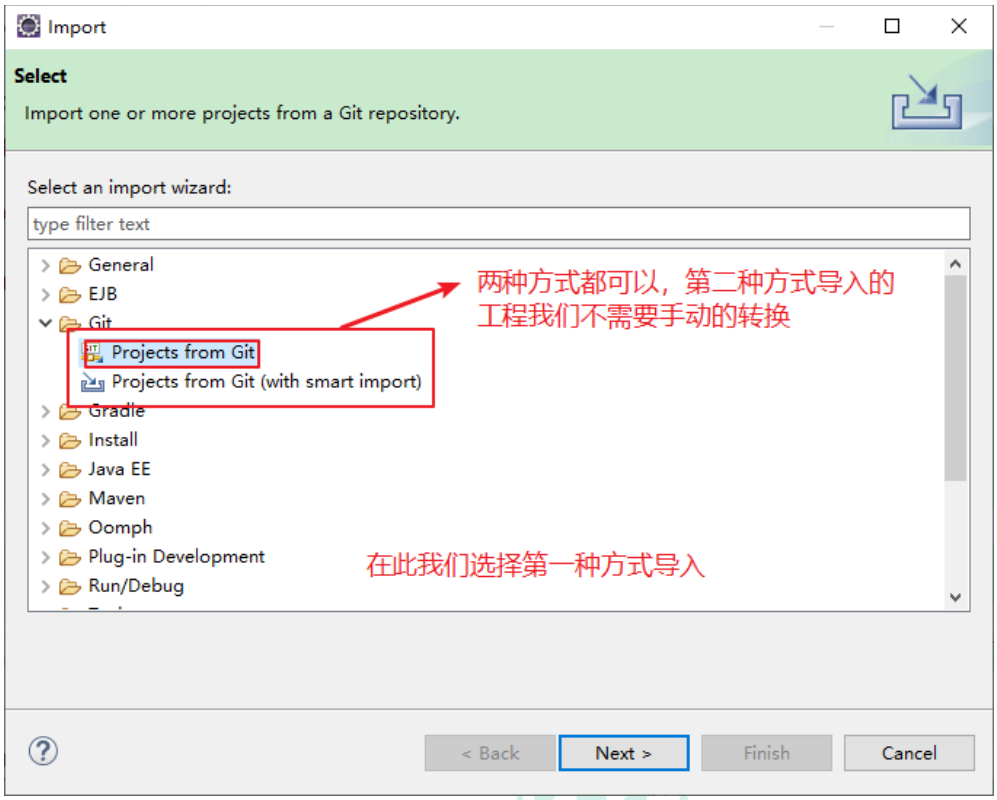


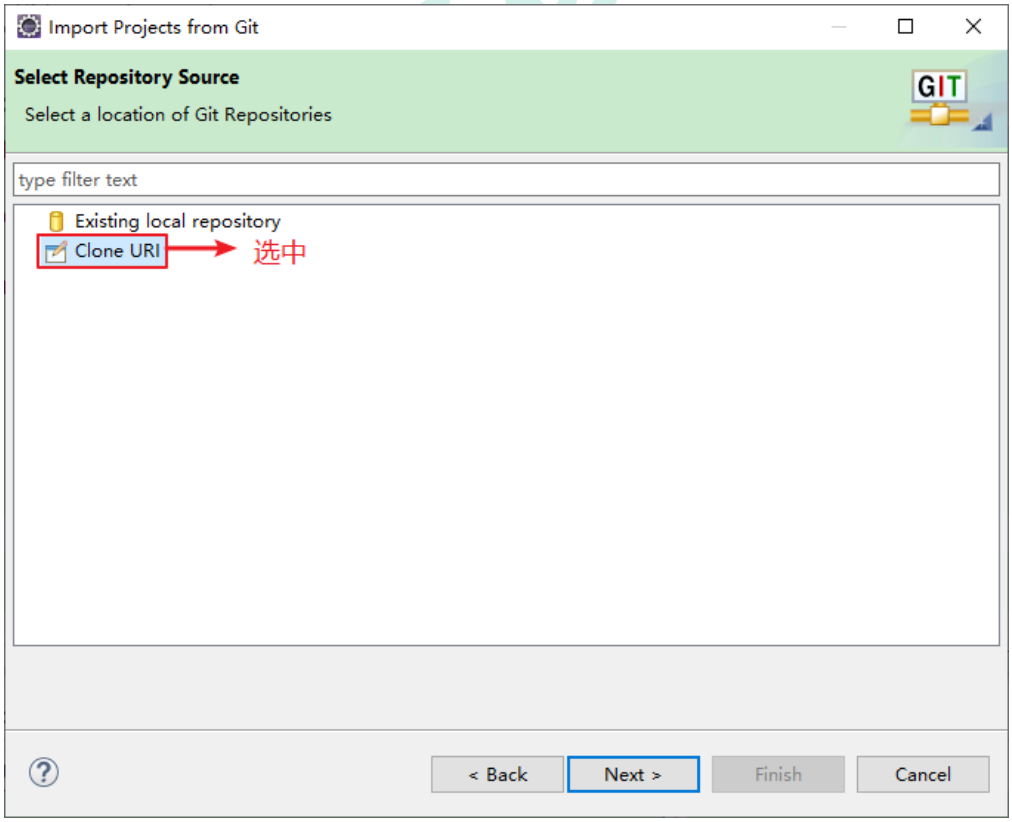

# 3.4 从 GitHub 上克隆项目到本地

## 3.4.1 克隆项目

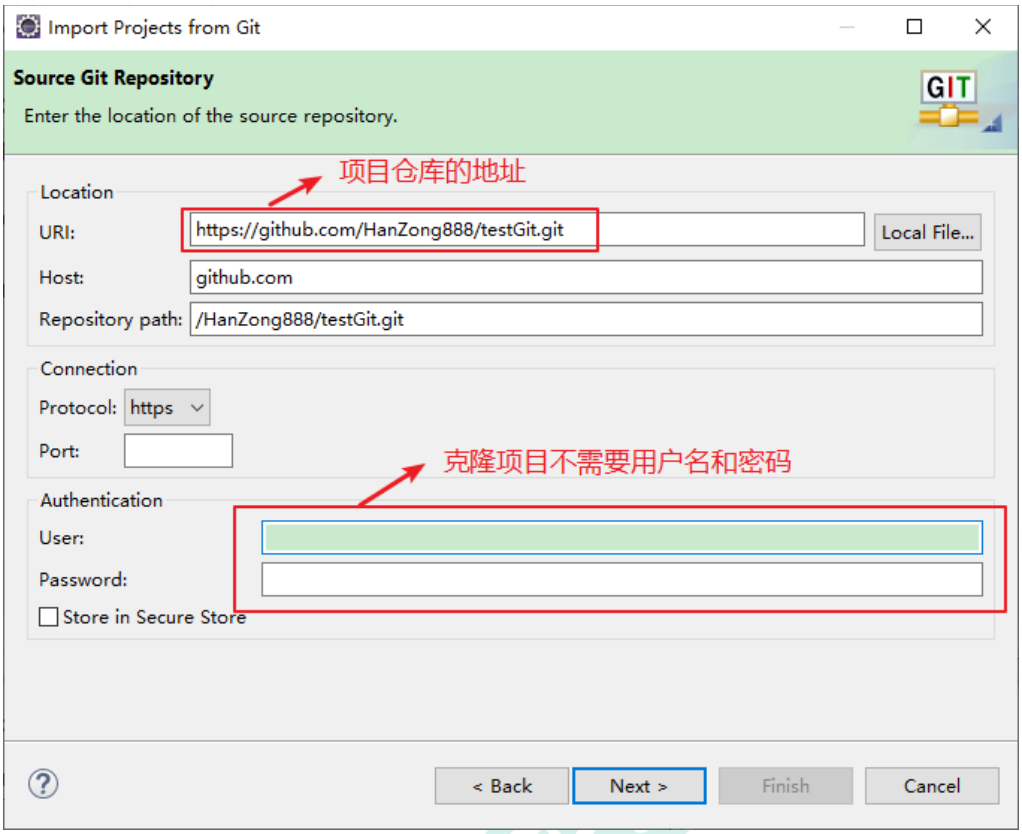
1) 在 Eclipse 中点击 File→Import…→Git



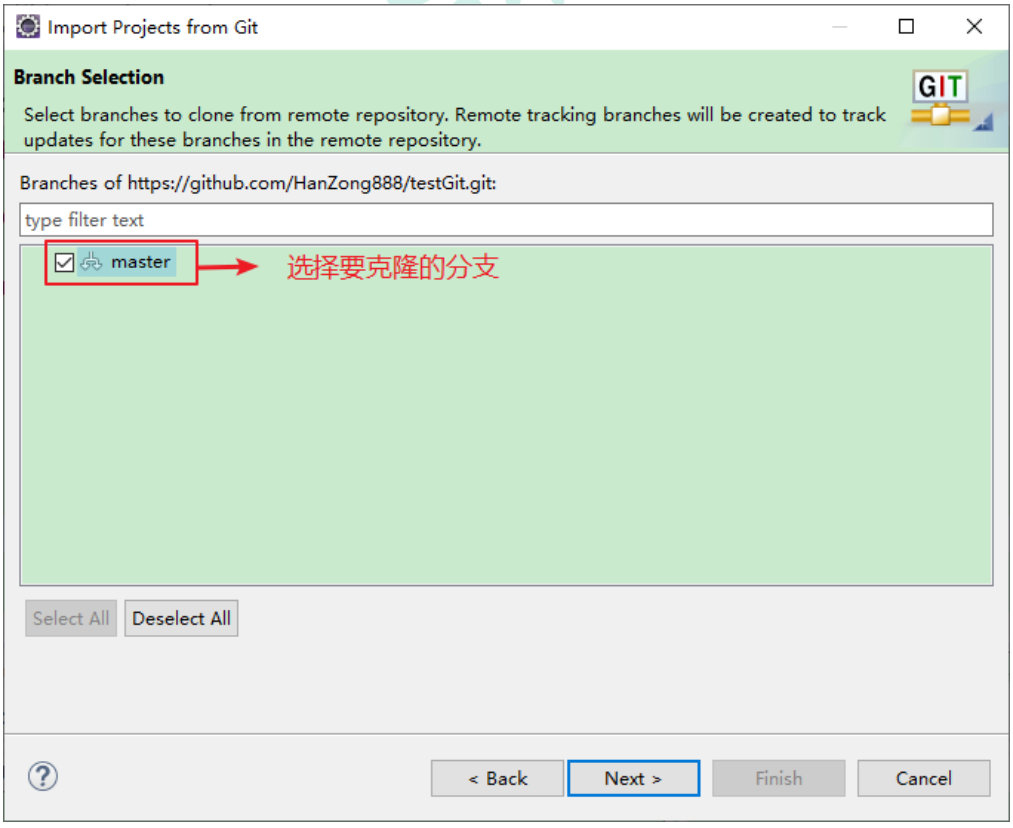

2) 选中 Clone URI



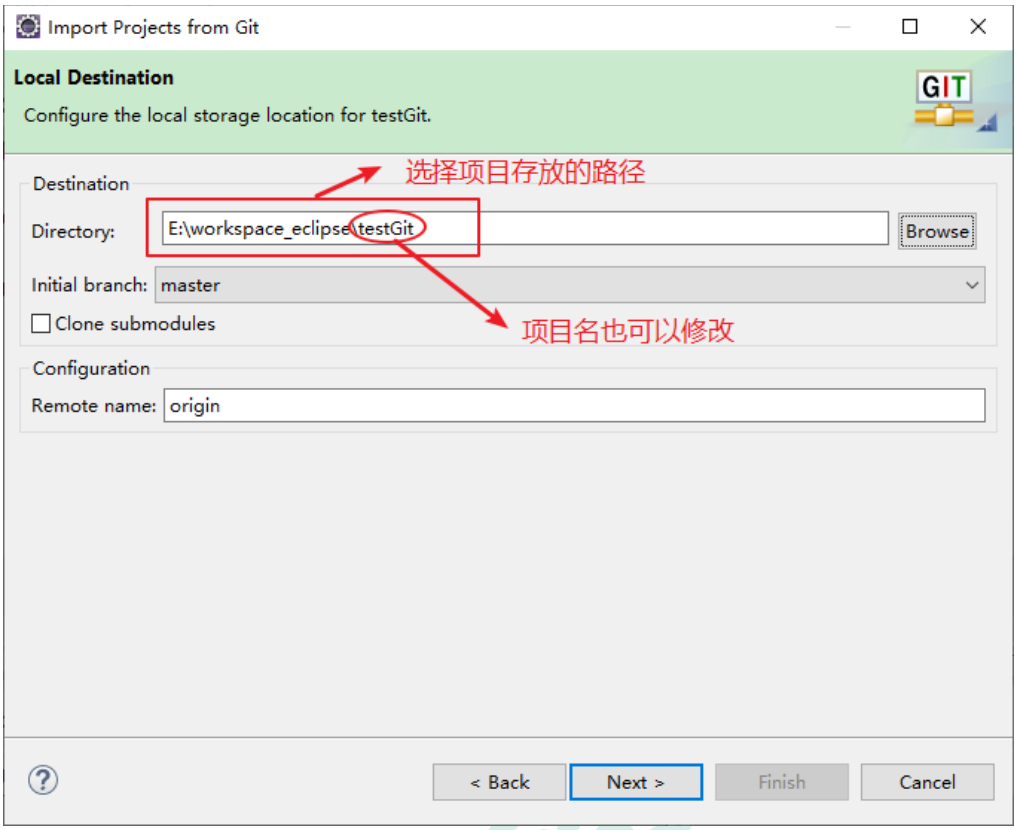

3) 输入克隆的项目在 GitHub 上仓库的地址



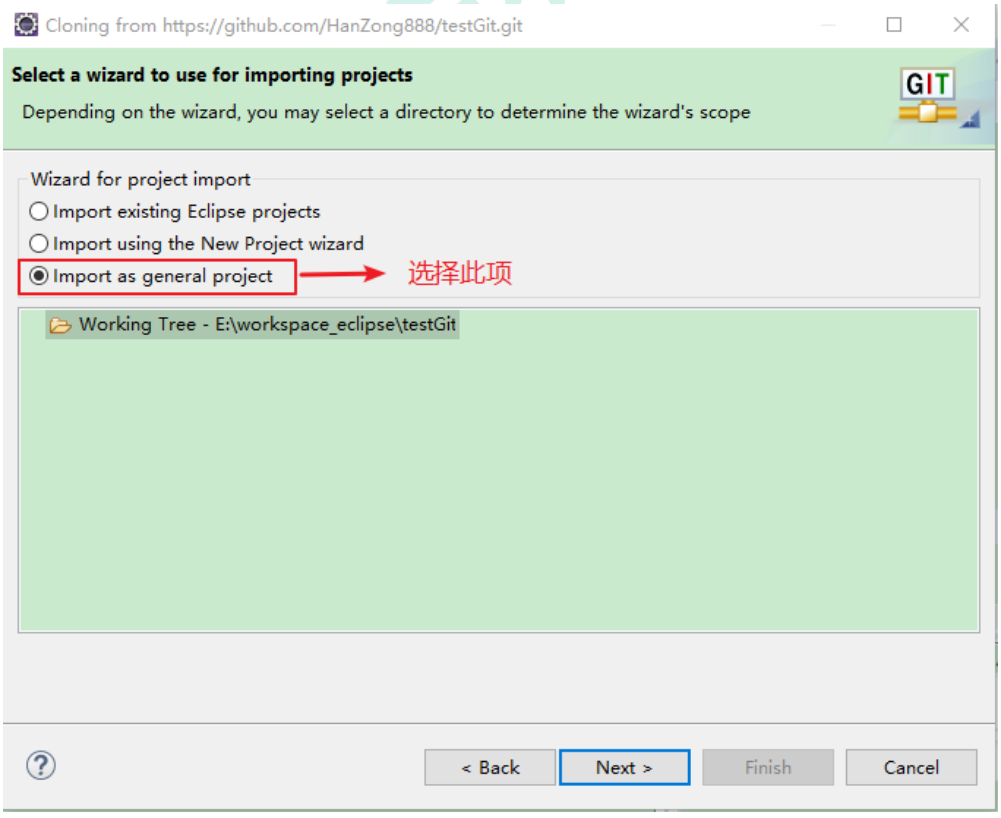

4) 选择要克隆的分支



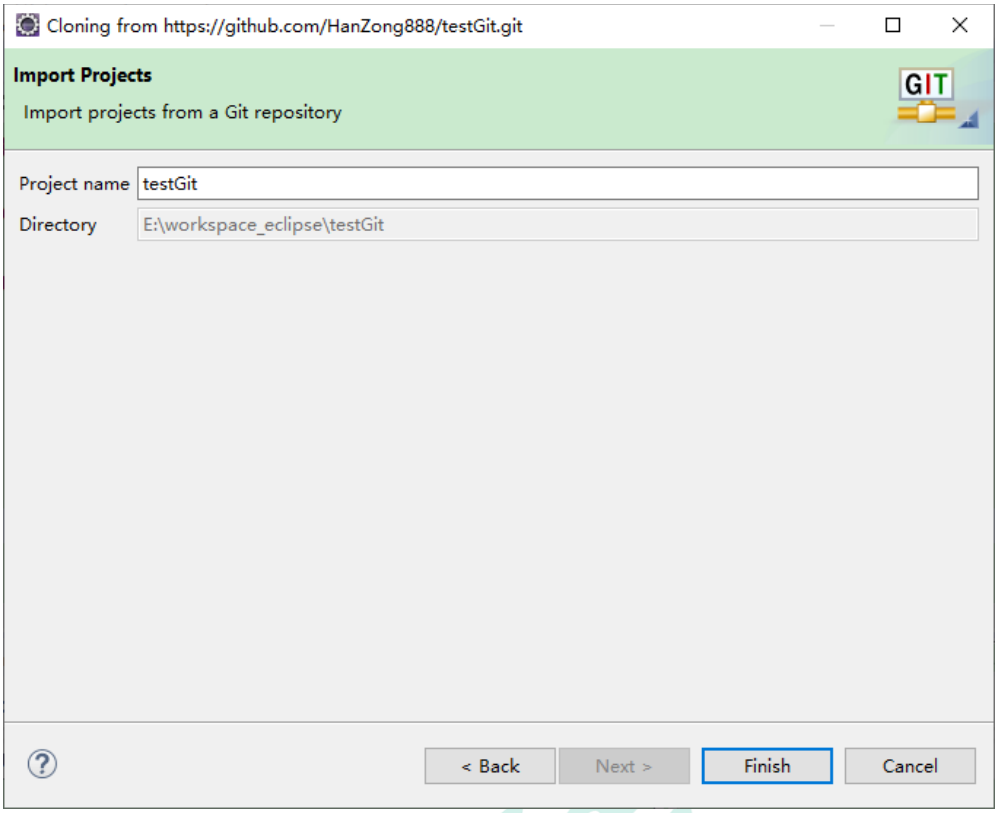

5) 选择项目存放的路径



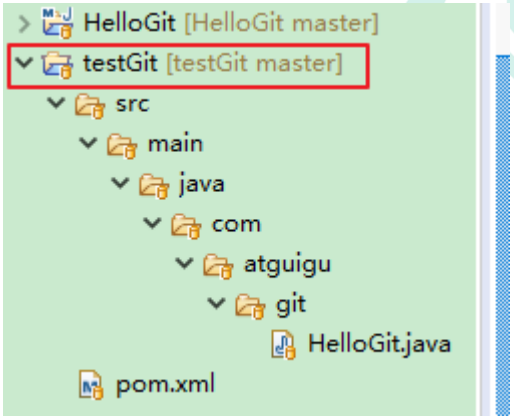

6) 选择作为一个普通工程导入（通过方式二导入没有这一步）




7) 点击完成

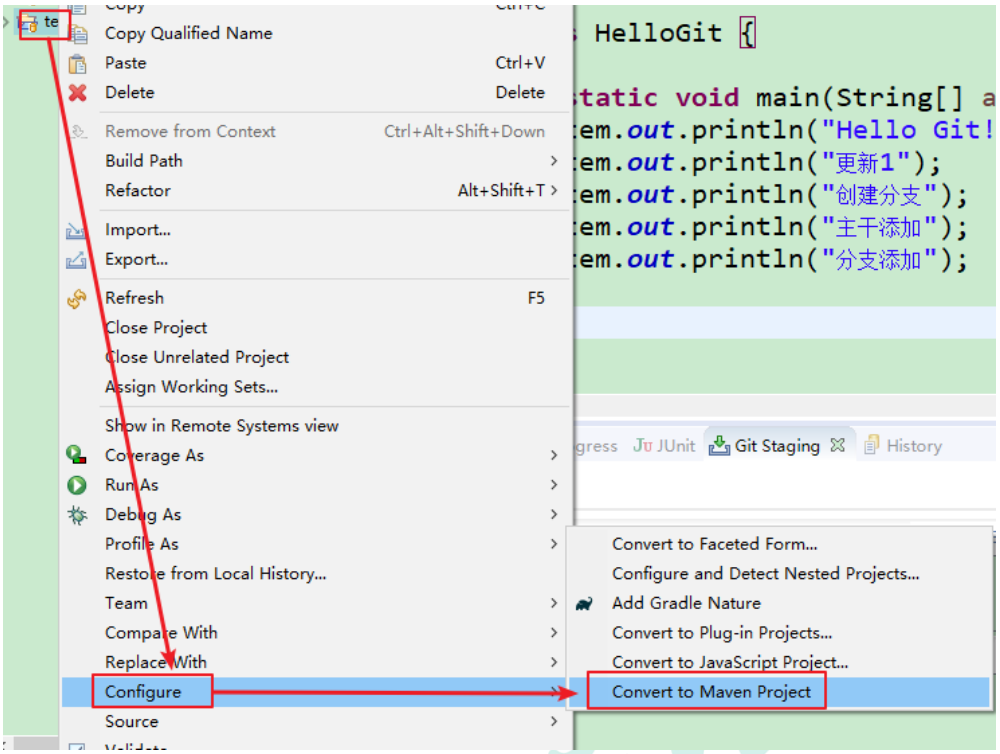



8) 导入之后并不是一个 Maven 工程（如果通过方式二导入会自动识别为 Maven 工程）

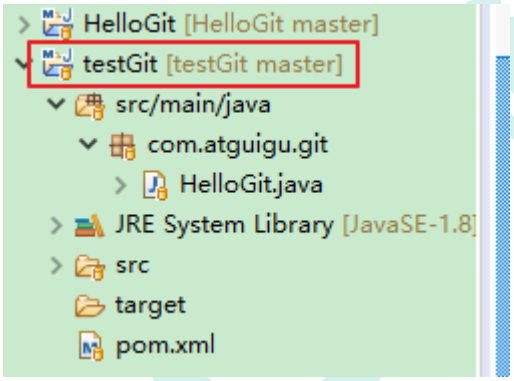



9) 转换为 Maven 工程

右键→Configure→Convert to Maven Project

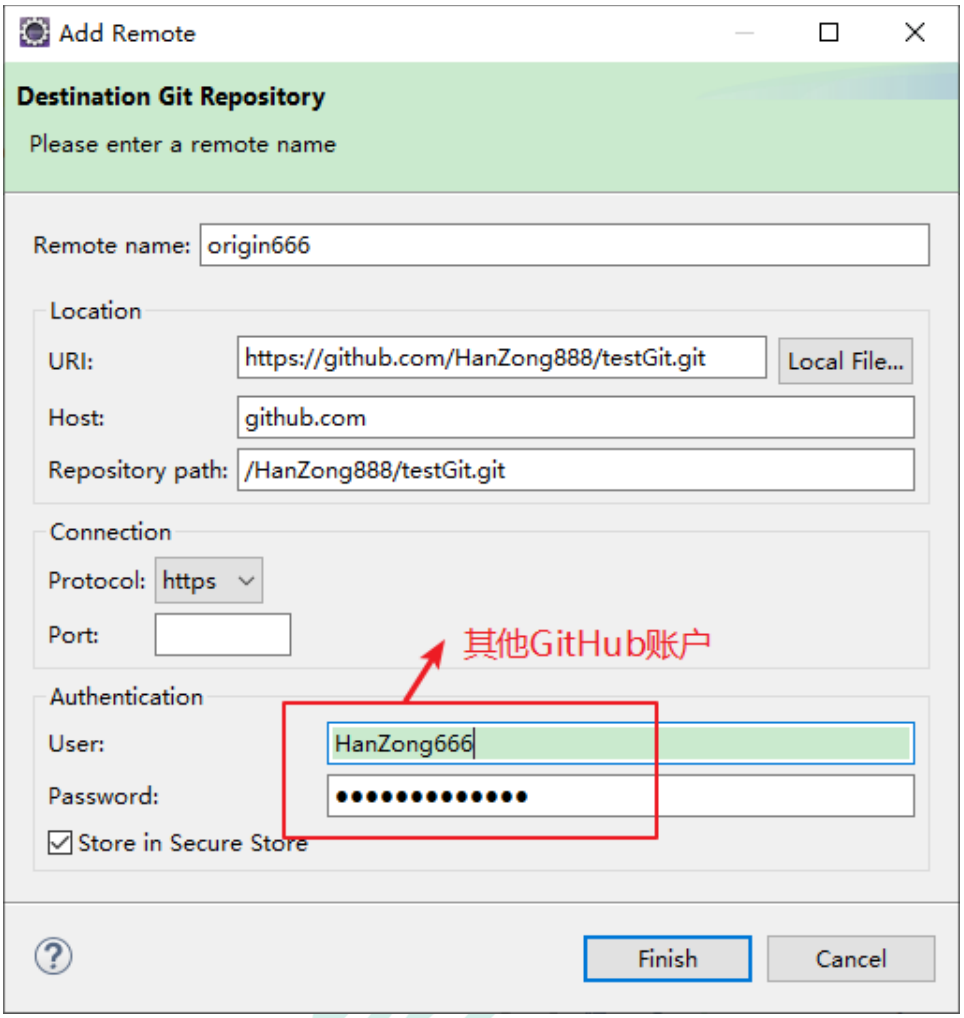


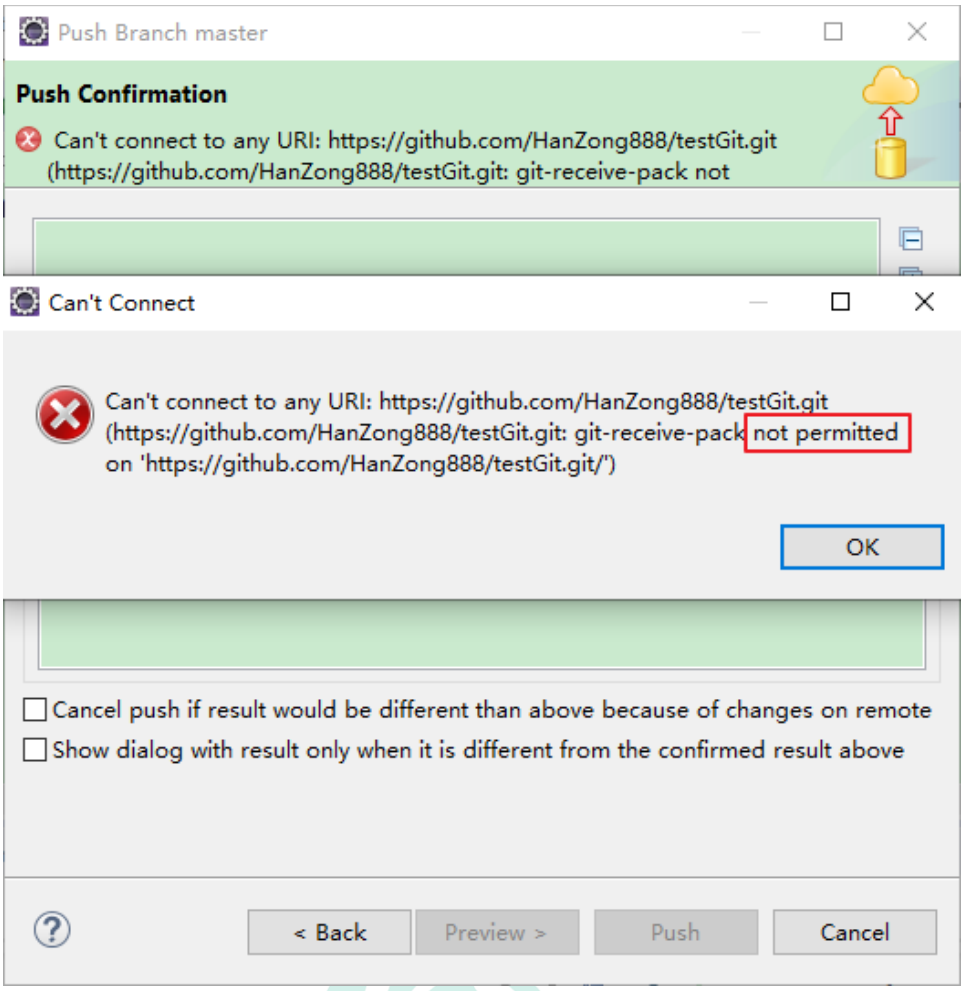

10) 转换之后




### 3.4.2 添加合作伙伴

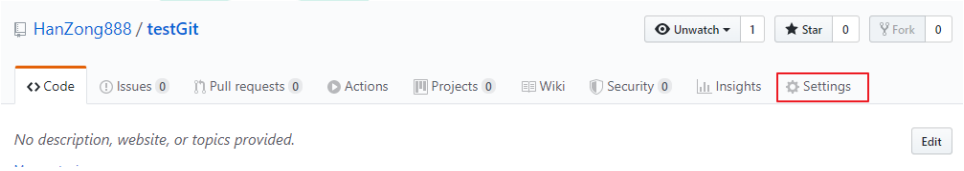
在项目的协同开发过程中，如果 GitHub 上的仓库不是你创建的，你克隆下来的项目完成代码的编辑之后上传会失败，如下图：


