

International
Blockchain Olympiad

Corda Lab Prerequisites

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Download and Install:

Page 3: Oracle JDK 8 (minimum supported version 8u171, Java 9 or higher do not support currently)

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Java

Step 1

Go to

<https://www.oracle.com/java/technologies/javase-jdk8-downloads.html>



The screenshot shows the Oracle website's 'Java SE Development Kit 8 Downloads' page. The browser's address bar displays the URL 'oracle.com/java/technologies/javase-jdk8-downloads.html'. The page header includes the Oracle logo, a search bar with the text 'Ask "Try Oracle Cloud for free"', and links for 'View Accounts' and 'Try Oracle Cloud Free Tier'. The main navigation bar shows 'Java / Technologies /' followed by buttons for 'Java SE Downloads' and 'Java SE Subscriptions'. The main content area is titled 'Java SE Development Kit 8 Downloads' and contains a thank-you message for downloading the JDK 8, explaining its purpose as a development environment for building applications and components using Java. It also mentions that the JDK includes tools for developing and testing programs written in Java.

oracle.com/java/technologies/javase-jdk8-downloads.html

Java / Technologies /

Java SE Downloads

Java SE Subscriptions

Java SE Development Kit 8 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, applets, and components using the Java programming language.



The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

Step 2

Check Java Version > 171









Java SE Development Kit 8u241

This software is licensed under the [Oracle Technology Network License Agreement for Oracle Java SE](#)

Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	72.94 MB	 jdk-8u241-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	69.83 MB	 jdk-8u241-linux-arm64-vfp-hflt.tar.gz


Step 3

Select the package to download according to your OS

Linux ARM 32 Hard Float ABI	72.94 MB	 jdk-8u241-linux-arm32-vfp-hflt.tar.gz	
Linux ARM 64 Hard Float ABI	69.83 MB	 jdk-8u241-linux-arm64-vfp-hflt.tar.gz	
Linux x86 RPM Package	171.28 MB	 jdk-8u241-linux-i586.rpm	Linux
Linux x86 Compressed Archive	186.1 MB	 jdk-8u241-linux-i586.tar.gz	
Linux x64 RPM Package	170.65 MB	 jdk-8u241-linux-x64.rpm	
Linux x64 Compressed Archive	185.53 MB	 jdk-8u241-linux-x64.tar.gz	
Windows x86		200.86 MB	 jdk-8u241-windows-i586.exe
Windows x64		210.92 MB	
macOS x64	254.06 MB	 jdk-8u241-macosx-x64.dmg	macOS

Step 4


You need to review and accept the License Agreement to continue



You must accept the **Oracle Technology Network License Agreement for Oracle Java SE** to download this software.

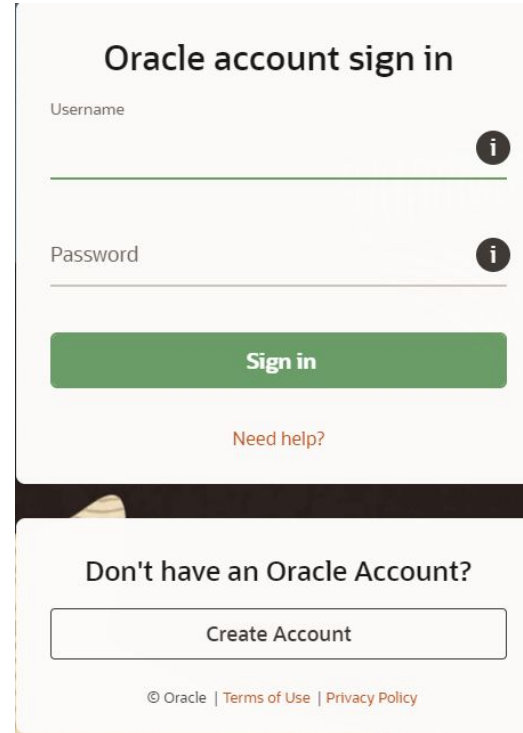
☐ I reviewed and accept the Oracle Technology Network License Agreement for Oracle Java SE ^{Required}

You will be redirected to the login screen in order to download the file.

Download jdk-8u241-windows-x64.exe 

Step 5

You need an Oracle Account to Download



The screenshot shows the Oracle account sign in interface. It features a title 'Oracle account sign in' at the top. Below the title are two input fields: 'Username' and 'Password'. Each field has a green underline and an information icon (i) to its right. A green 'Sign in' button is positioned below the password field. Below the button is a link that says 'Need help?'. At the bottom of the form is a section titled 'Don't have an Oracle Account?' with a 'Create Account' button. The footer contains the text '© Oracle | Terms of Use | Privacy Policy'.

Oracle account sign in

Username *i*

Password *i*

Sign in

[Need help?](#)

Don't have an Oracle Account?