Add Remote
Destination Git Repository
Please enter a remote name
Remote name: origin666
Location
URI: https://github.com/HanZong888/testGit.git
Local File...
Host: github.com
Repository path: /HanZong888/testGit.git
Connection
Protocol: https
Port:
其他GitHub账户
Authentication
User: HanZong666
Password: ••••••••••••••
Store in Secure Store
Finish
Cancel

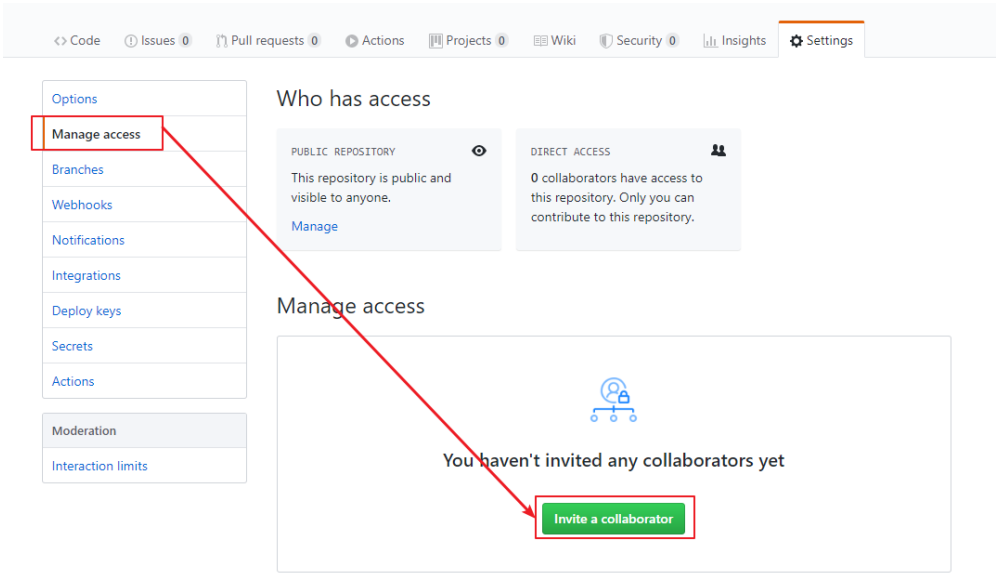



此时如果想要上传成功，必须让 GitHub 上仓库的拥有者添加你为合作伙伴，添加合作伙伴的步骤：

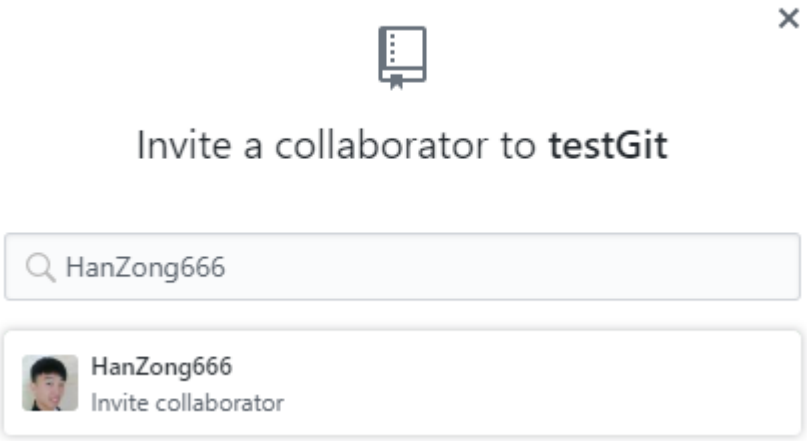
1) 让仓库拥有者在仓库上点击 settings



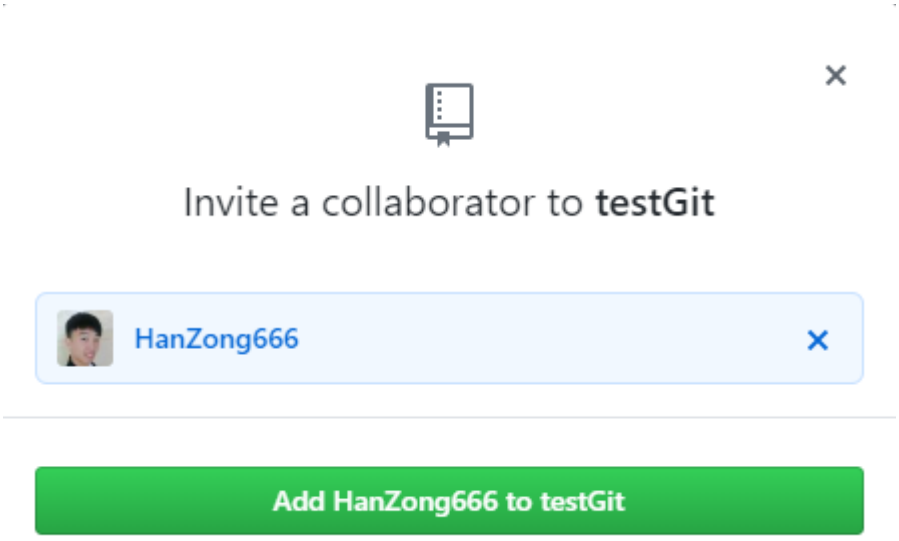

2) 点击 Manage Access




3) 搜索合作伙伴，即搜索你的 GitHub 账户

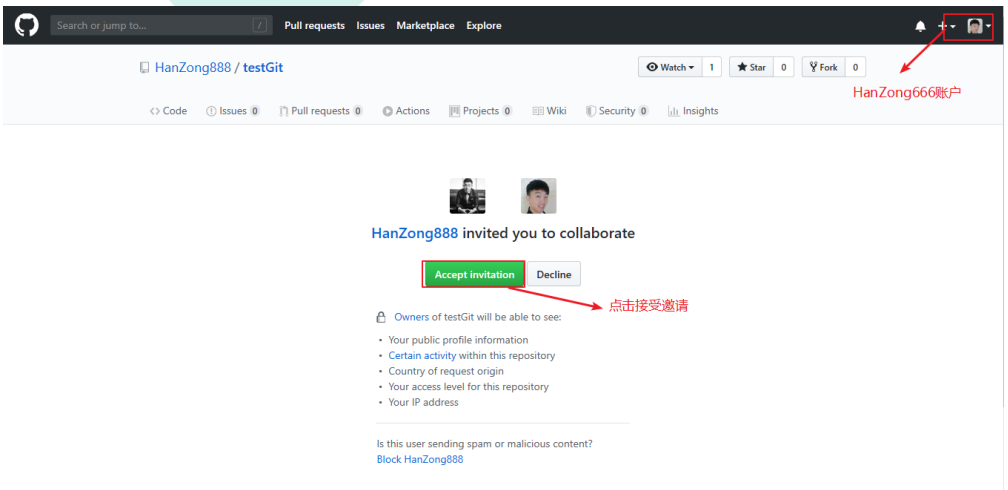



4) 点击邀请




5) 等待你回复


6) 仓库拥有者可以将链接发送给你让你确认，当然你的邮箱也会收到等待确认的邮件

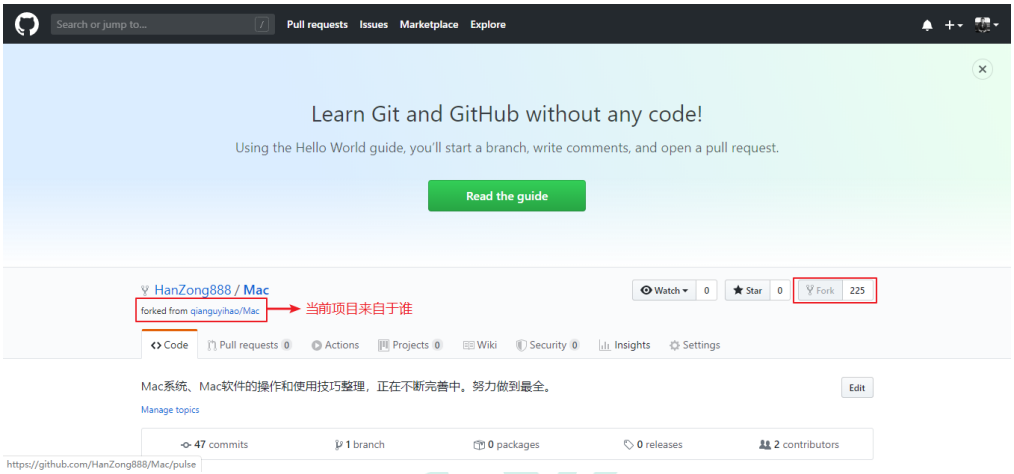



7) 等你接收之后就与仓库拥有者成为了合作伙伴，就可以向仓库上传项目了

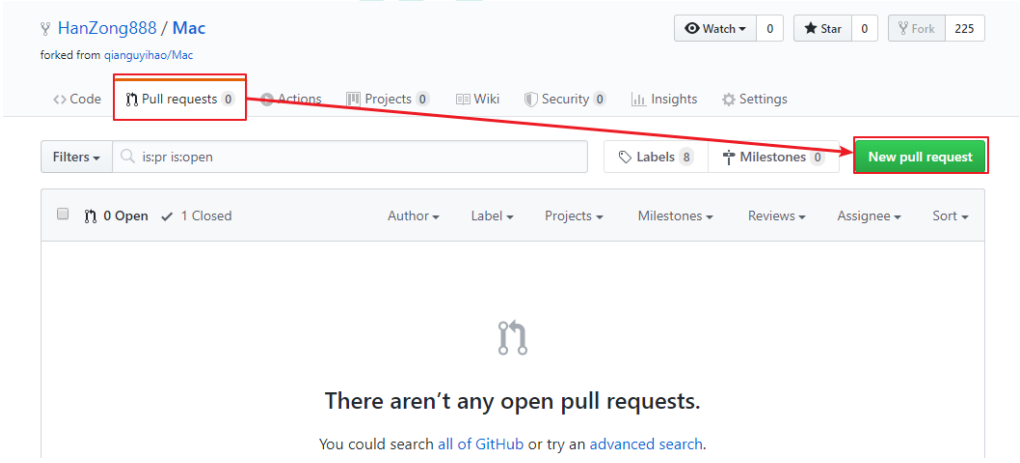
### 3.4.3 非合作伙伴如何共同开发项目

GitHub 上有好多开源的好的项目，我们可以下载下来查看、借鉴别人的代码。但是如果我们修改了，由于不是对方的合作伙伴，我们无法将代码上传到别人的仓库，此时我们可以选择使用 fork 和 pullrequest 操作

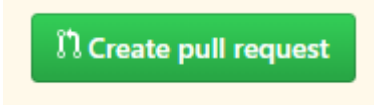
1) 看到喜欢的项目点击 fork 操作将别人的项目复制一份作为自己的仓库，同时仓库下面会显示当前项目来自于哪里



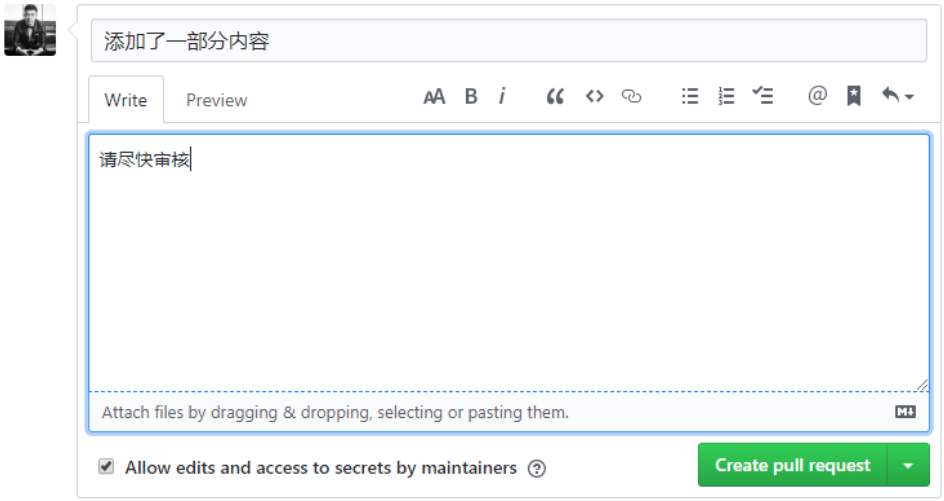

2) 修改代码之后如果想合并到作者那里，需要让作者审核，点击 Pull requests→New pull request




3) 点击 Create pull request




4) 填入标题、描述后点击 Create pull request




5) 你创建了 pull request 之后作者会收到 Pull requests 信息，作者可以选择拒绝和接受你的请求

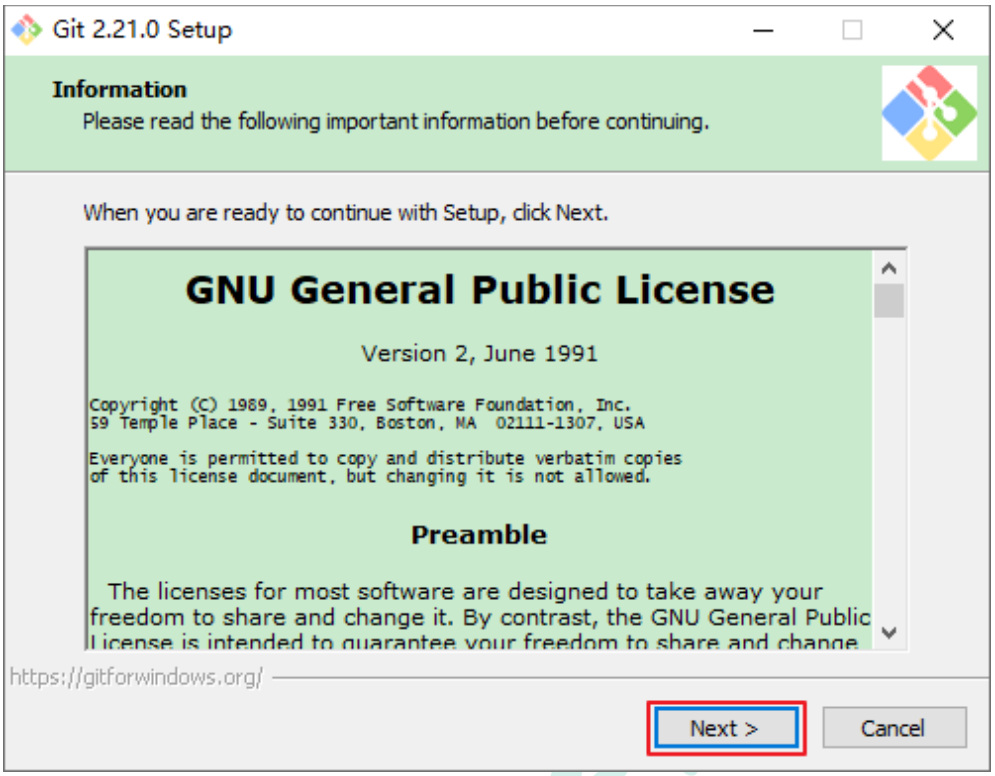
# 第 4 章 在 Idea 中使用 Git

## 4.1 安装 Git 核心程序

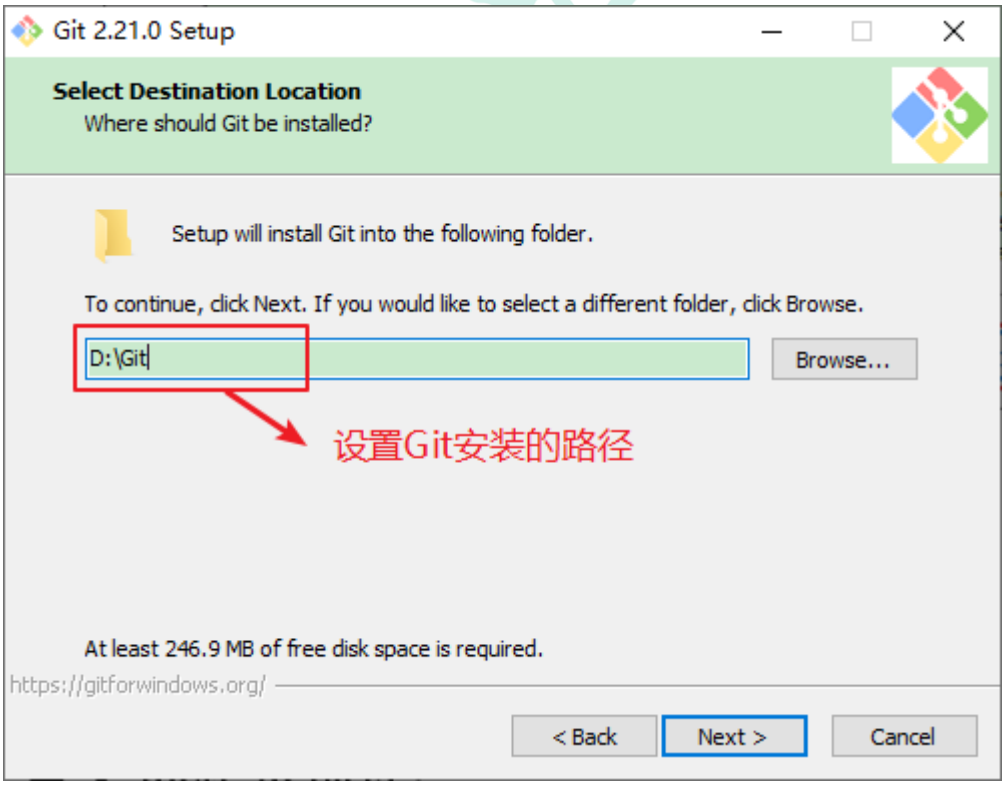
根据自己的电脑操作系统从 Git 官网 https://git-scm.com/下载对应的 Git 核心程序。

以 git-2.21.0 为例说明安装步骤：

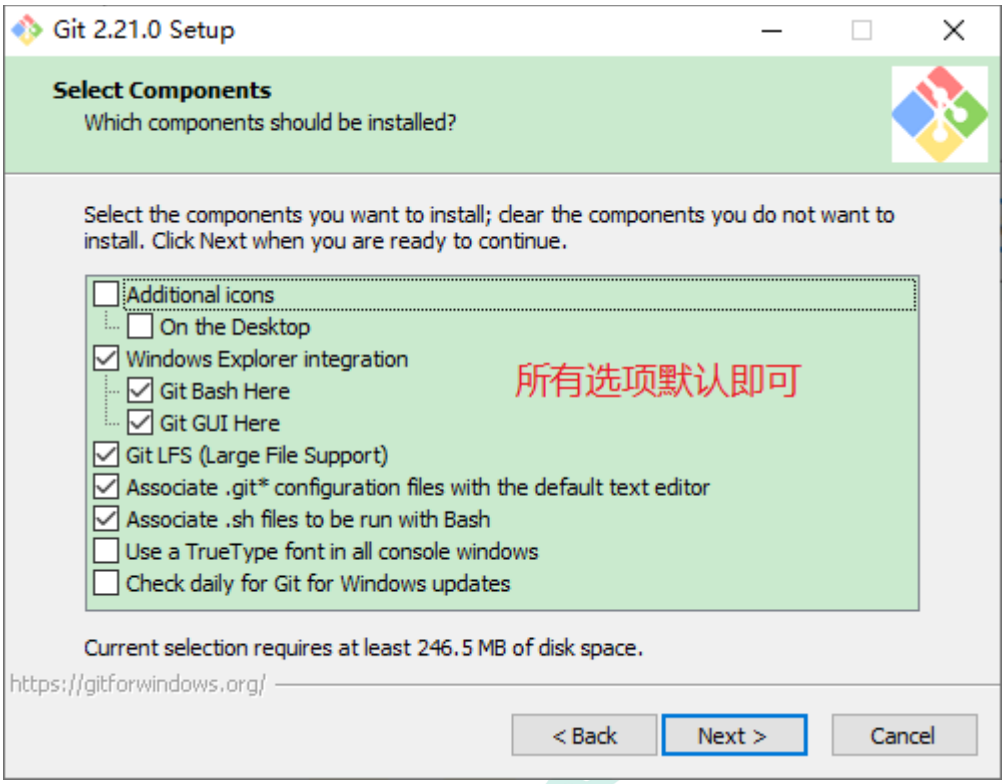
1) 双击 Git-2.21.0-64-bit.exe



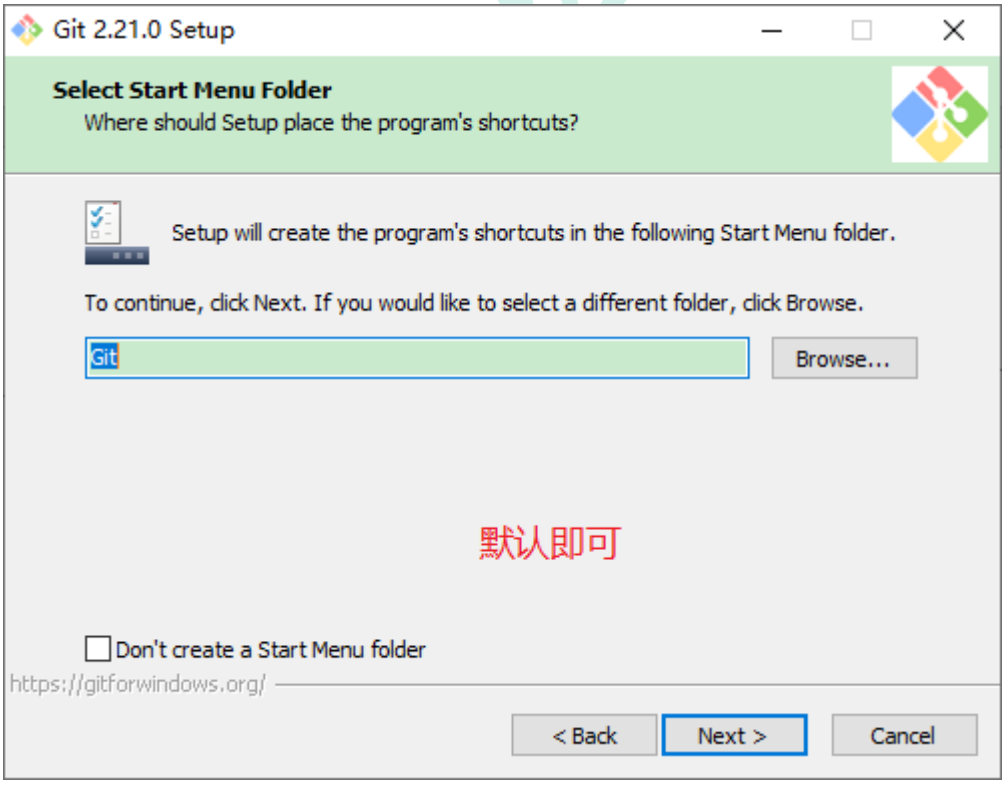

2) 点击 Next 设置安装路径



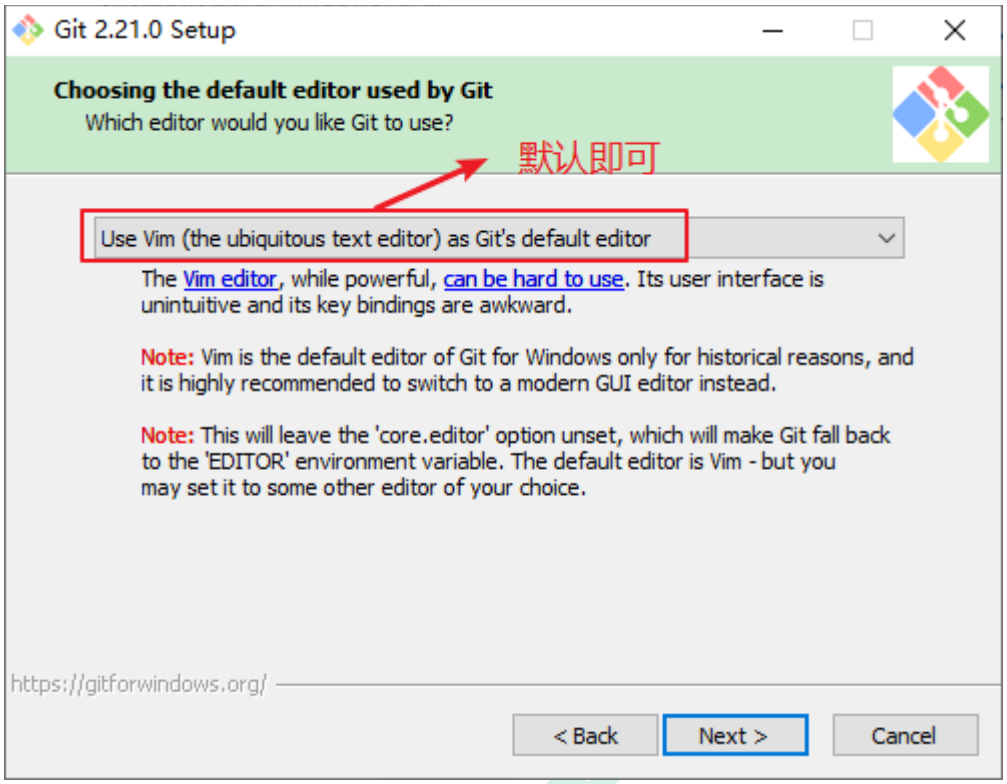

3) 点击 Next



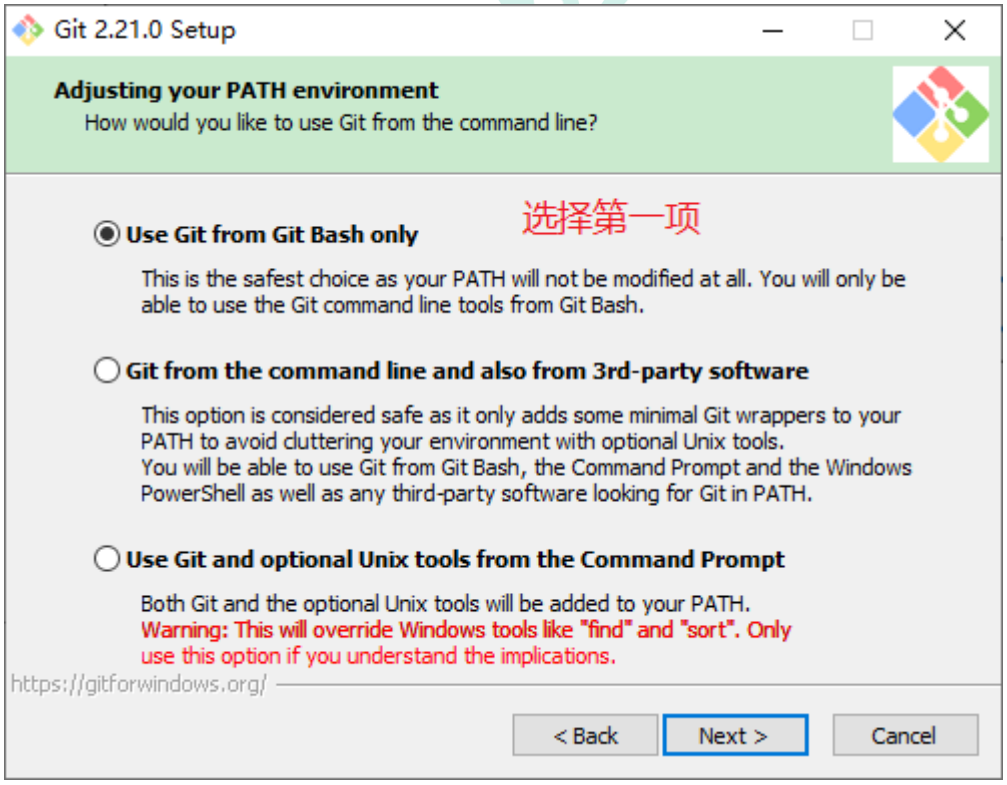

4) 点击 Next



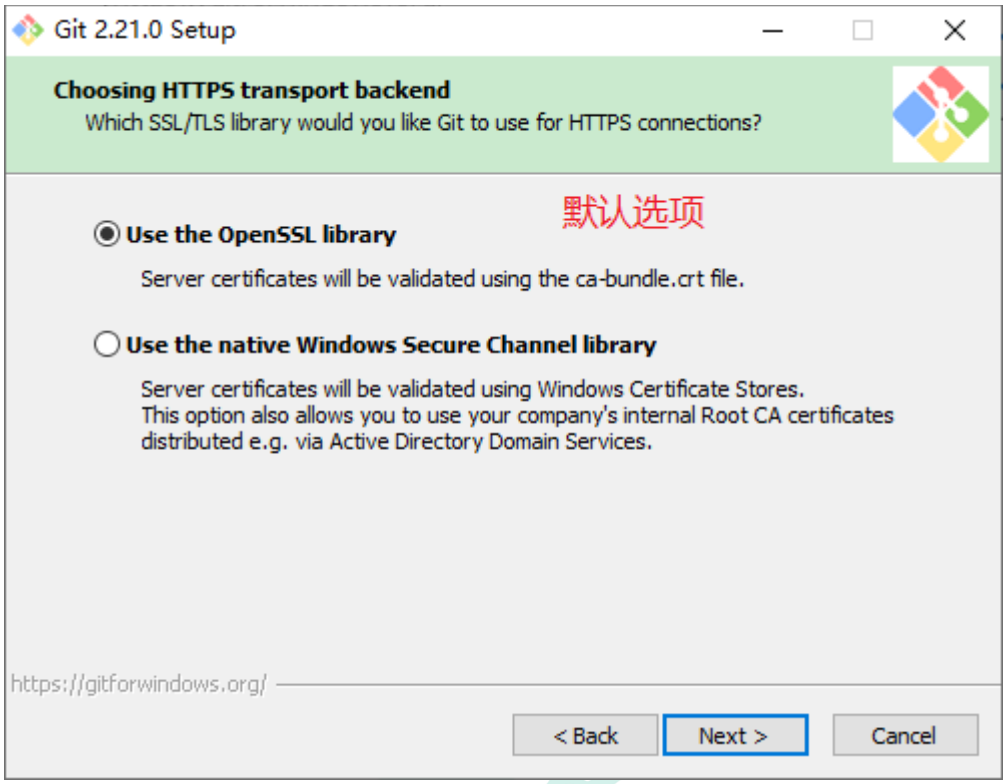

5) 点击 Next，选择默认的编辑器



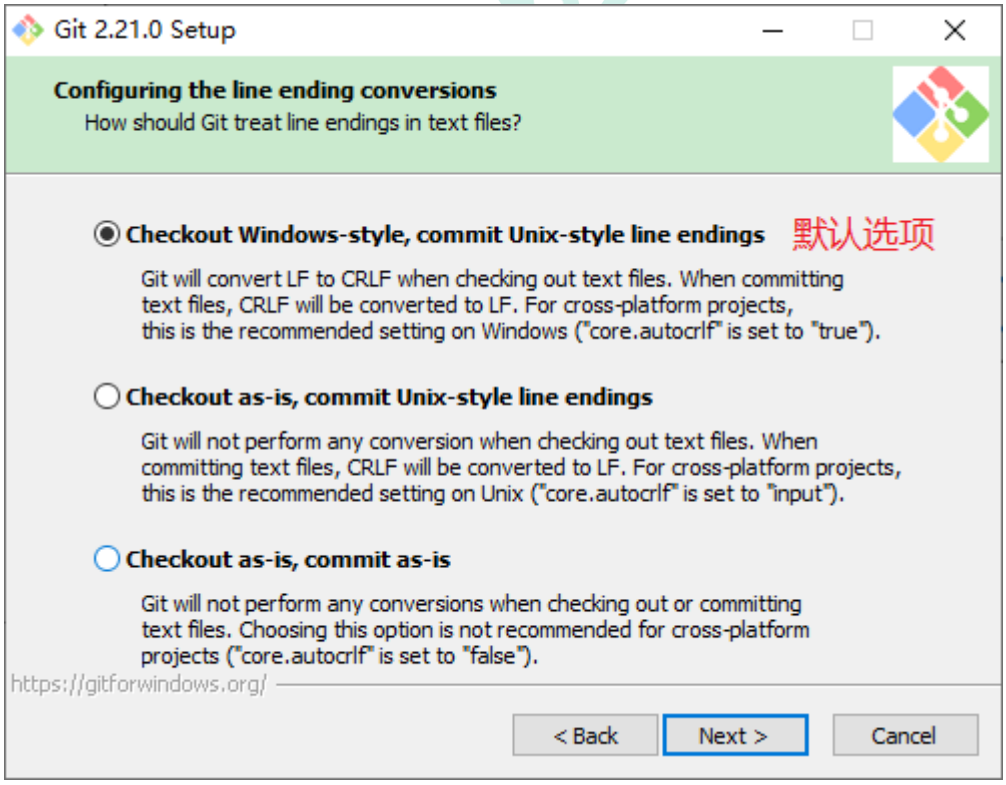

6) 点击 Next，选择第一项



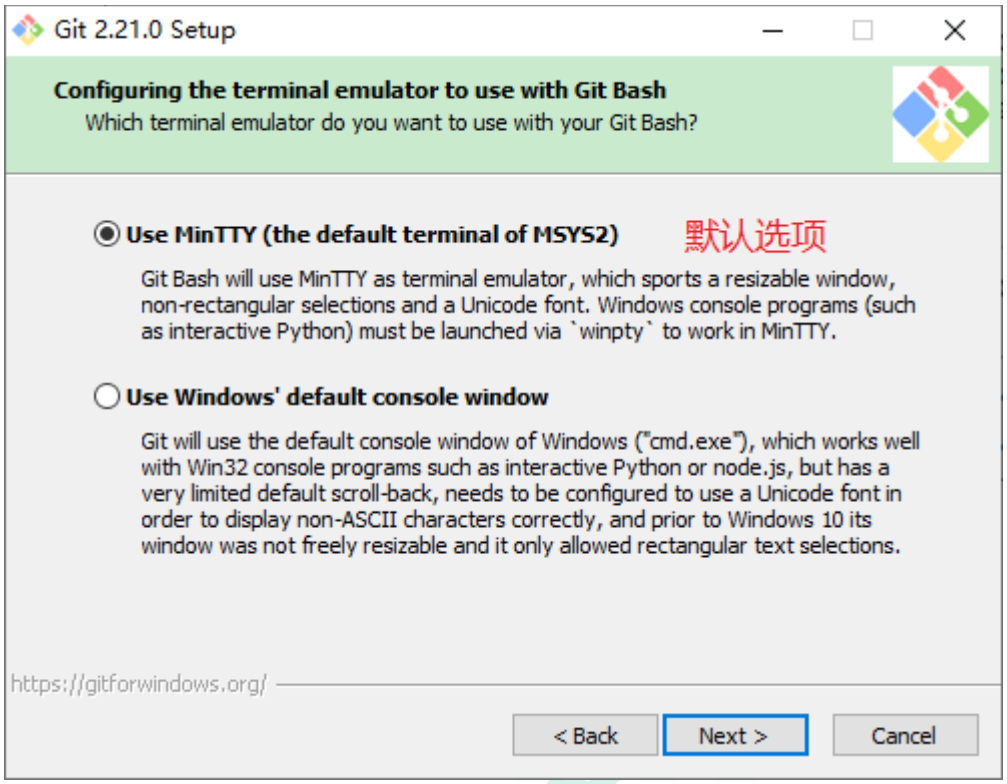

7) 点击 Next



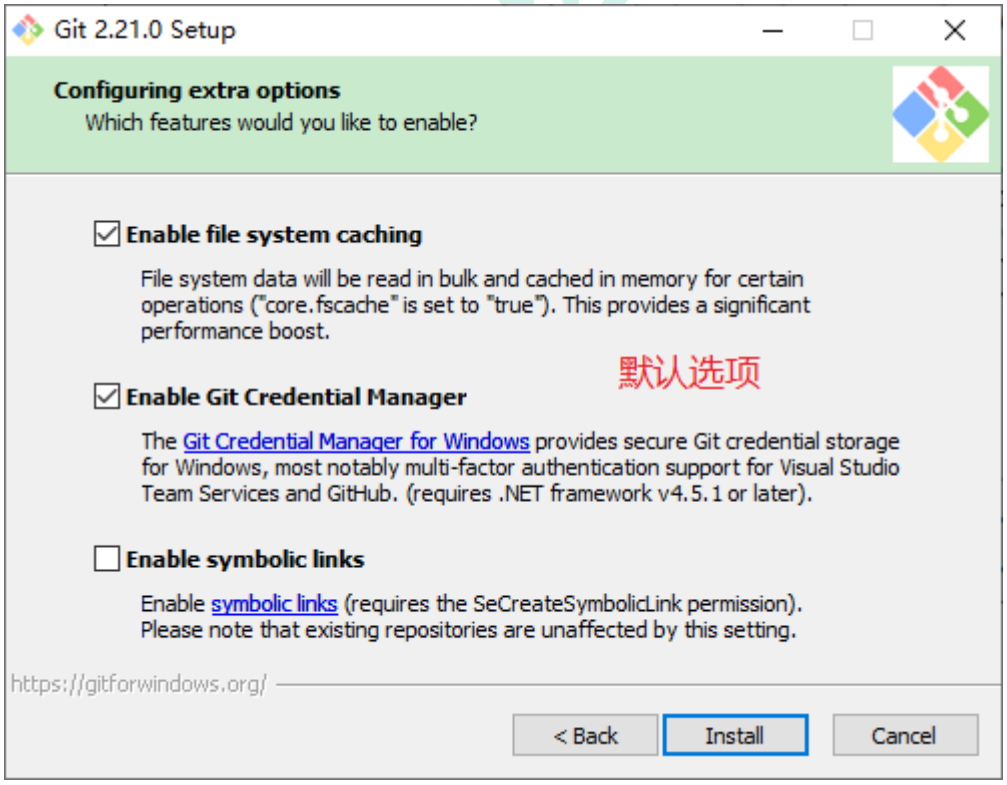

8) 点击 Next



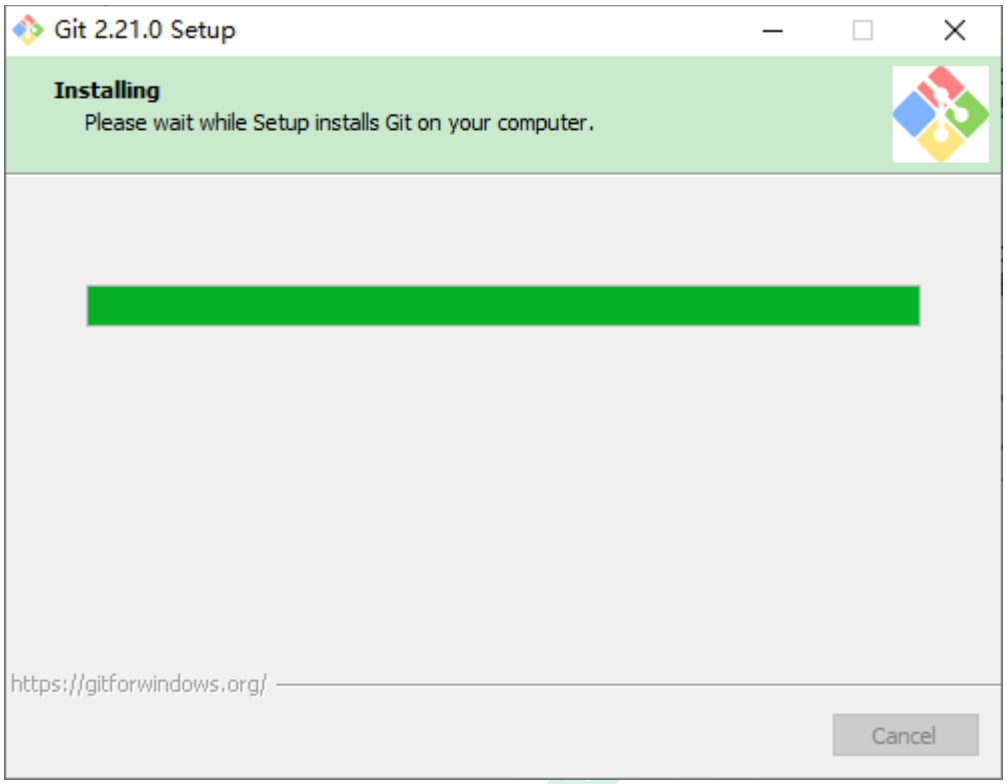

9) 点击 Next



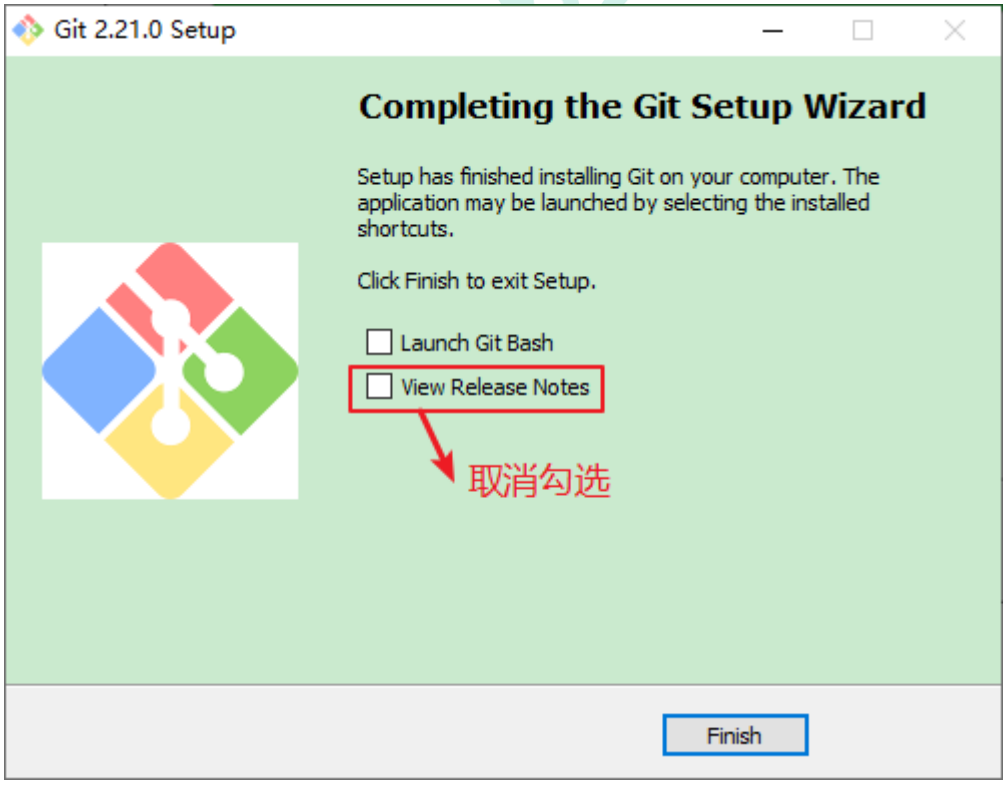

10) 点击 Next




11) 点击 Install 开始安装




12) 点击 Finish 安装完成

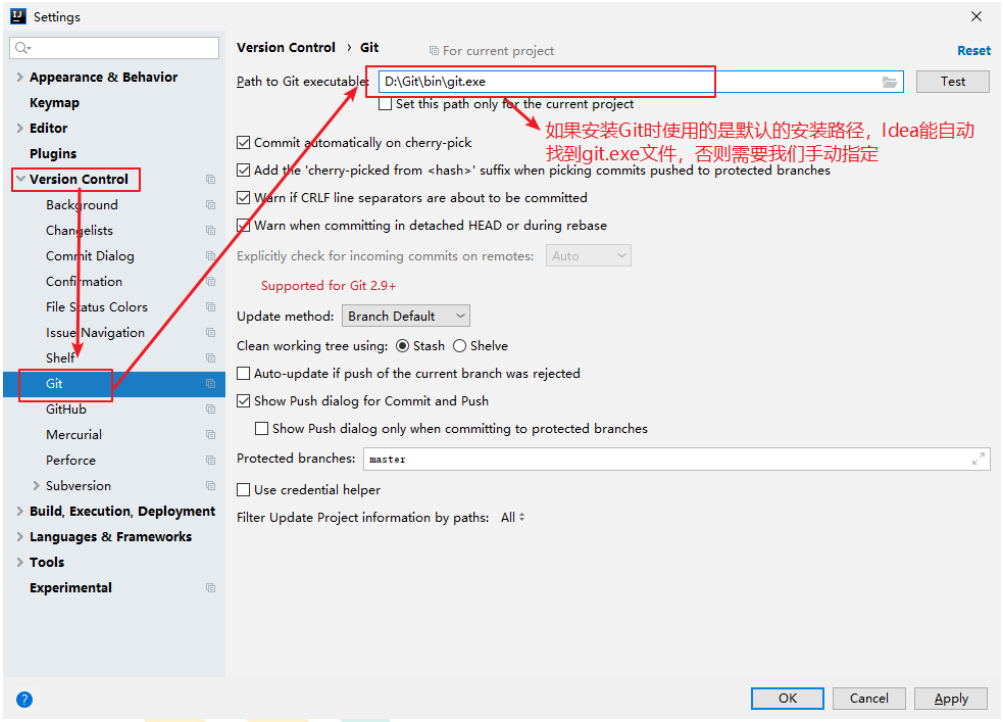


# 4.2 全局配置

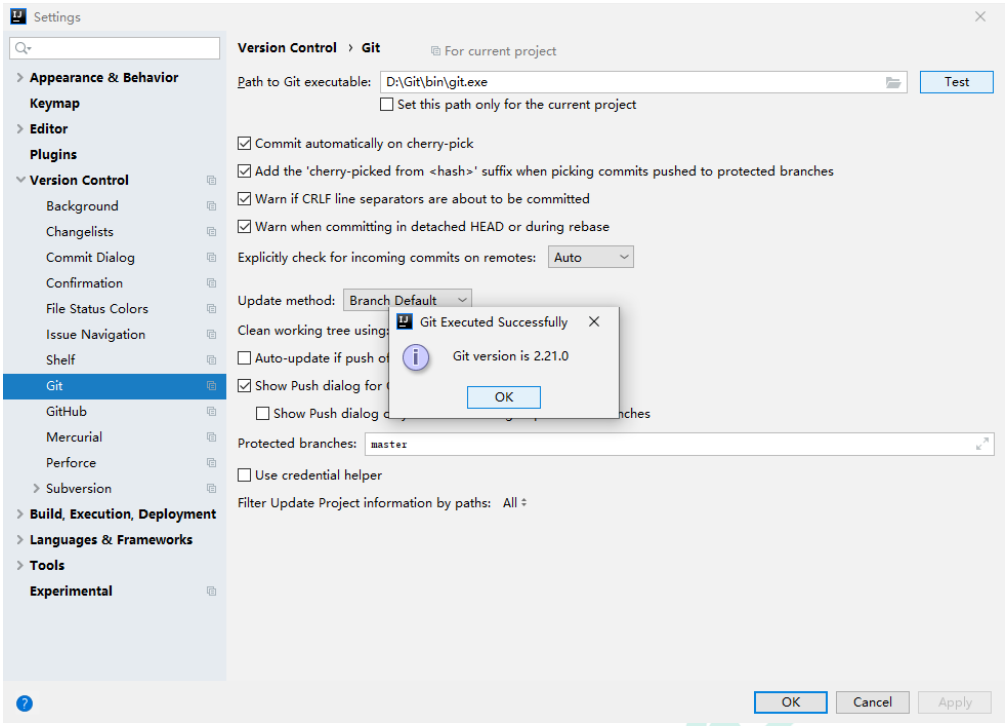
## 4.2.1 配置 Git 核心程序

1) 配置 git.exe 执行文件

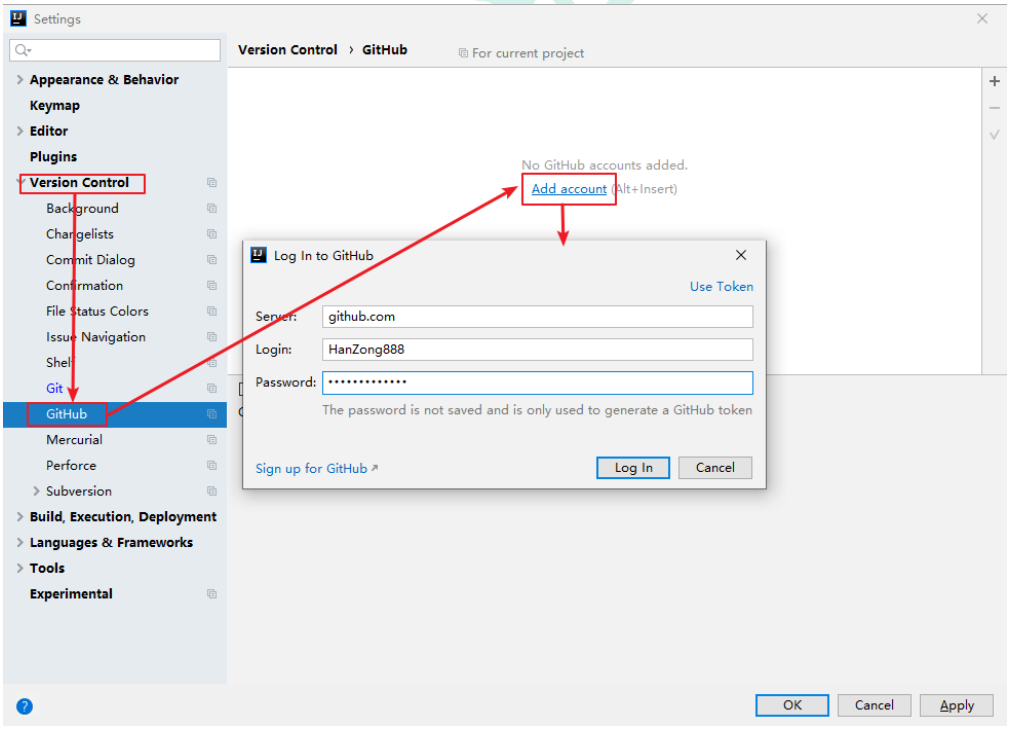
点击工具栏中的 settings→Version Control→Git

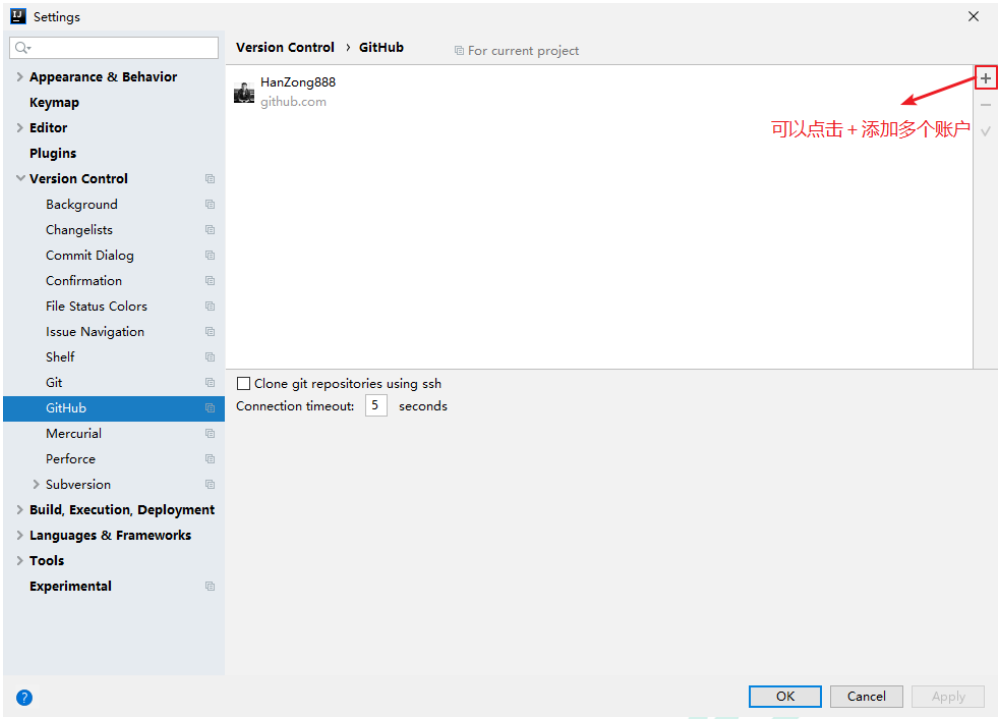



2) 点击 Test 测试




## 4.2.2 配置 GitHub 账户



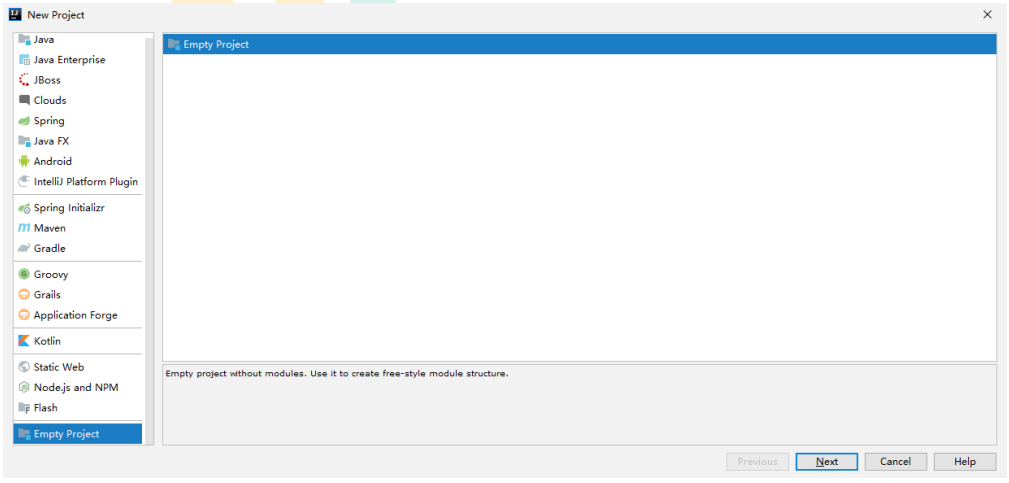



3) 点击 OK 完成配置

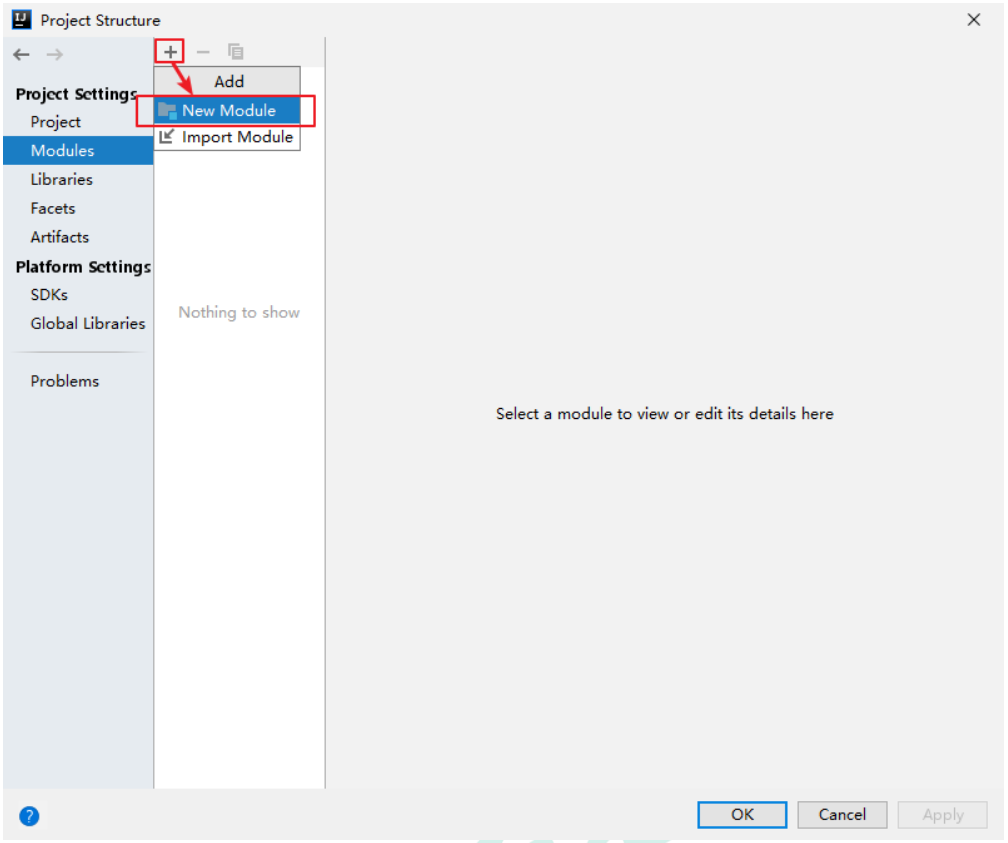
# 4.3 创建本地库

## 4.3.1 新建本地库

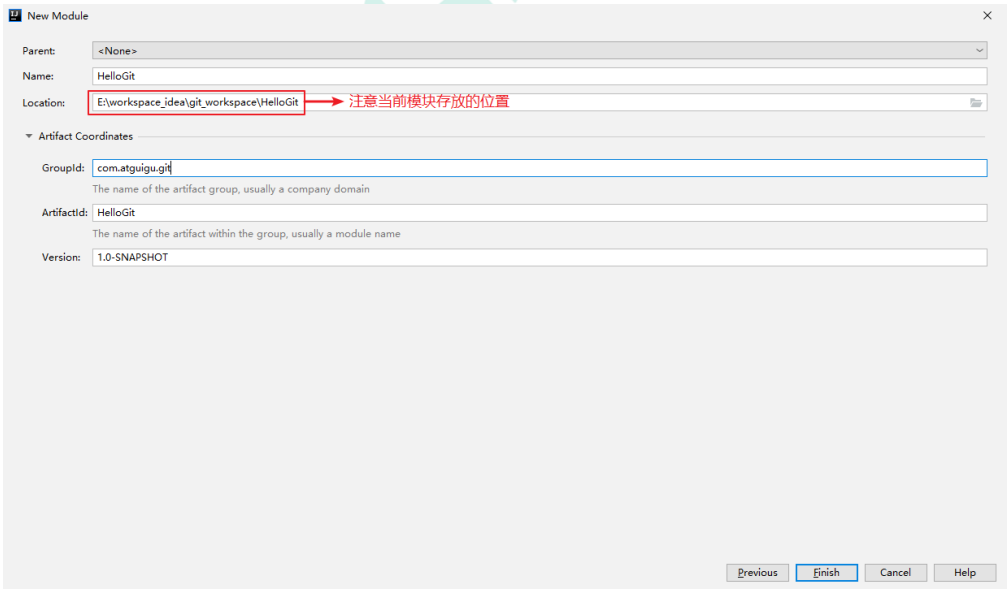
1) 创建一个 Empty Project



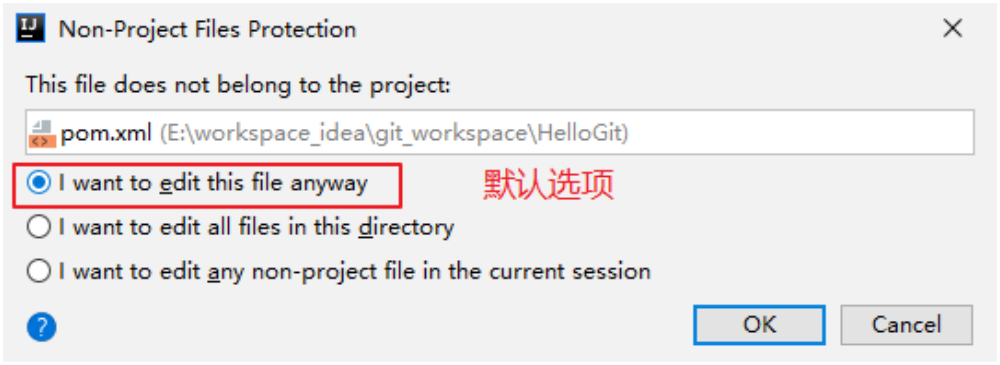

2) 在空工程（Empty Project）中添加模块（Modules）



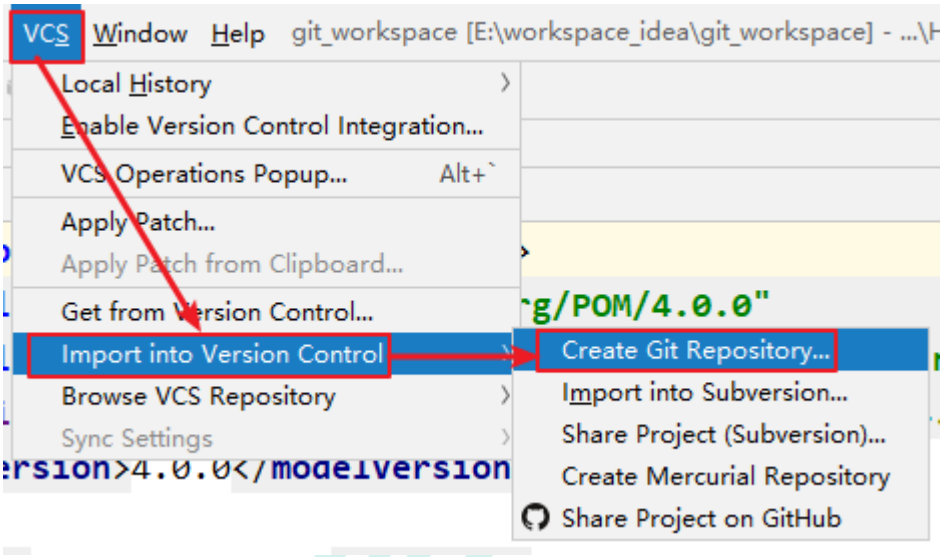

3) 添加一个 Maven 模块



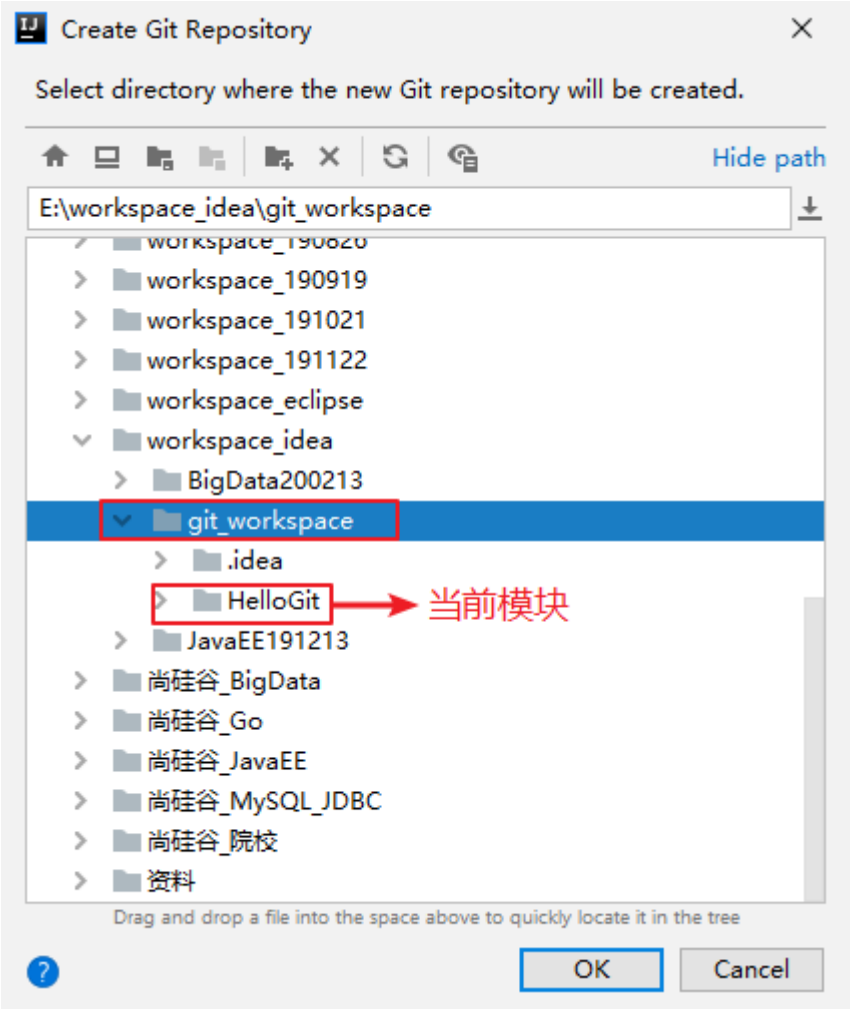

4) 选择我无论如何都想编辑这个文件



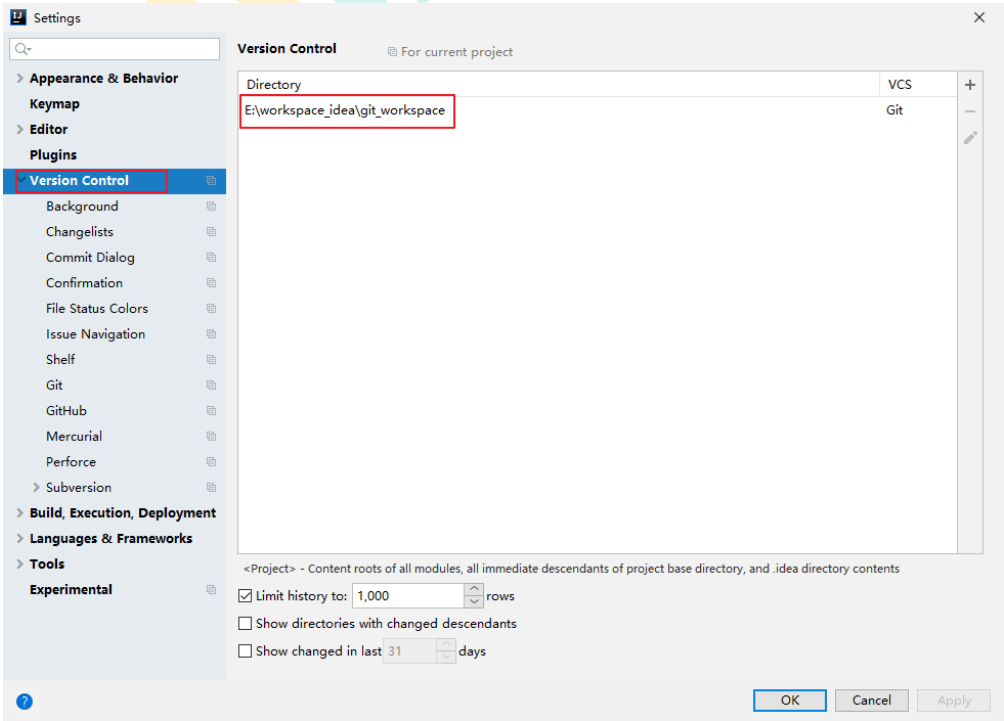

5) 创建本地库

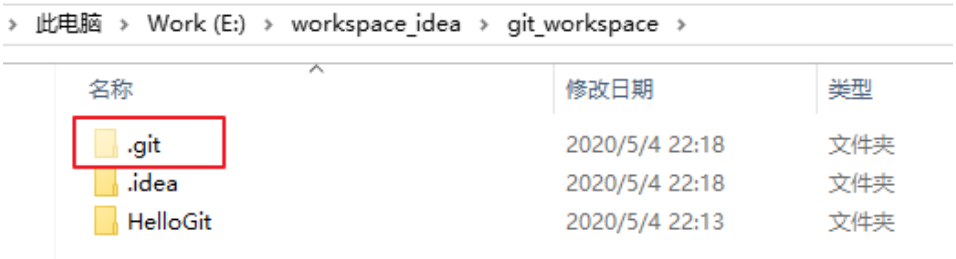



6) 选择当前模块的上一级目录



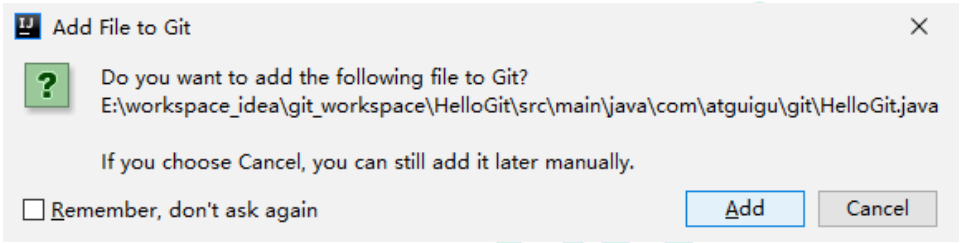

7) 点击 OK 本地库创建成功



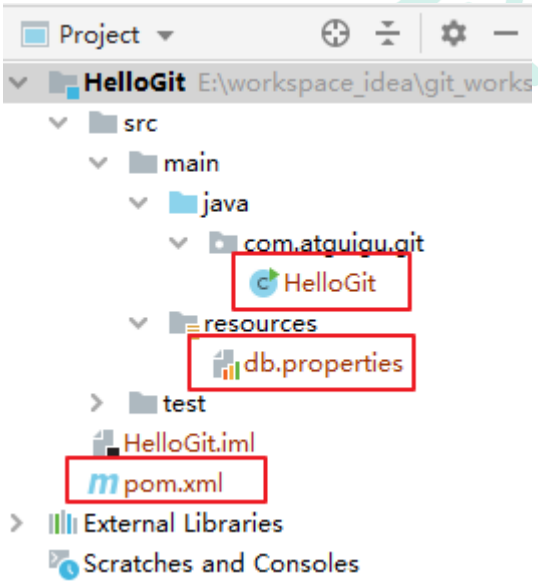



8) 同时工具栏会出现 Git 相关操作


9) 在 src/main/java 和 src/main/resources 目录下创建文件，创建了新文件之后会提示是否添加到暂存区

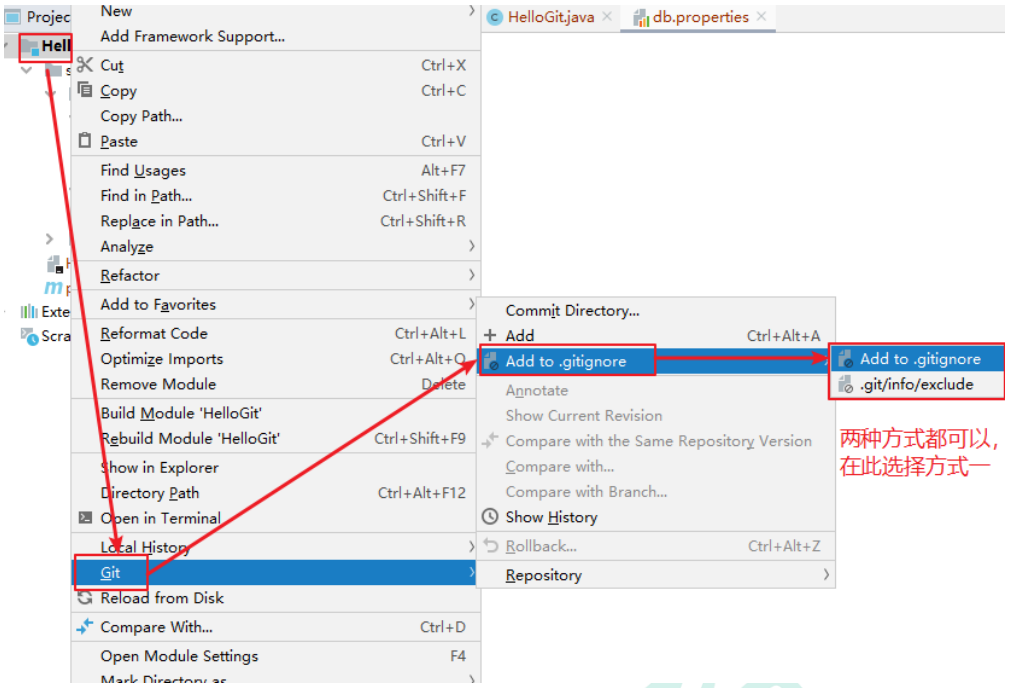



10) 如果点击了 Cancel，此时文件只存在于工作区，文件的状态如下图：



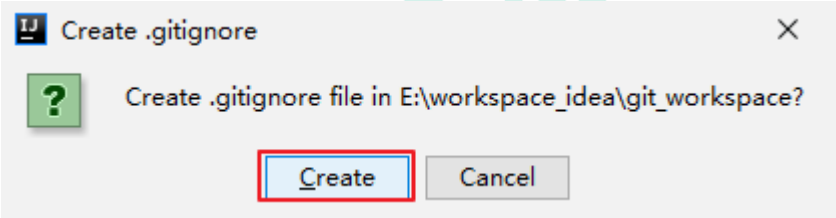

11) 设置忽略文件

在模块上右键，选择一种方式设置忽略的文件




Tips：方式二只需要修改.git/info 目录下的 exclude 文件即可，不需要创建新的文件，所以建议大家选择这种方式。

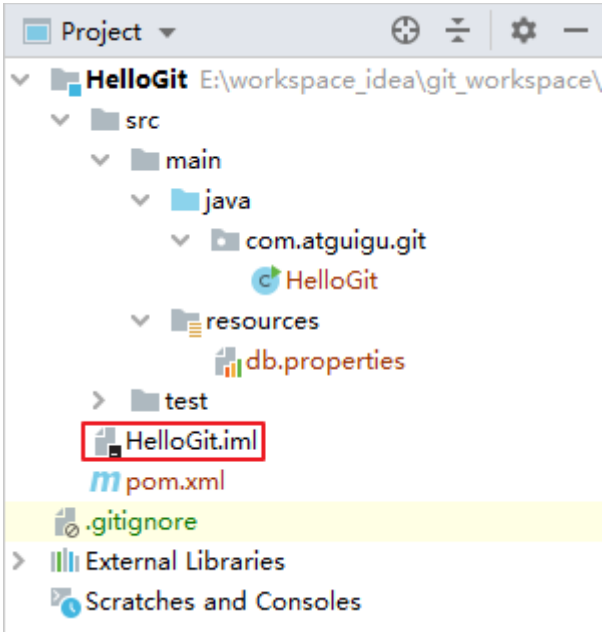
12) 弹出提示框，提示是否在当前工作区创建.gitignore 文件



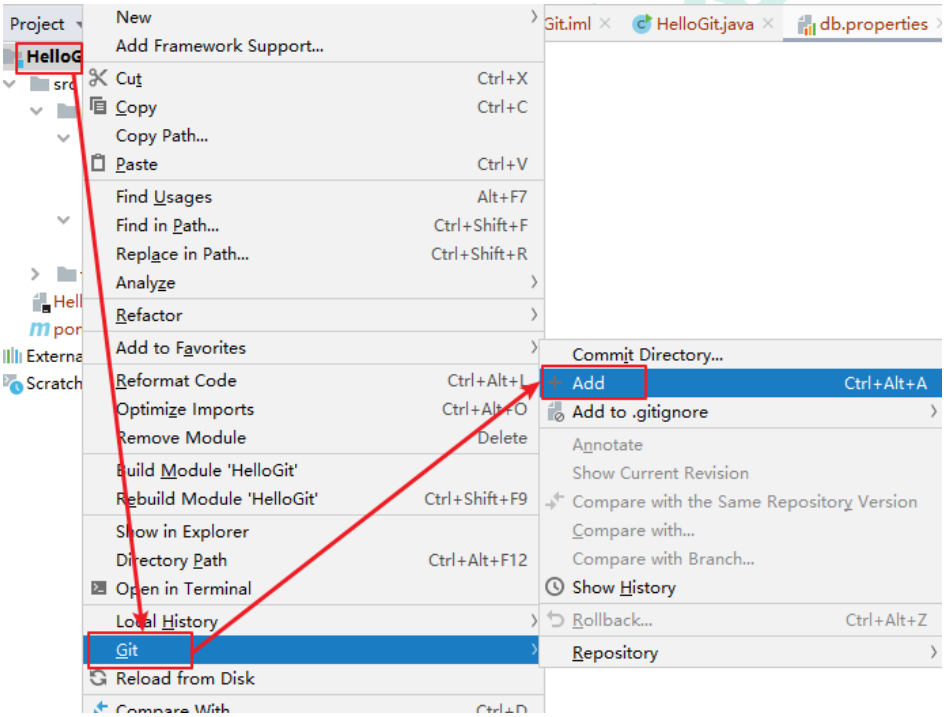

13) 点击 Create，添加如下内容

```
.idea
*.iml
```

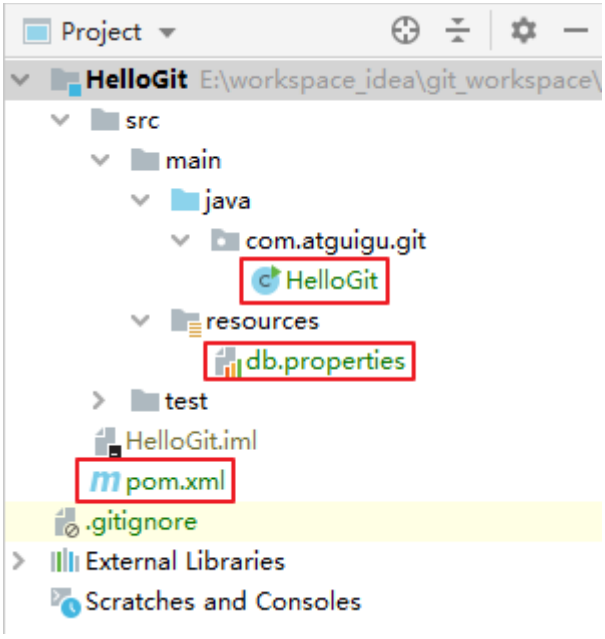
14) 创建.gitignore 文件之后发现被忽略的文件变成了灰色（有时候可能需要刷新模块或重启 Idea 才能看到）



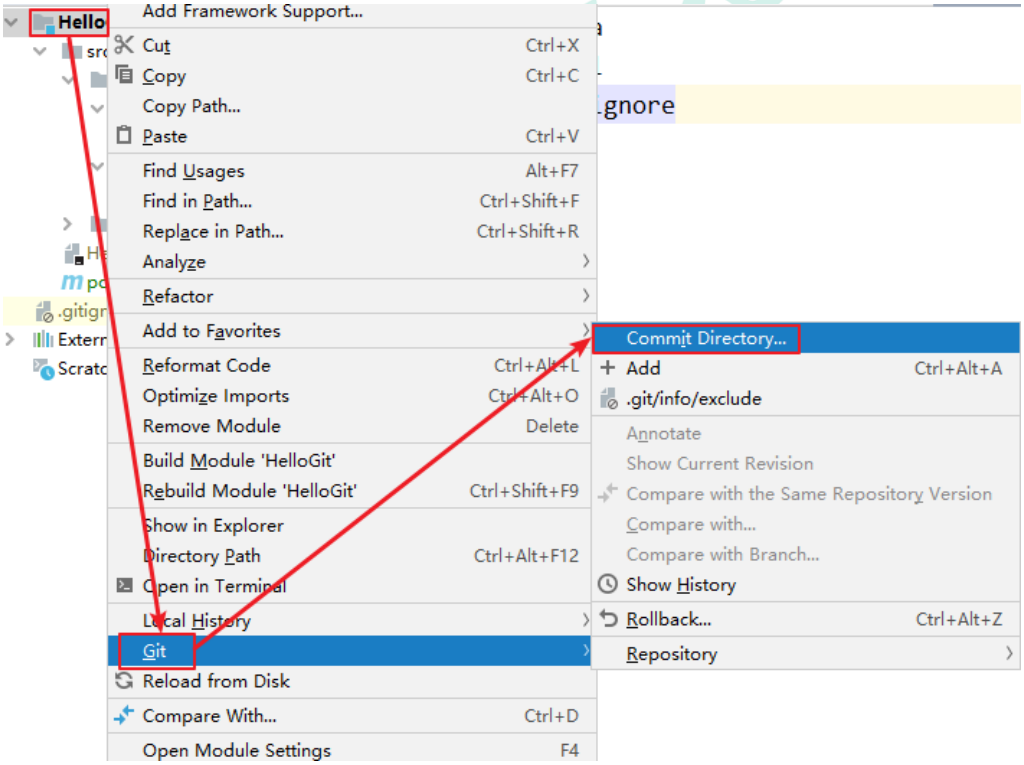

15) 在模块上右键将文件添加到暂存区




16) 添加到暂存区之后文件的状态如下图：

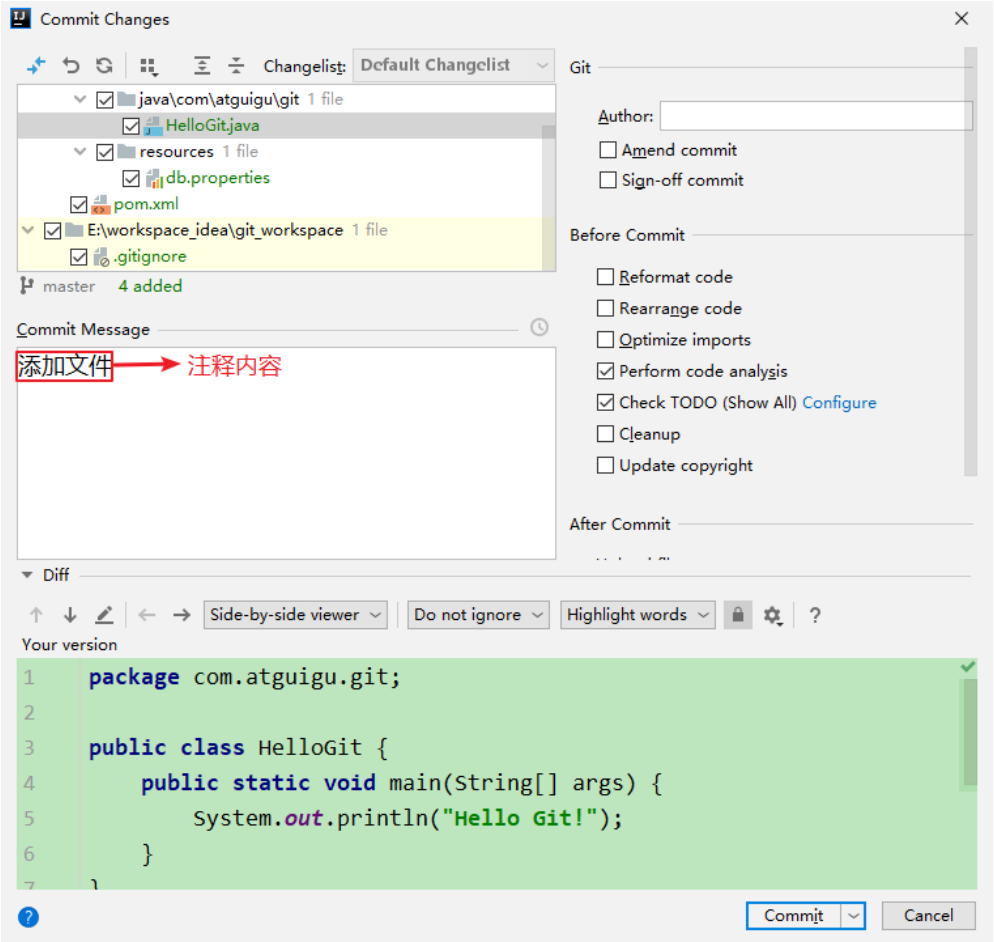



17) 在模块上右键或点击工具栏将文件添加到本地库

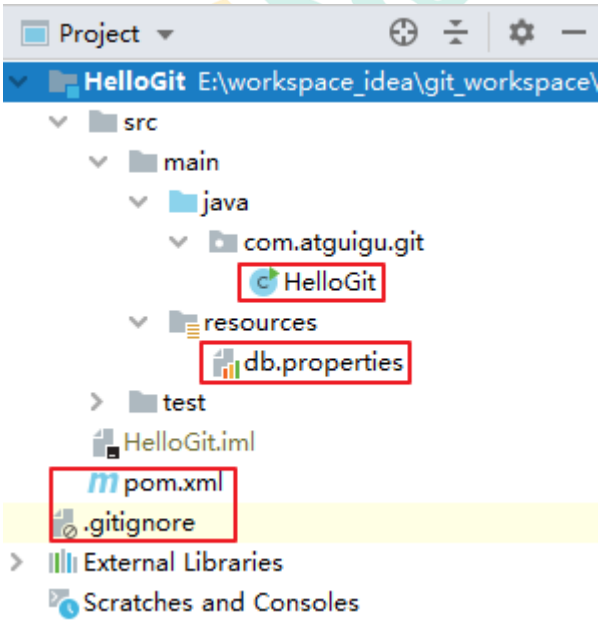



工具栏


18) 添加注释内容后提交



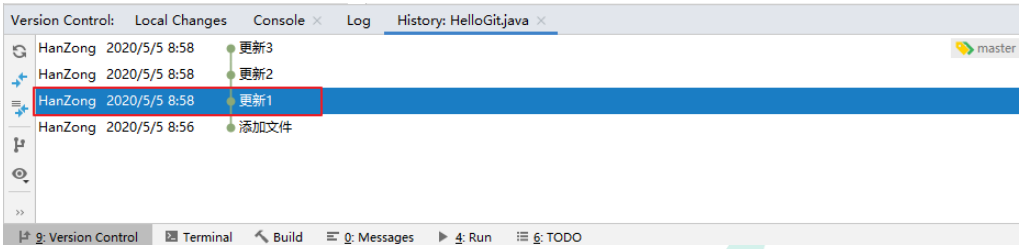

19) 提交到本地库之后文件的状态如下图：



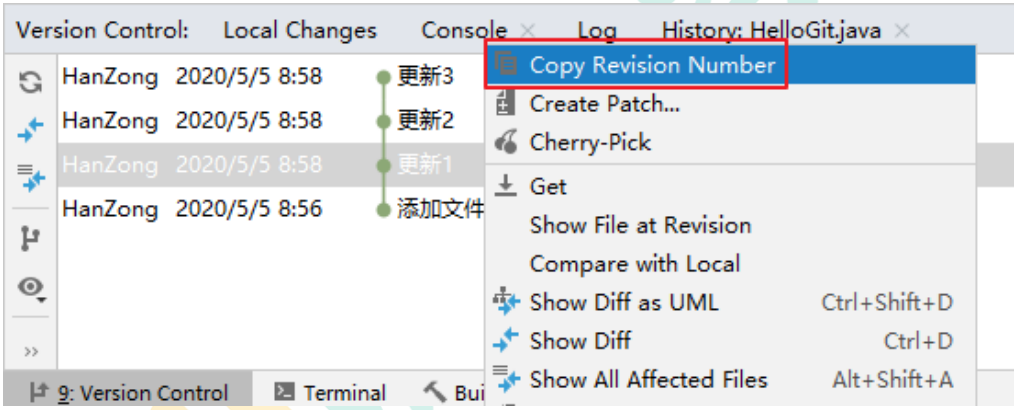
### 4.3.2 版本间切换

1) 在模块上右键或者点击工具栏查看历史

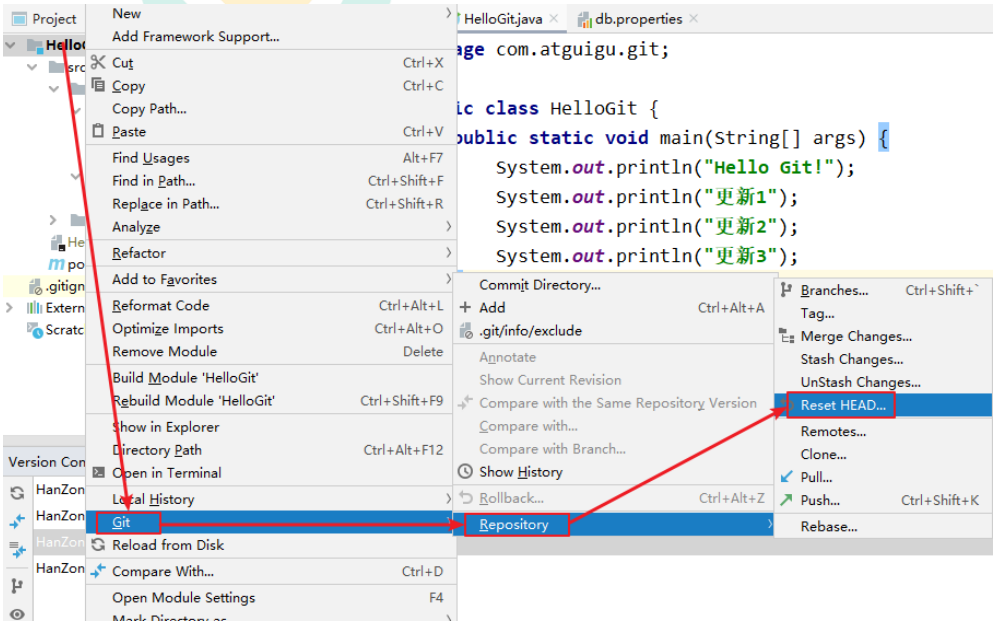

2) 选择要切换的版本



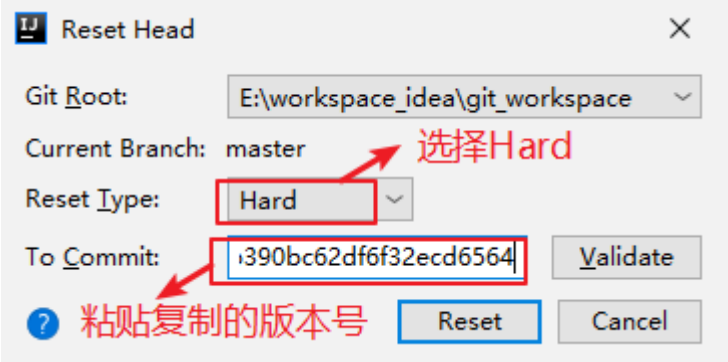

3) 右键→Copy Revision Number



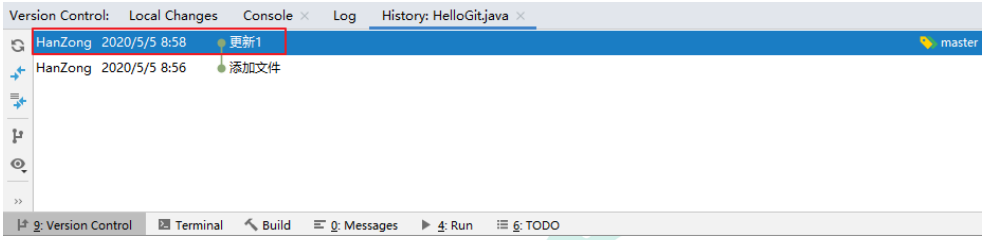

4) 在模块上右键



5) 选择 Hard 并粘贴版本号

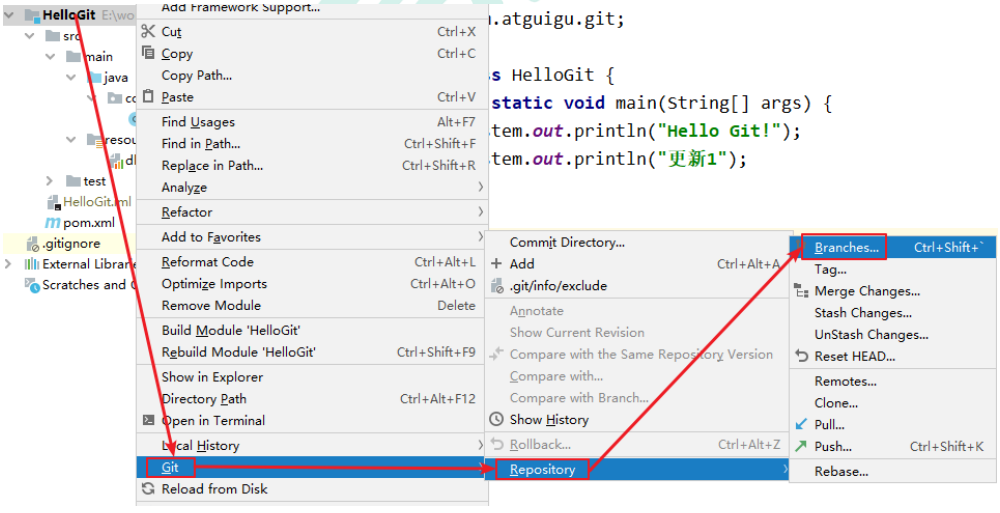



6) 版本切换成功

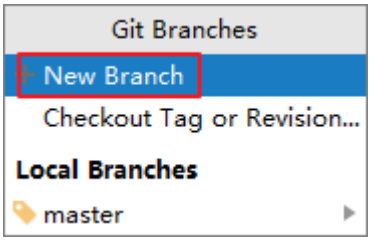



## 4.3.3 创建分支

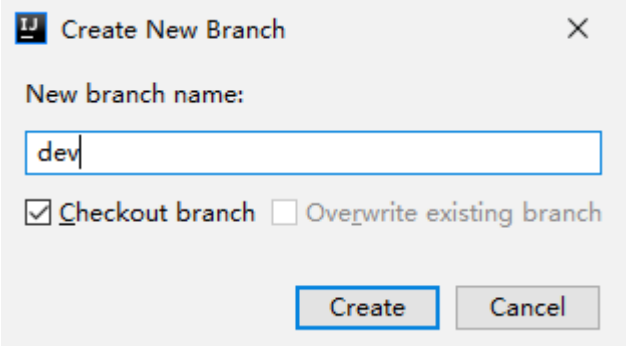
1) 在模块上右键




2) 点击 New Branch

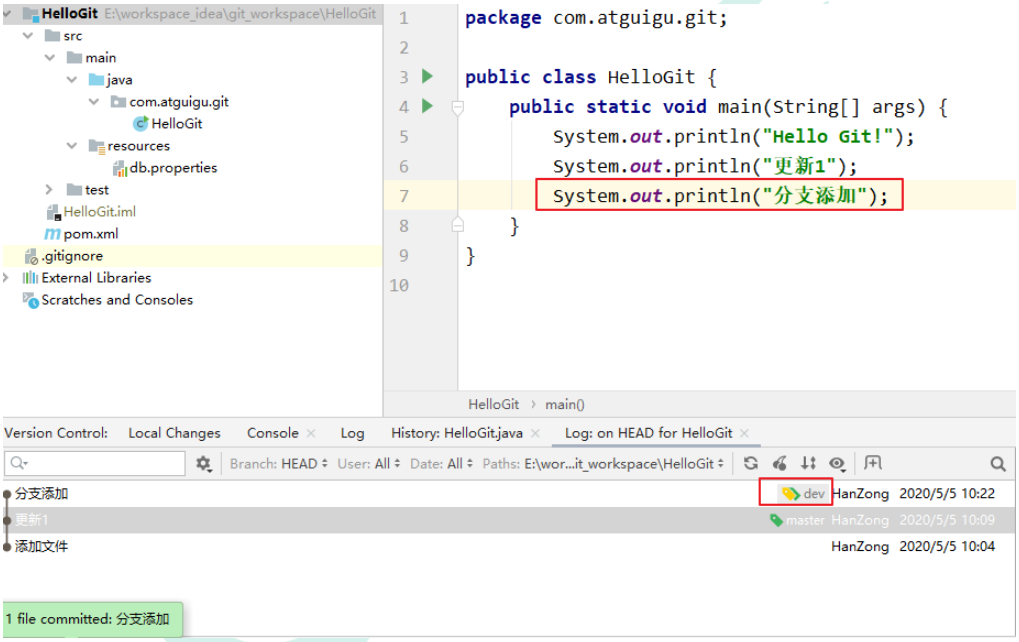


3) 给新分支命名



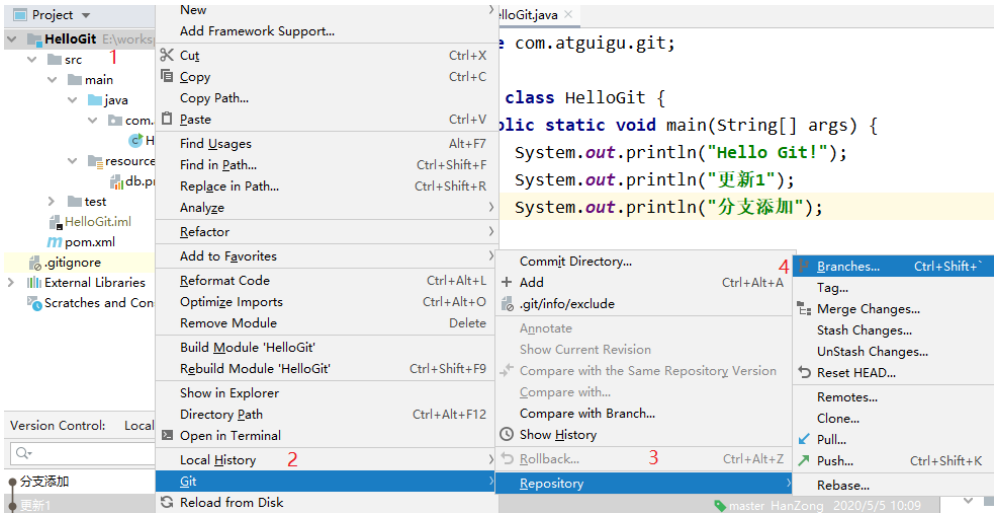

4) 点击 Create 后自动切换到新分支

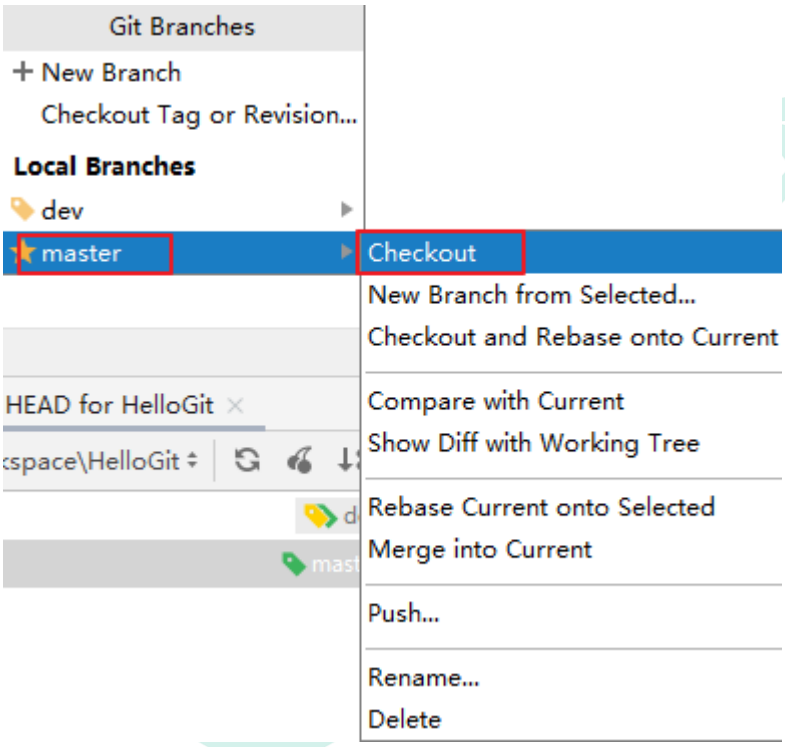
5) 在新分支添加新的代码并提交



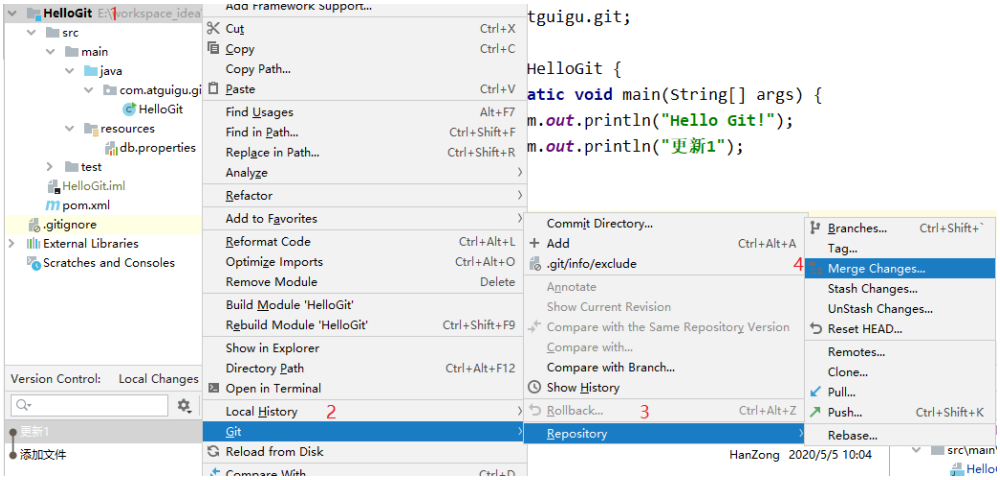

## 4.3.4 合并分支

1) 在模块上右键切换到主干

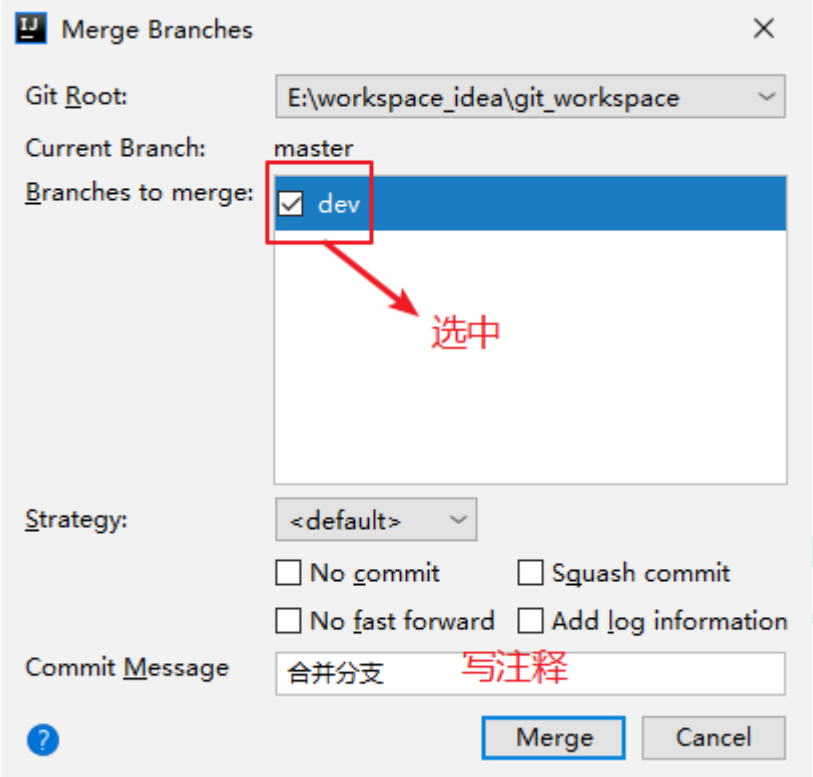


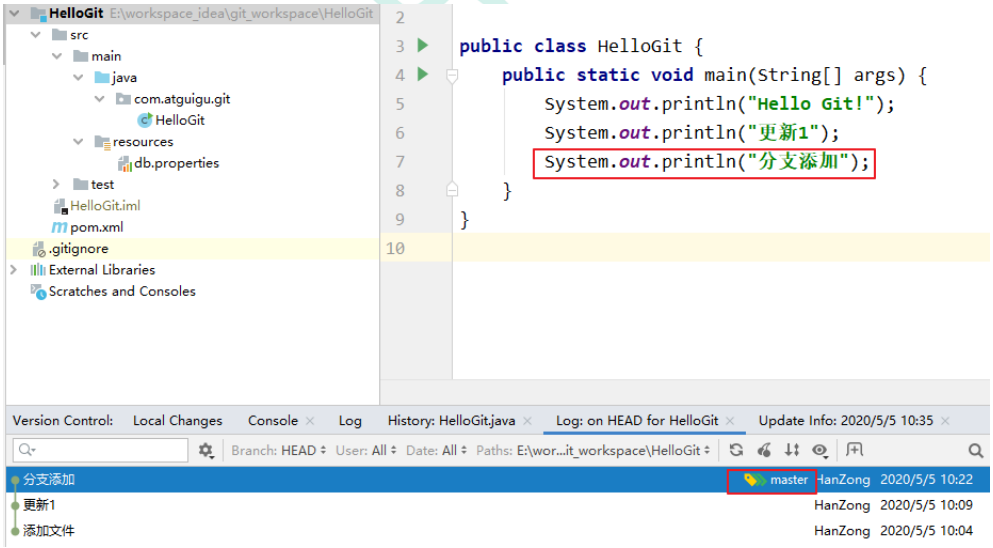

2) 在模块上右键选择合并改变



3) 选择要合并的分支



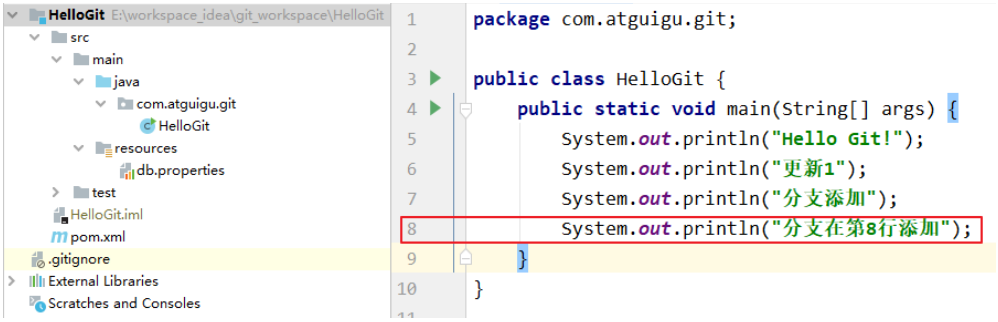

4) 合并成功



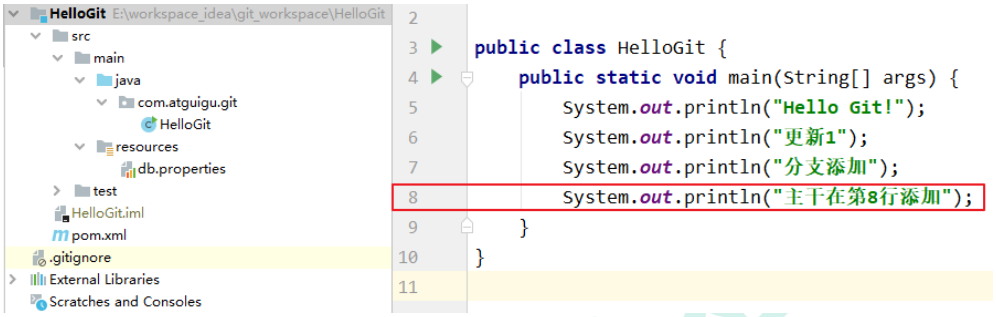

## 4.3.5 解决冲突

让主干和分支在同一个位置添加一行代码

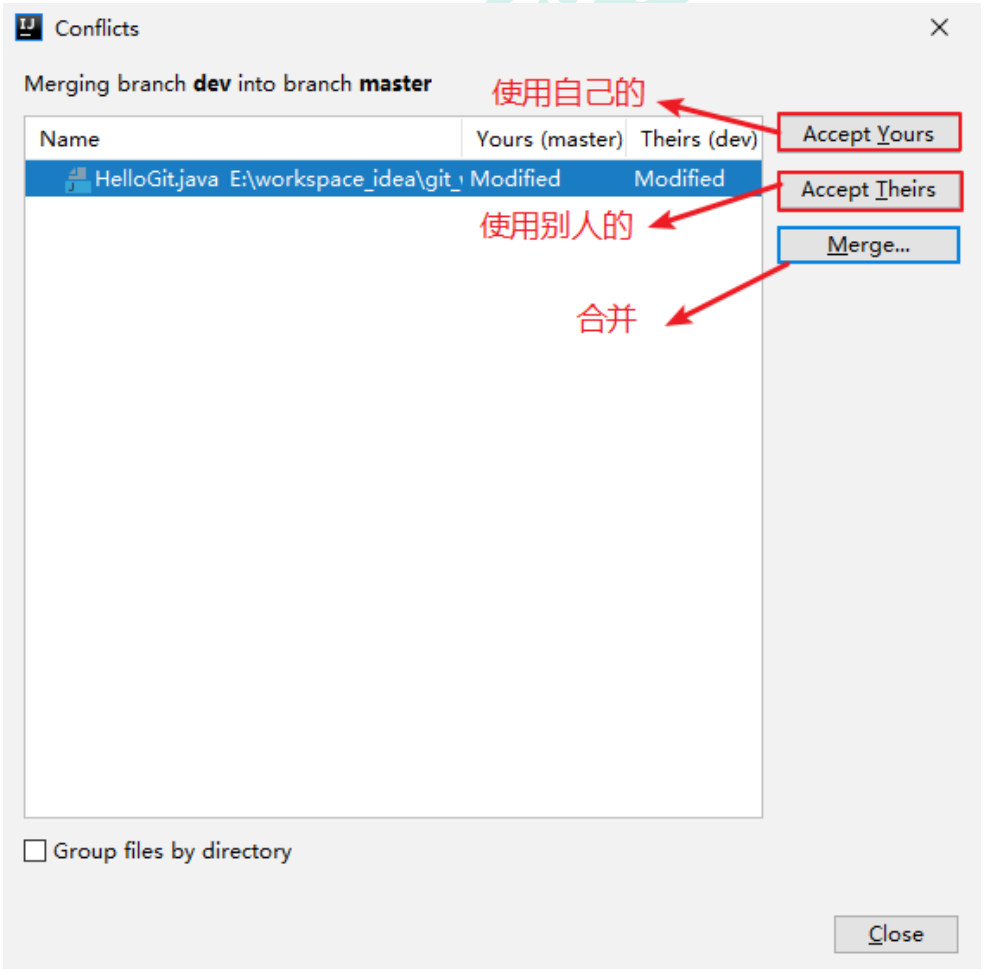
1) 分支添加内容，并添加到暂存区和本地库



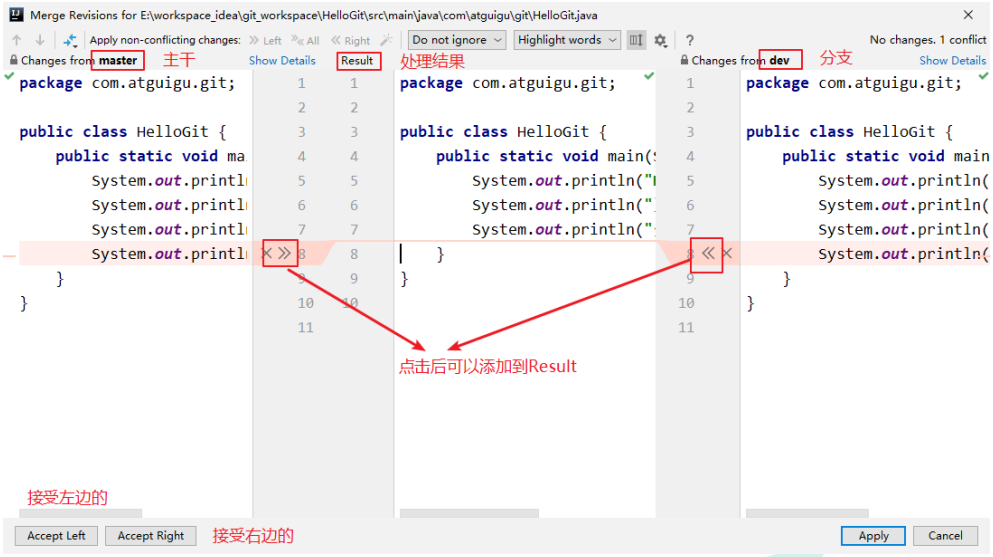

2) 主干添加内容，并添加到暂存区和本地库



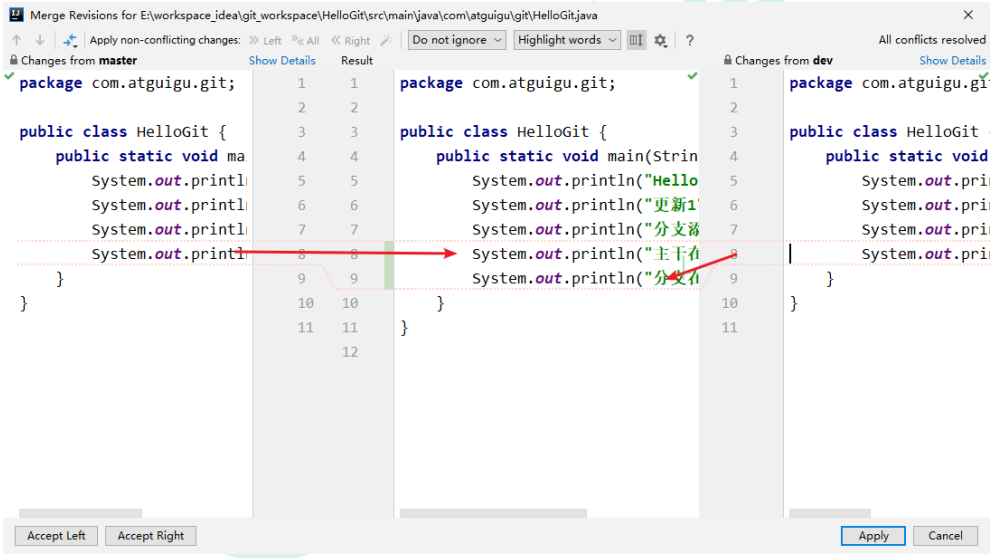

3) 在主干合并分支内容，出现冲突



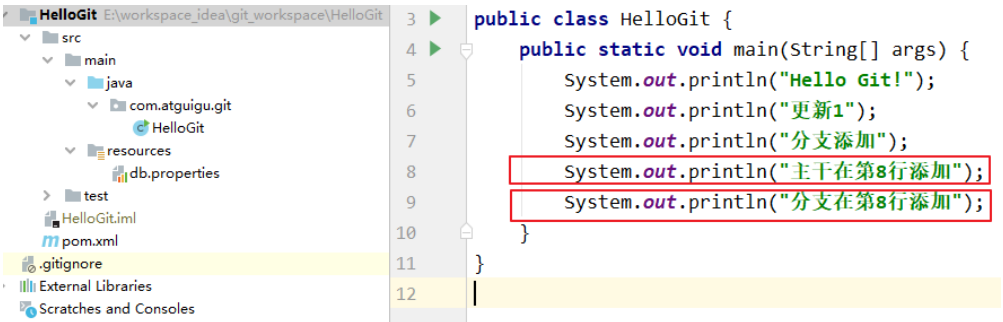
4) 选择合并，出现处理窗口




5) 处理之后



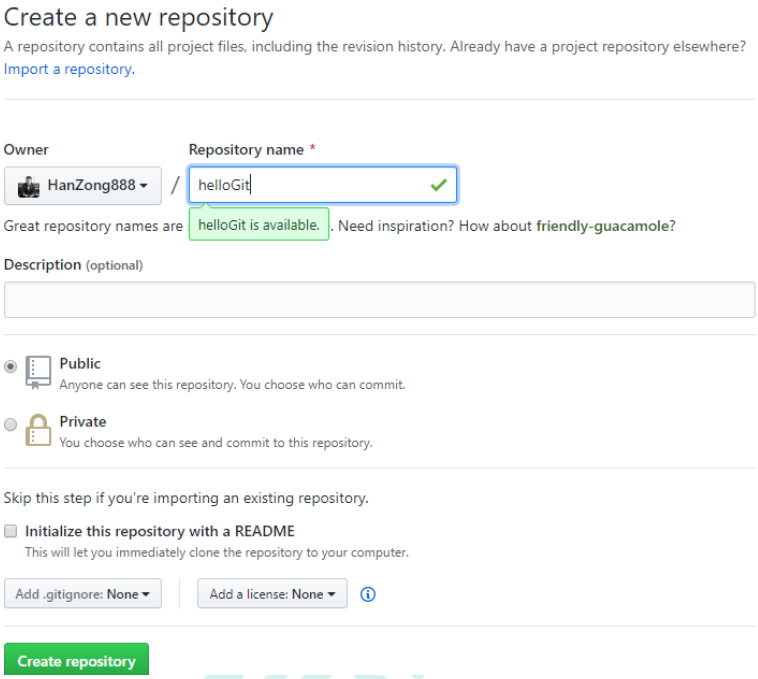

6) 点击 Apply 应用



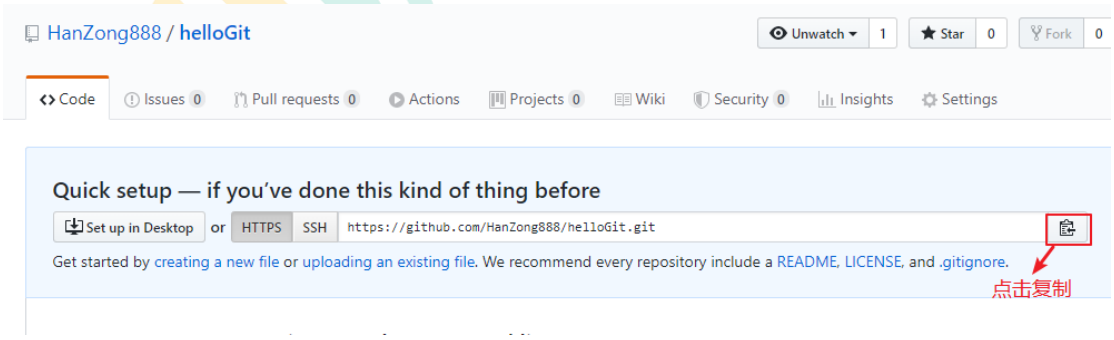
# 4.4 将本地库上传到 GitHub

## 4.4.1 上传本地库

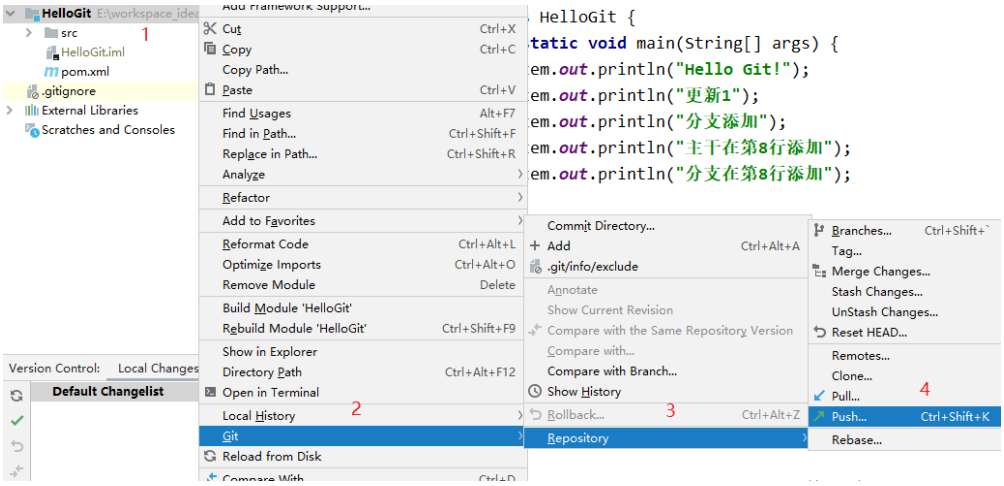
1) 在 GitHub 网站上创建仓库



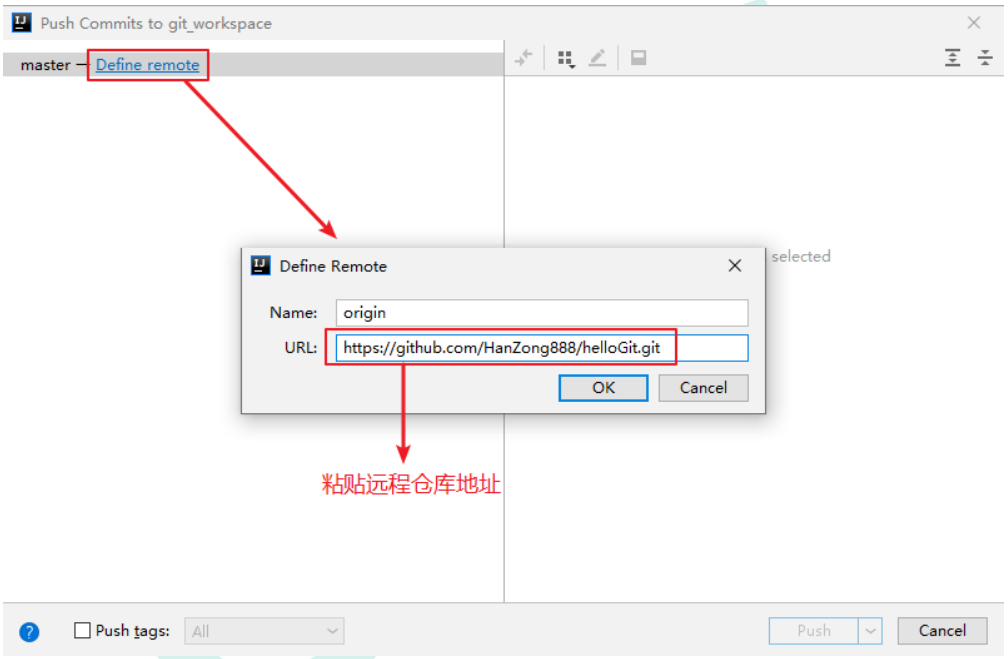

2) 复制仓库地址



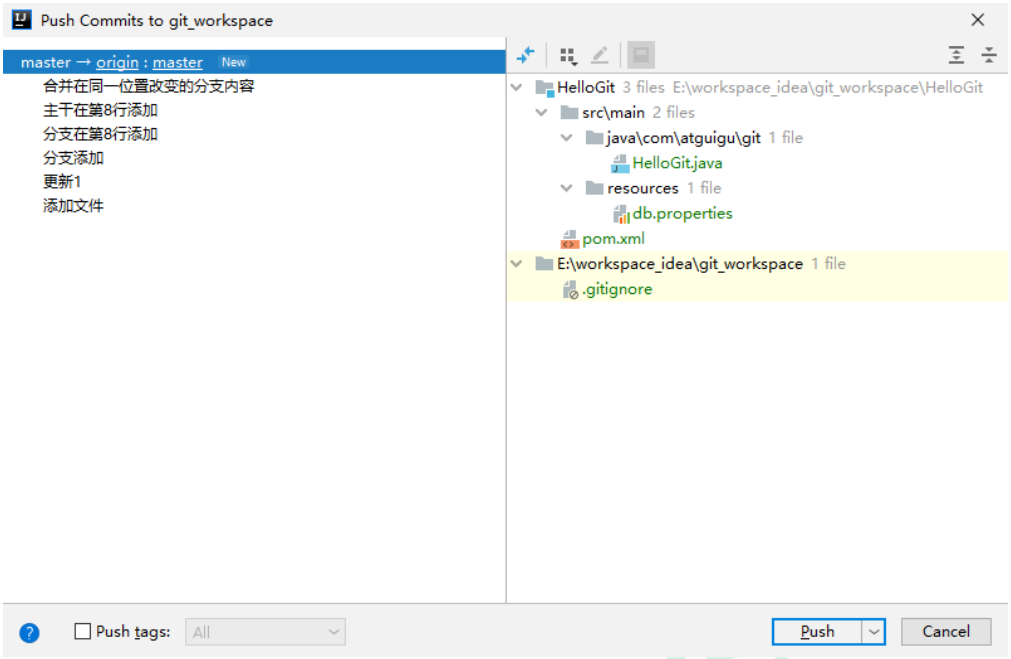

3) 在 Idea 中的模块上右键



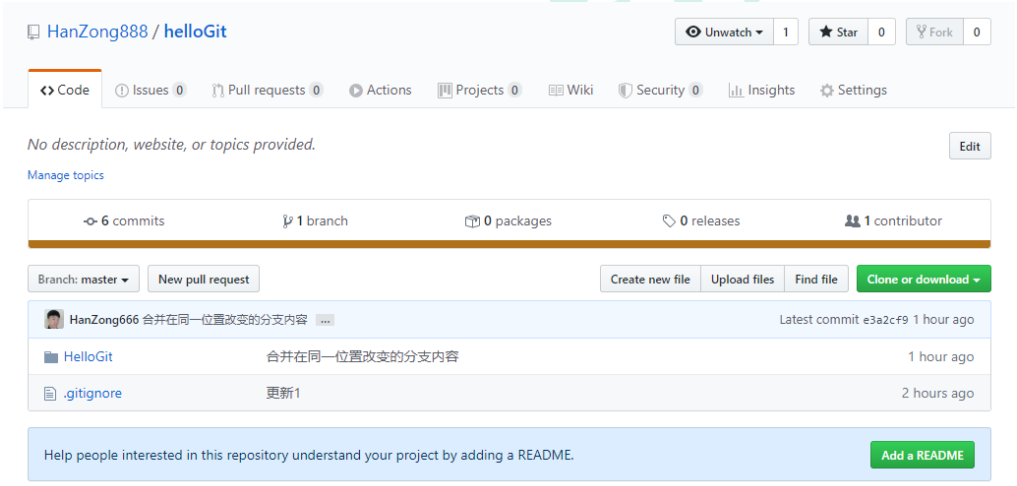

4) 设置远程地址别名




5) 点击 Push 推送到 GitHub 仓库



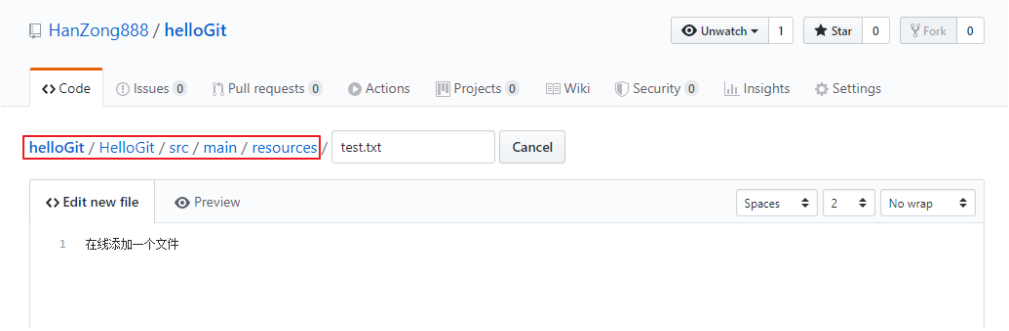

6) 上传成功



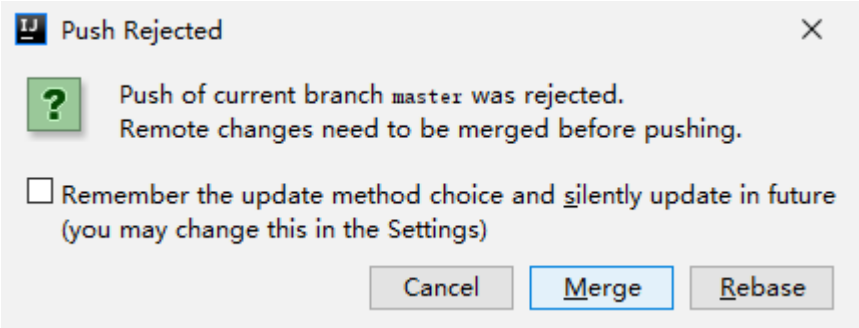

## 4.4.2 更新本地库

正常情况下是合作伙伴上传新的代码到 GitHub，如果此时本地库不更新将无法上传，为了简单起见，我们直接在 GitHub 上在线修改文件。

1) 在 GitHub 上在线添加一个文件

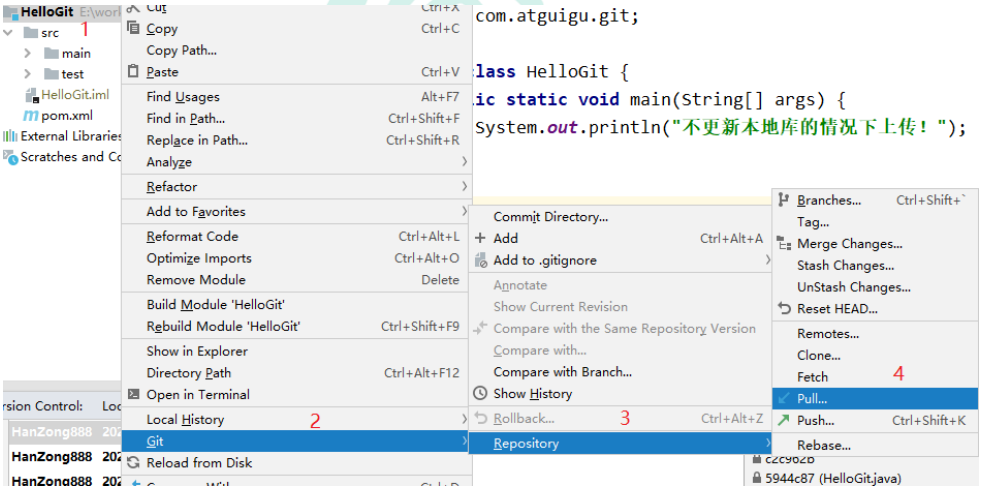



2) Idea 中的本地库也修改文件、添加到暂存库、添加到本地库，然后上传，发现上传被拒绝

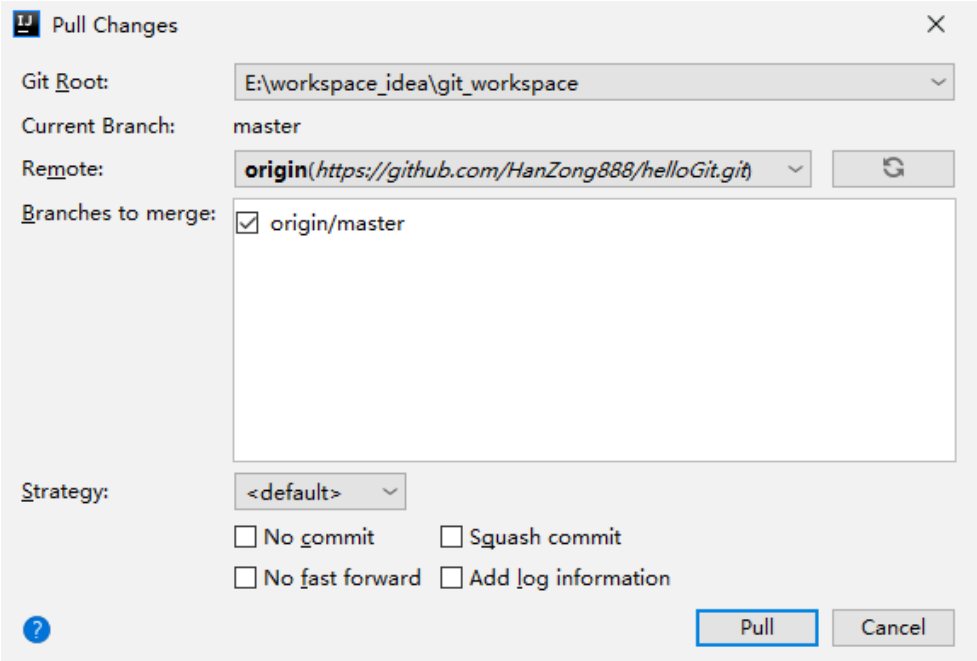



3) 此时点击 Merge 或 Rebase 都可以实现本地库与远程 GitHub 的同步

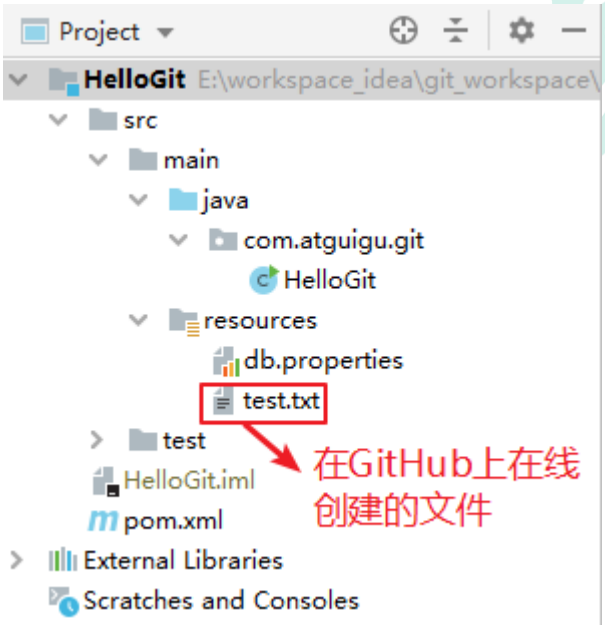
4) 也可以点击 Cancel 之后通过以下方式更新本地库




5) 点击 Pull 将 GitHub 上最新的代码合并都本地库

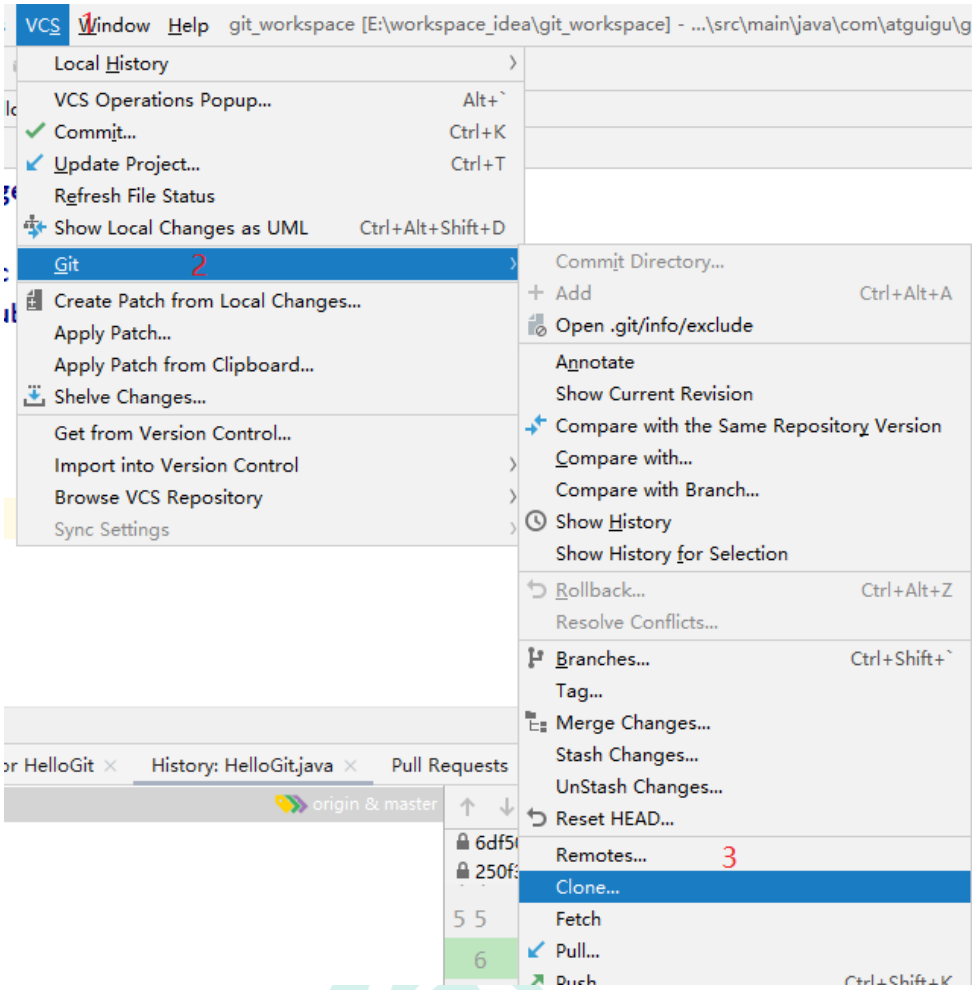



6) 点击 Pull 之后更新本地库成功

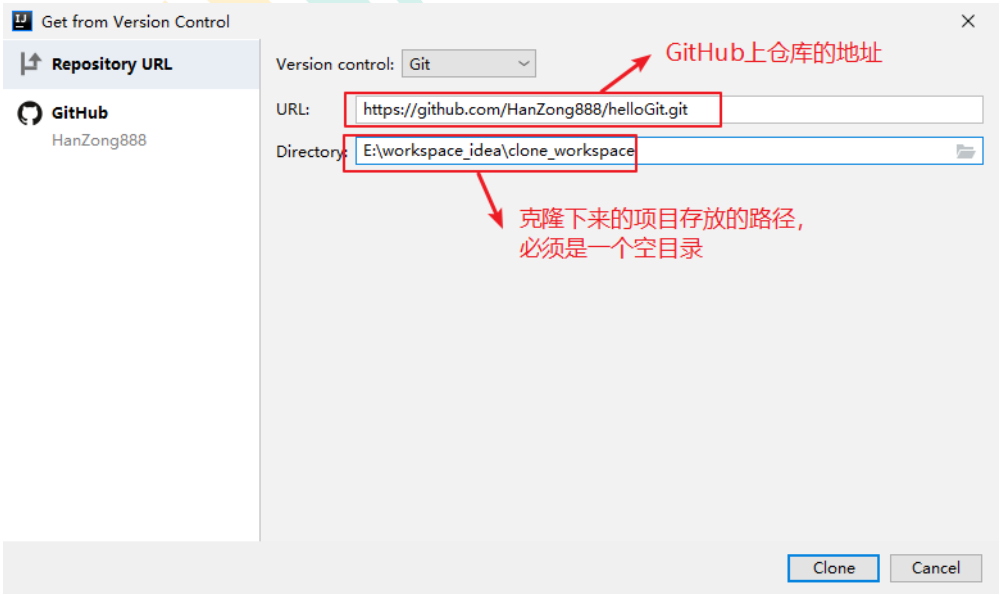



## 4.5 从 GitHub 上克隆项目到本地

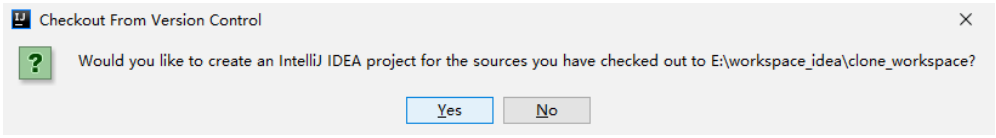
1) 点击 Idea 中的 CVS 选项



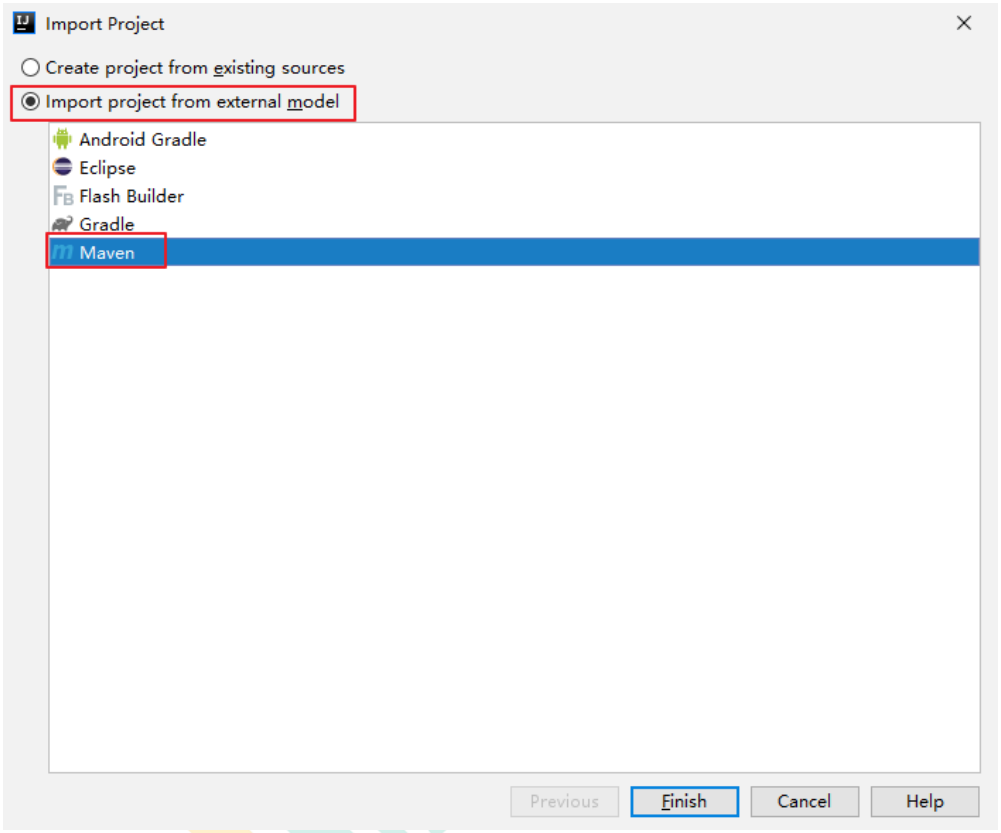

2) 输入 GitHub 中的仓库地址并指定项目的存放路径



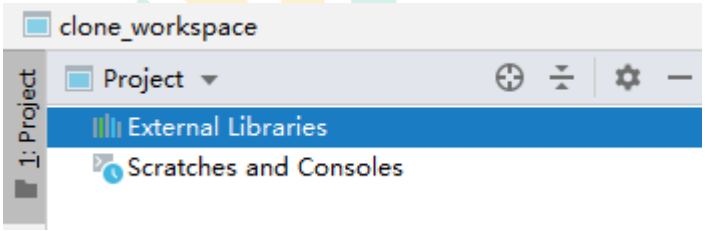

3) 提示是否为克隆的项目创建一个新工程



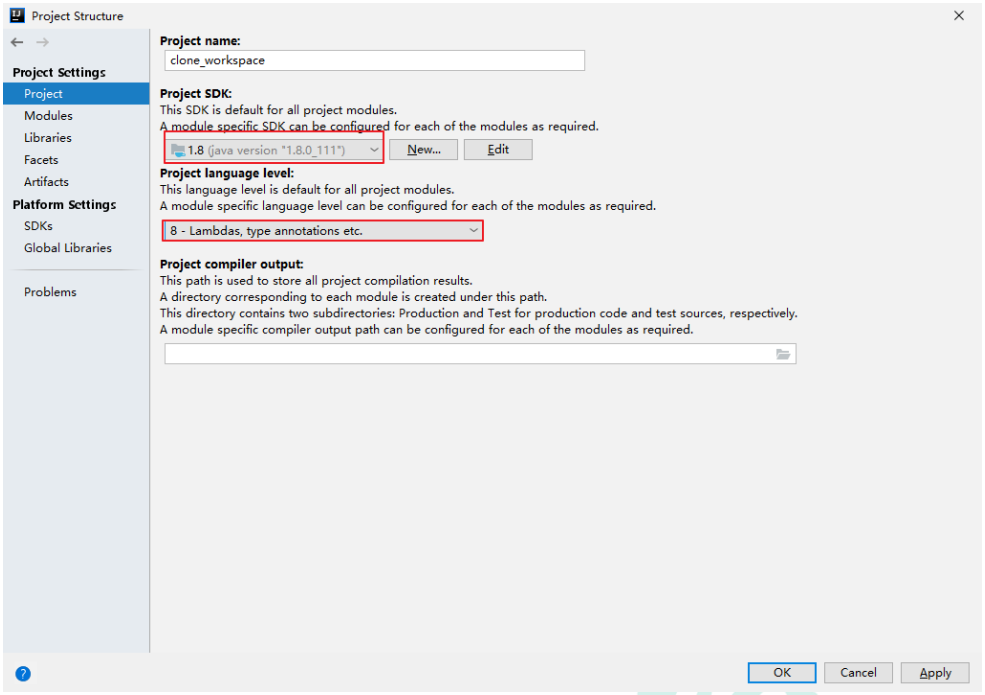

4) 点击 Yes 弹出导入工程的提示框

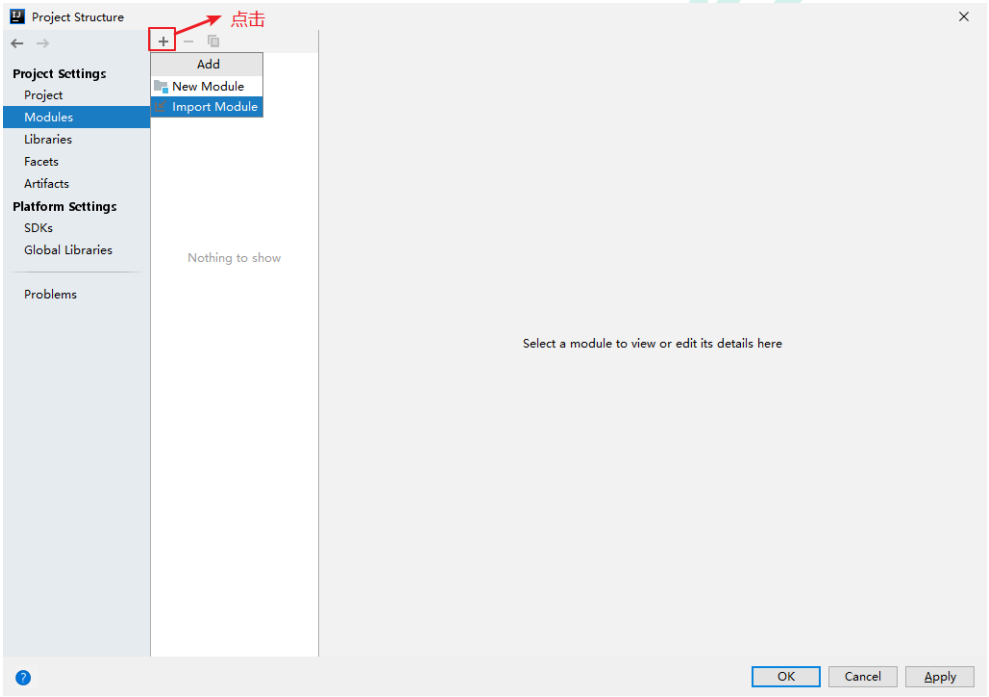



5) 点击 Finish 之后在 Idea 中显示的是一个空工程

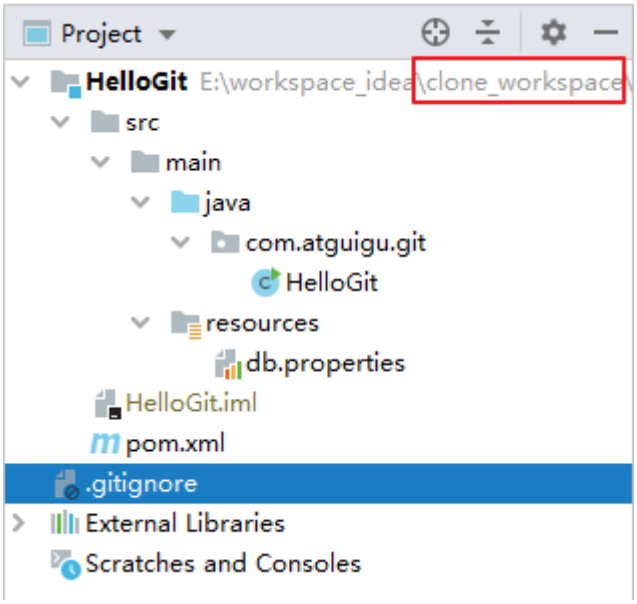



6) 需要为新工程配置一下 JDK、导入 Module


Project Structure
Project Settings
Project
Modules
Libraries
Facets
Artifacts
Platform Settings
SDKs
Global Libraries
Problems
Project name:
clone_workspace
Project SDK:
This SDK is default for all project modules.
A module specific SDK can be configured for each of the modules as required.
1.8 (java version "1.8.0_111")
New...
Edit
Project language level:
This language level is default for all project modules.
A module specific language level can be configured for each of the modules as required.
8 - Lambdas, type annotations etc.
Project compiler output:
This path is used to store all project compilation results.
A directory corresponding to each module is created under this path.
This directory contains two subdirectories: Production and Test for production code and test sources, respectively.
A module specific compiler output path can be configured for each of the modules as required.
OK
Cancel
Apply


Project Structure
点击
Add
New Module
Import Module
Project Settings
Project
Modules
Libraries
Facets
Artifacts
Platform Settings
SDKs
Global Libraries
Problems
Nothing to show
Select a module to view or edit its details here
OK
Cancel
Apply

7) 克隆成功




# 第 5 章 国内的项目托管网站-码云

## 5.1 简介

使用 GitHub 作为项目托管网站如果网速不好很影响效率，大家也可以使用国内的项目托管网站-码云。网址是 https://gitee.com/ ，使用方式跟 GitHub 一样，而且它还是一个中文网站，如果你英文不是很好它是最好的选择。

## 5.2 配置 SSH 免密登录

在码云上通过 HTTPS 的模式上传项目跟在 GitHub 上一样，但是在码云上上传项目总是输入用户名和密码，比较麻烦，所以给大家演示一下通过 SSH 模式免密登录上传项目，使用 SSH 模式的好处是每次上传项目不需要输入用户名和密码，SSH 免密登录同样适用于 GitHub。

使用 SSH 模式前提是你必须是这个项目的拥有者或者合作者，且配好了 SSH Key，配置 SSH Key 的步骤如下：

1) 进入电脑的用户目录，在用户目录右键打开 Git 命令行窗口


2) 创建 SSH Key

在命令行窗口输入以下命令

```
ssh-keygen -t rsa -C 任意内容
```

命令参数说明：

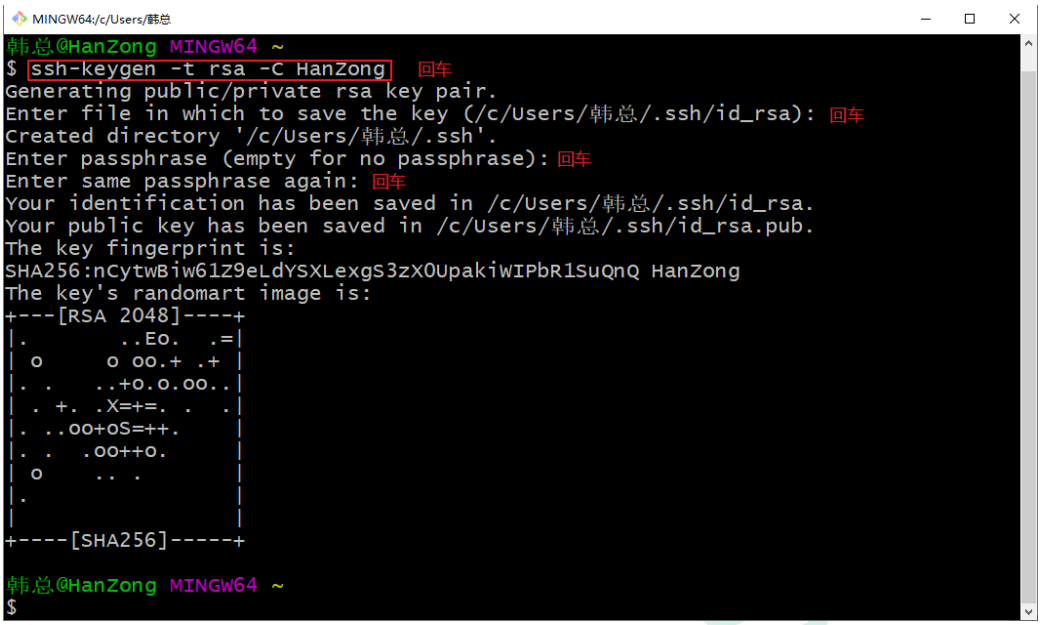
-t = The type of the key to generate

密钥的类型

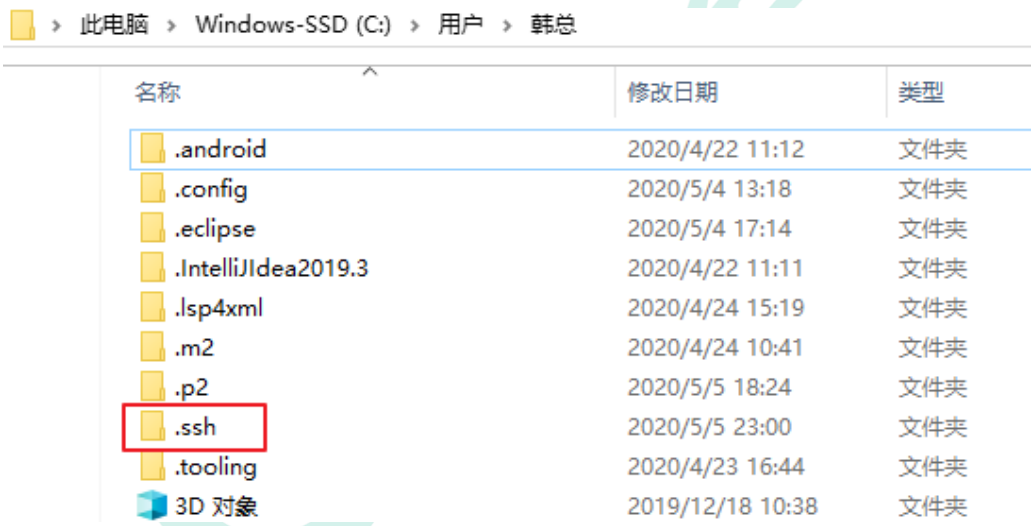
-C = comment to identify the key

用于识别这个密钥的注释

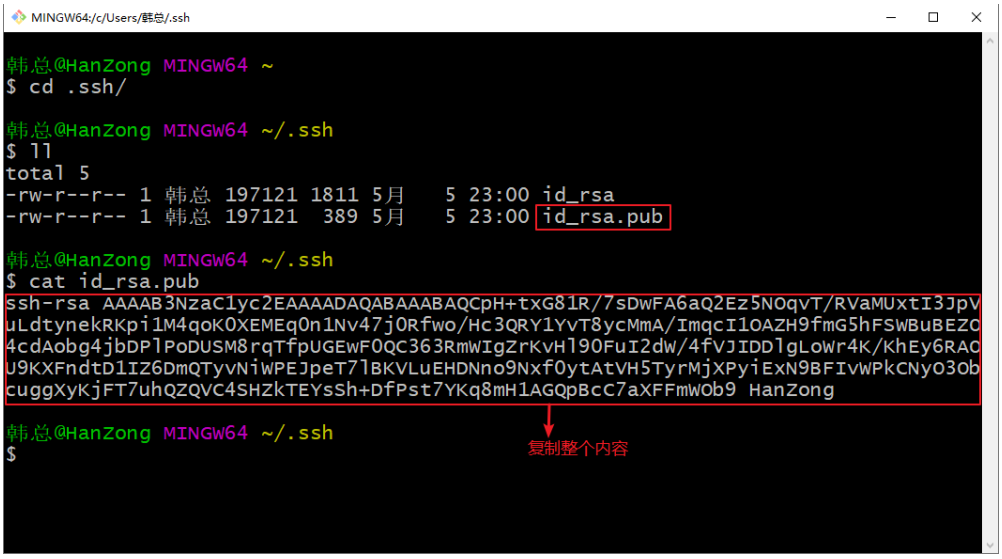

输入命令后回车，然后再回车、回车、回车




3) SSH Key 创建成功会在用户目录生成.ssh 文件夹




4) 进入.ssh 文件夹，查看 id_rsa.pub 文件，复制全部内容

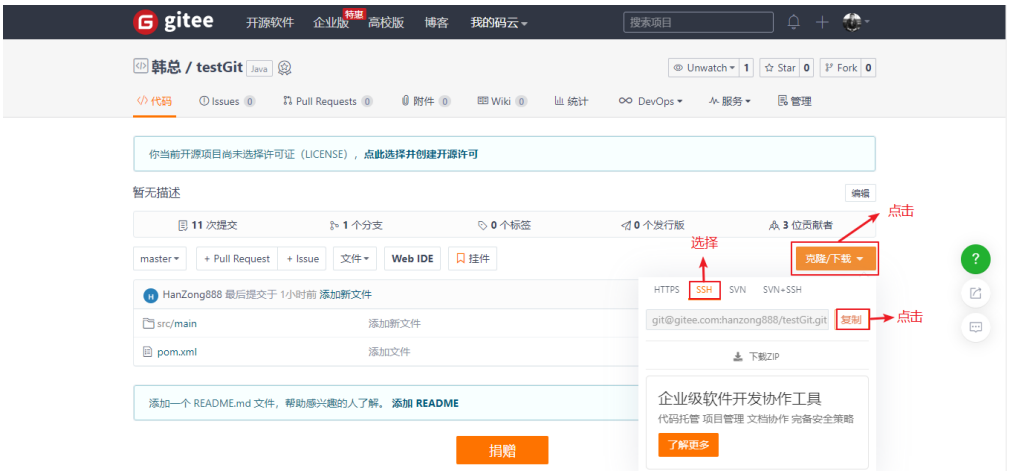



5) 找到码云账户的设置


6) 点击 SSH 公钥，设置标题，粘贴公钥，点击确定

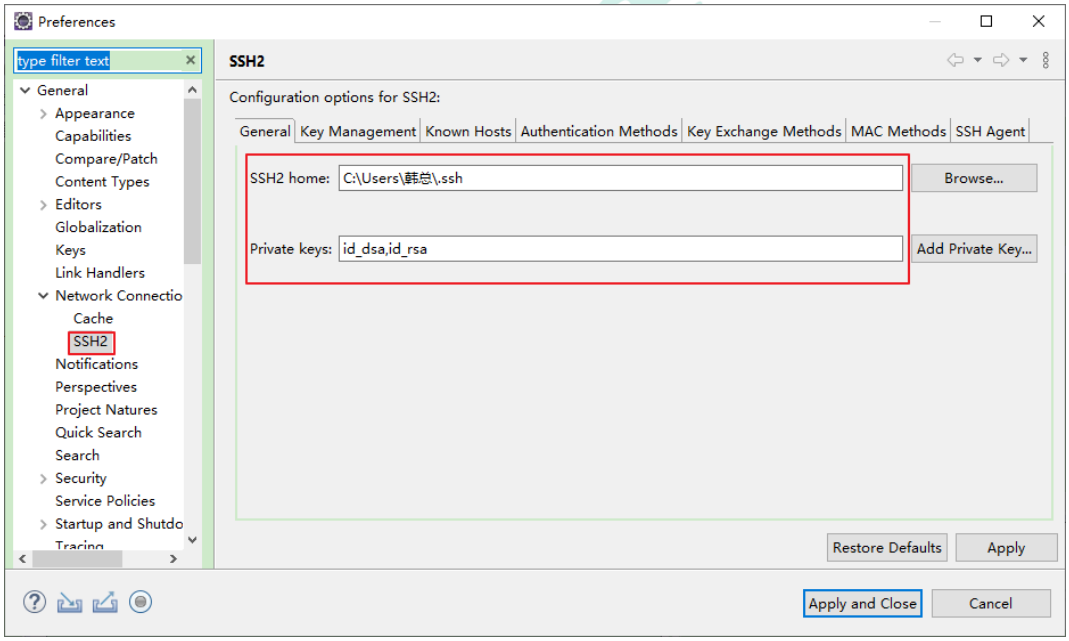

Tips：码云账户中可以添加多个 SSH 公钥，但是一台电脑只能授权一个用户免密登录

7) 复制码云账户中仓库的 SSH 地址



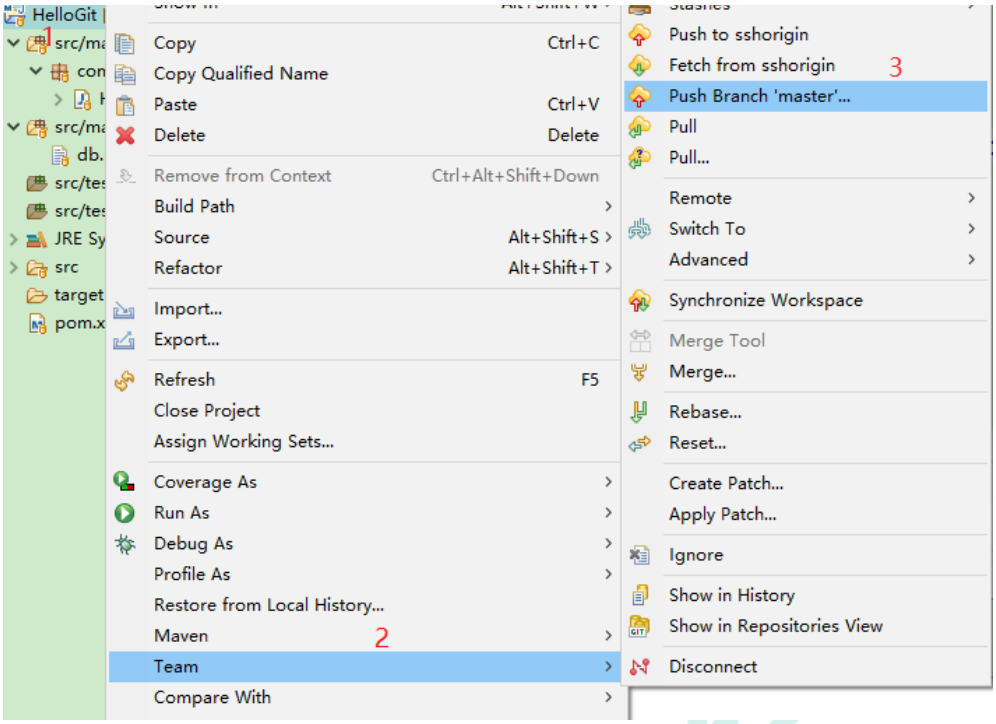

# 5.3 在 Eclipse 中通过 SSH 模式上传项目

创建了 SSH Key 之后 Eclipse 可以自动识别对应的公钥和私钥文件

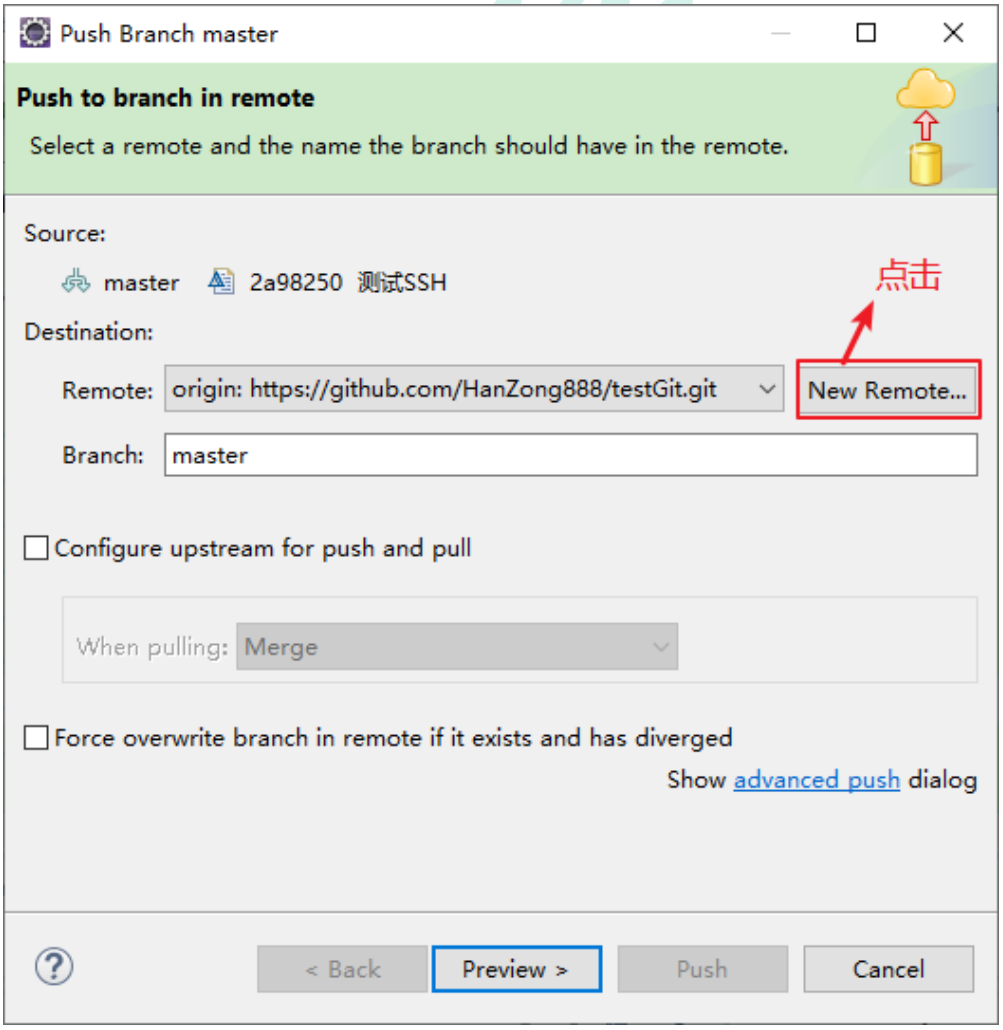



通过 SSH 模式上传项目的步骤：

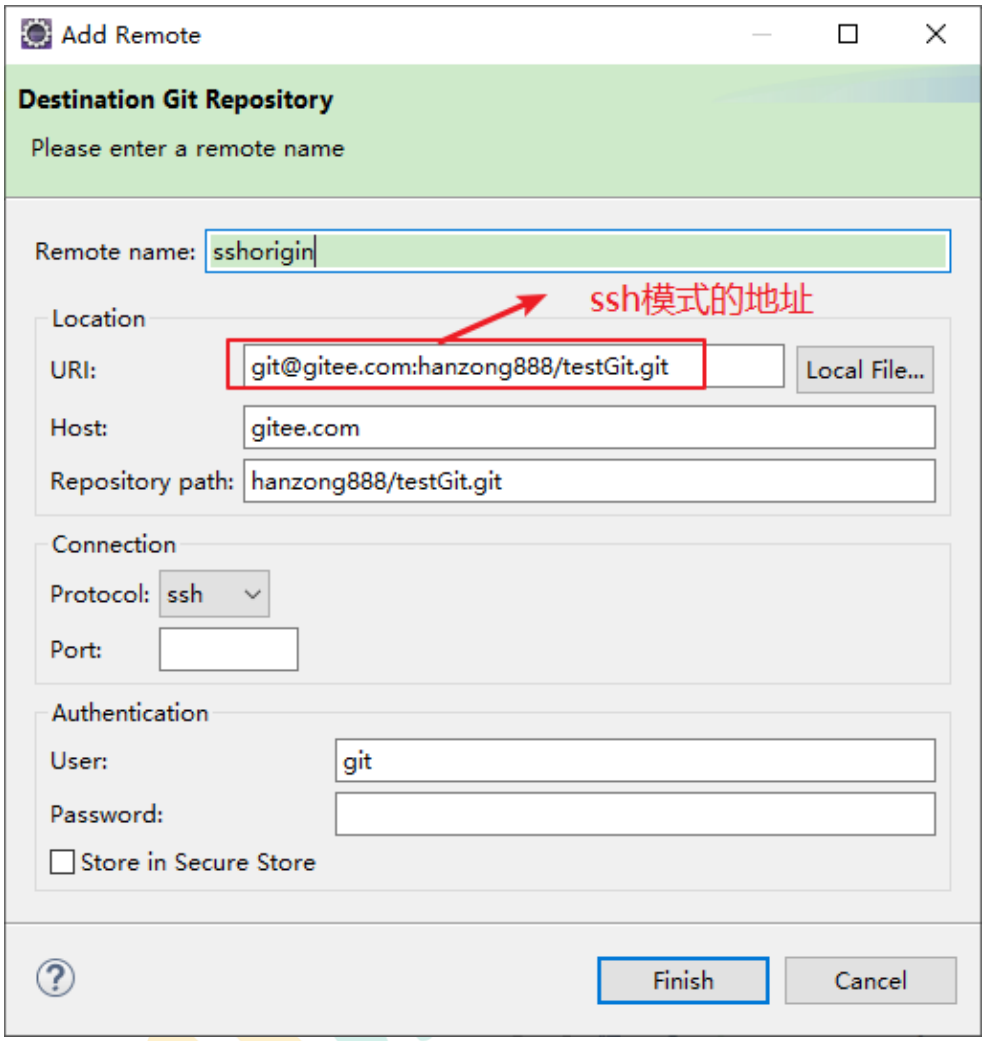
1) 在要上传的项目上右键



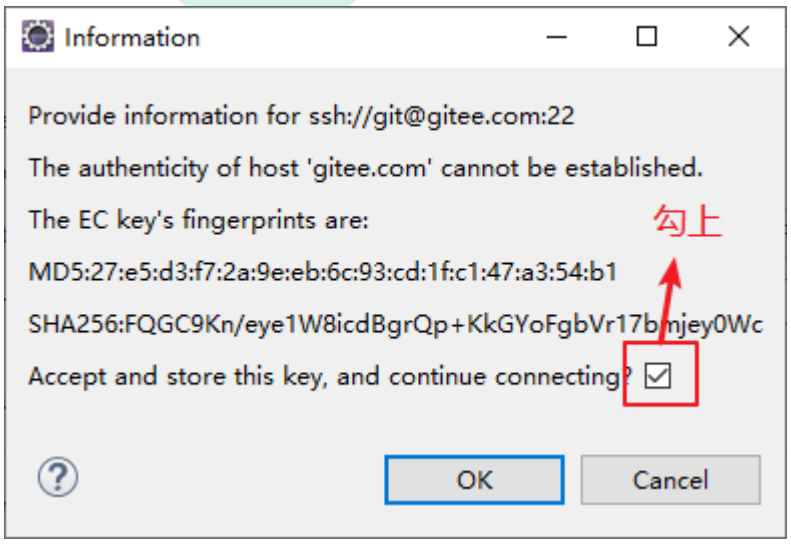

2) 点击 New Remote...

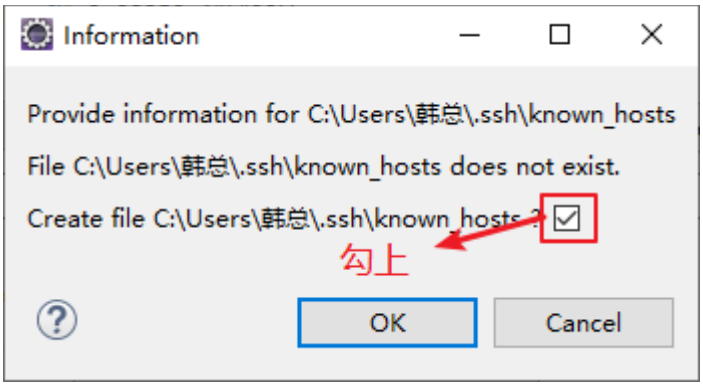


3) 复制 SSH 模式的地址并给远程地址起一个别名

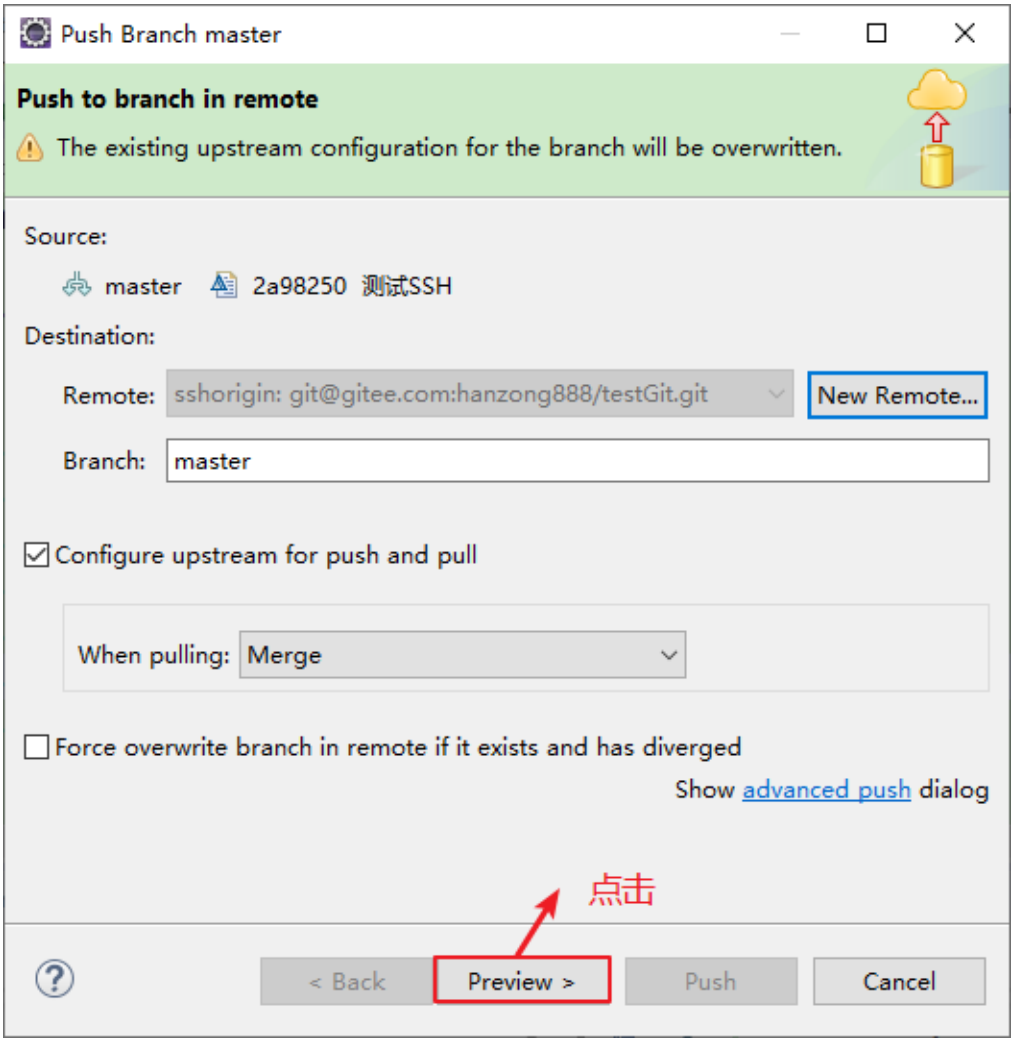



4) 因为是第一次使用 SSH 模式，点击 Finish 之后需要勾选保存 key，勾选创建 known_hosts 文件，以后就不需要这样了

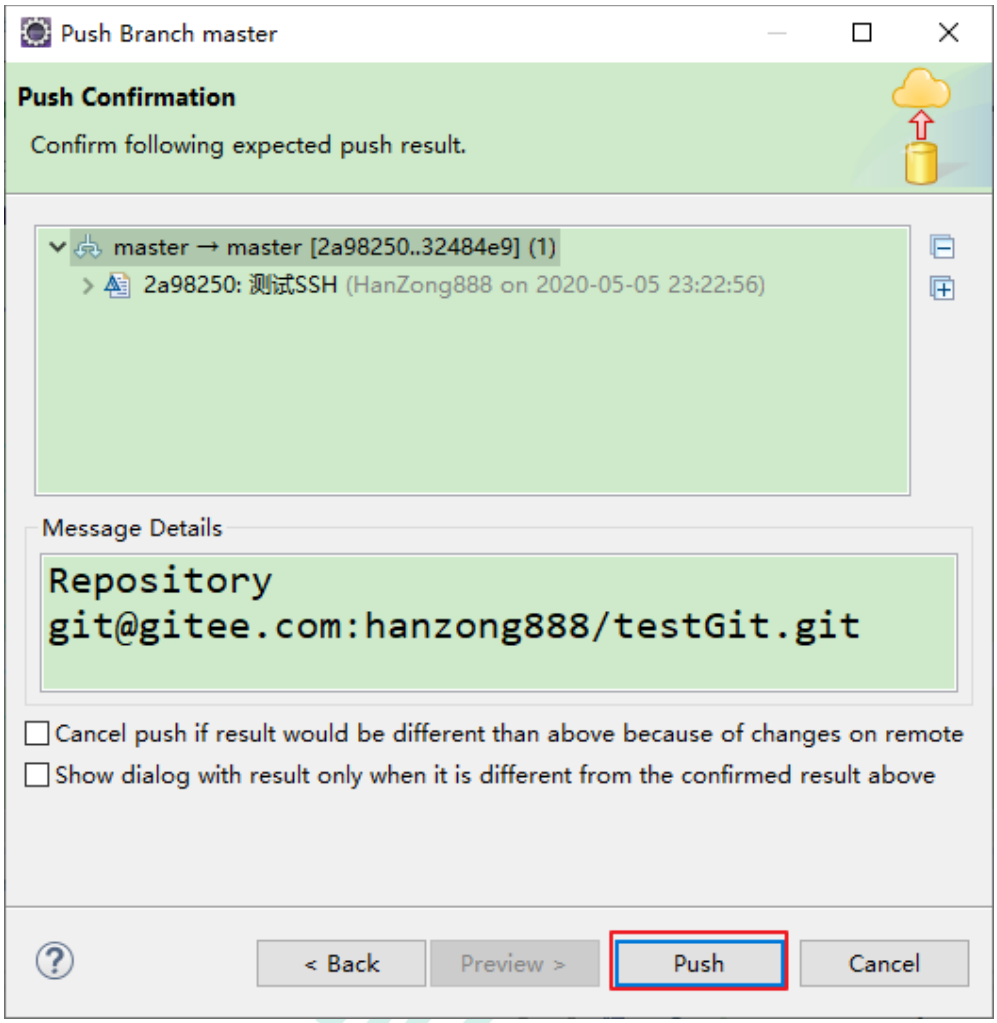




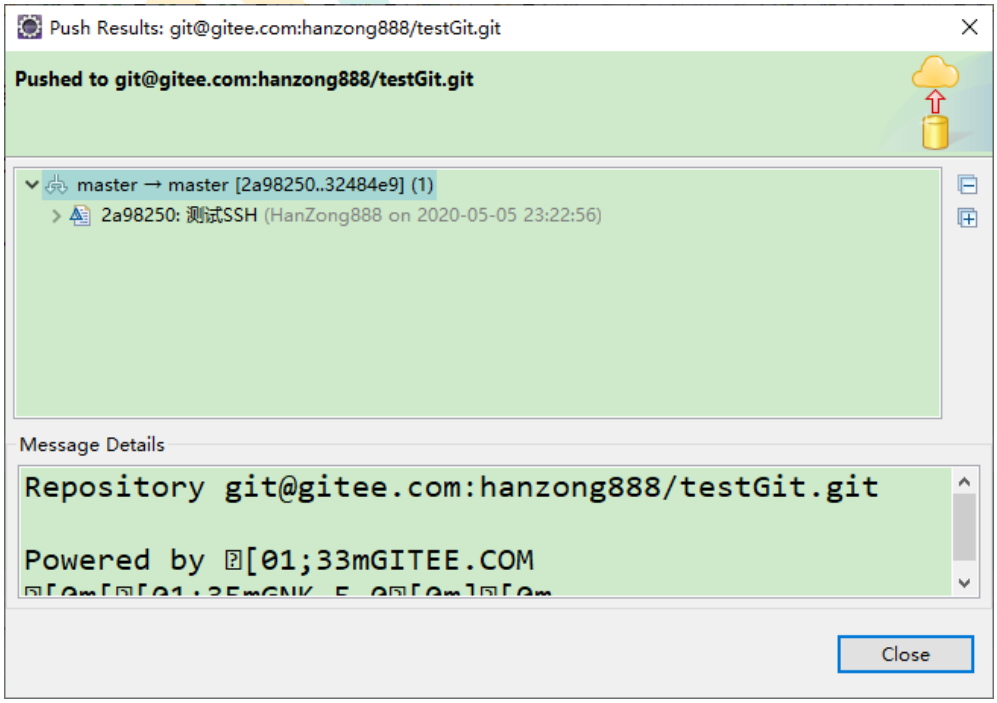

5) 点击 Preview 进入确定上传窗口




6) 点击 Push 开始上传，不再需要输入用户名和密码


Push Branch master
Push Confirmation
Confirm following expected push result.
master → master [2a98250..32484e9] (1)
2a98250: 测试SSH (HanZong888 on 2020-05-05 23:22:56)
Message Details
Repository
git@gitee.com:hanzong888/testGit.git
Cancel push if result would be different than above because of changes on remote
Show dialog with result only when it is different from the confirmed result above
< Back
Preview >
Push
Cancel

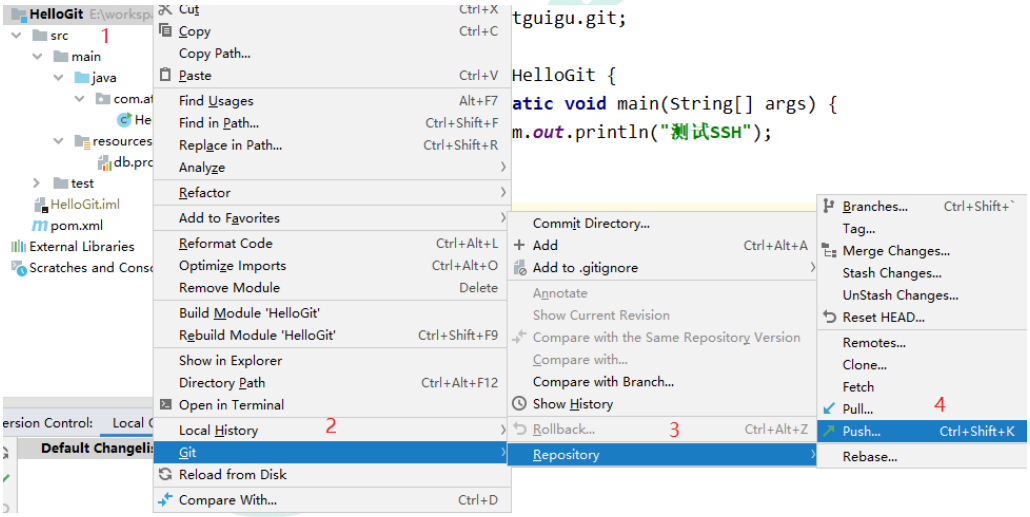
7) 上传成功


Push Results: git@gitee.com:hanzong888/testGit.git
Pushed to git@gitee.com:hanzong888/testGit.git
master → master [2a98250..32484e9] (1)
2a98250: 测试SSH (HanZong888 on 2020-05-05 23:22:56)
Message Details
Repository git@gitee.com:hanzong888/testGit.git
Powered by [01;33mGITEE.COM
Close

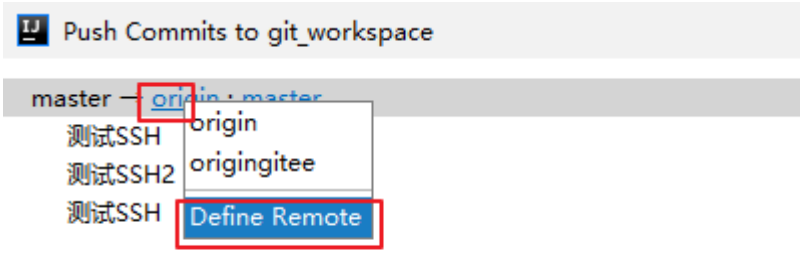
# 5.4 在 Idea 中通过 SSH 模式上传项目

1) 在码云账户中创建一个新的仓库，复制 SSH 模式的地址

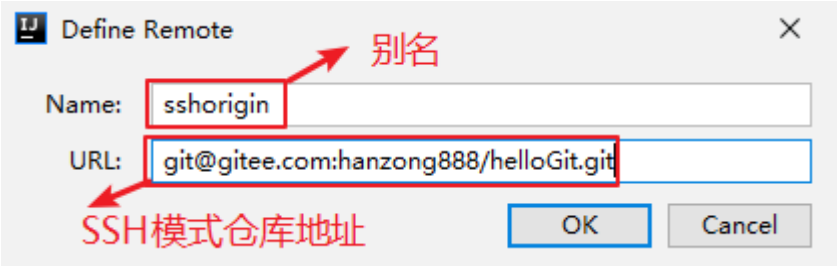

2) 在 Idea 中要上传的项目上右键



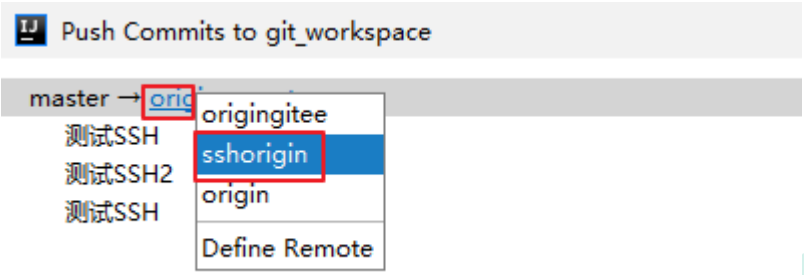

3) 在弹出的窗口点击 origin→Define Remote




4) 设置 SSH 模式远程地址与别名




5) 选择定义的 sshorigin 开始上传项目




6) 点击 Push 直接上传成功