Create Account

© Oracle | [Terms of Use](#) | [Privacy Policy](#)

Step 6

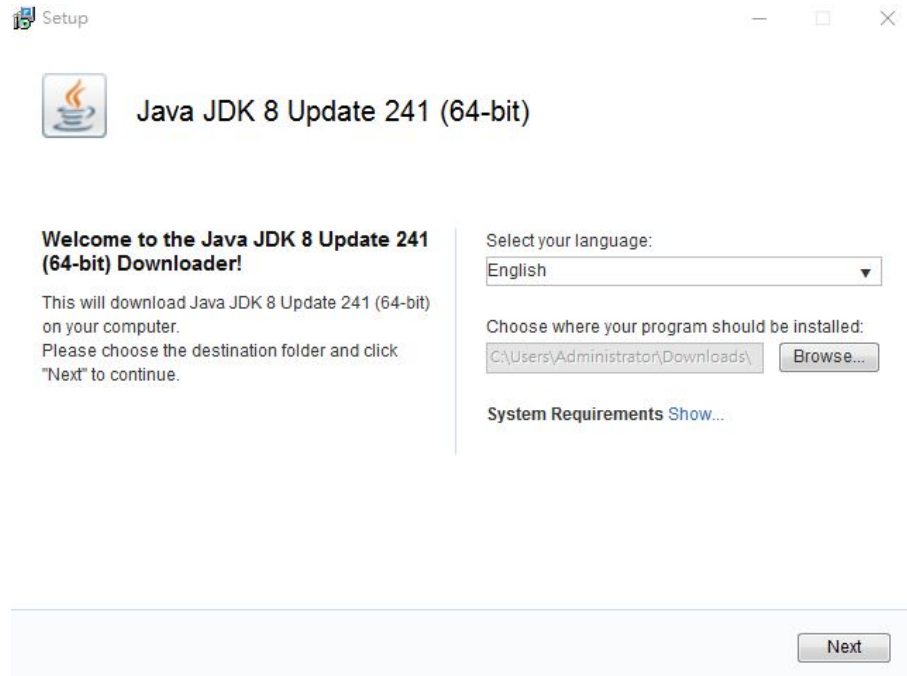
You should get a file similar to this one

Double Click to start installation

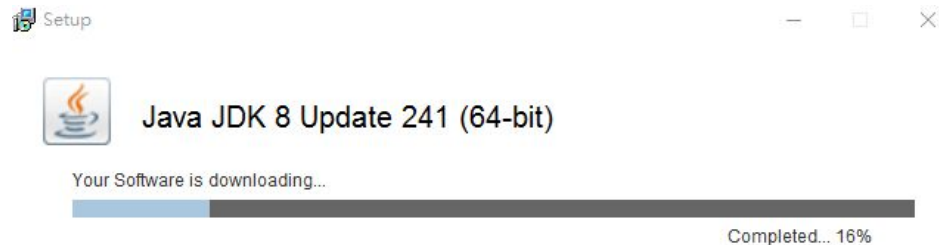


Step 7

Select Where to install the Program

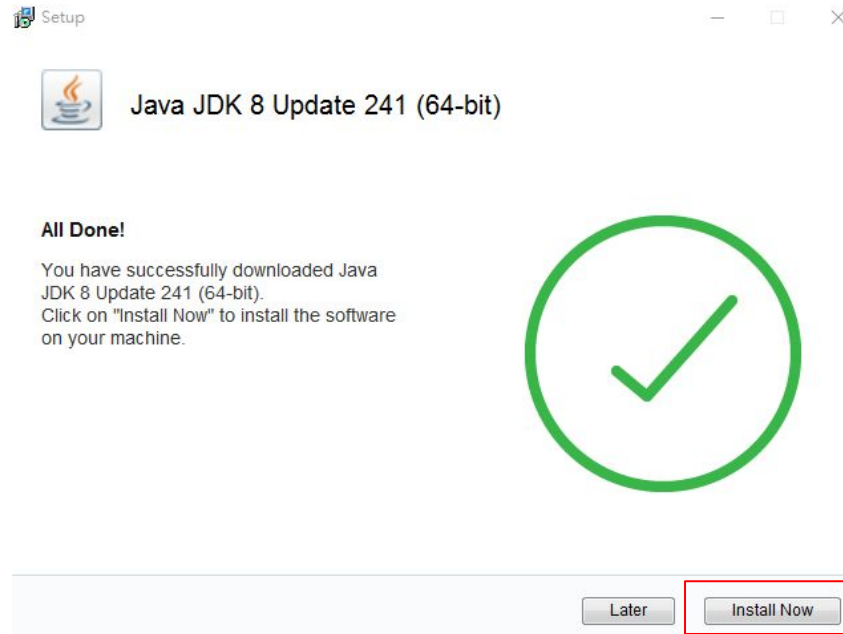


Wait for it to download



Step 8

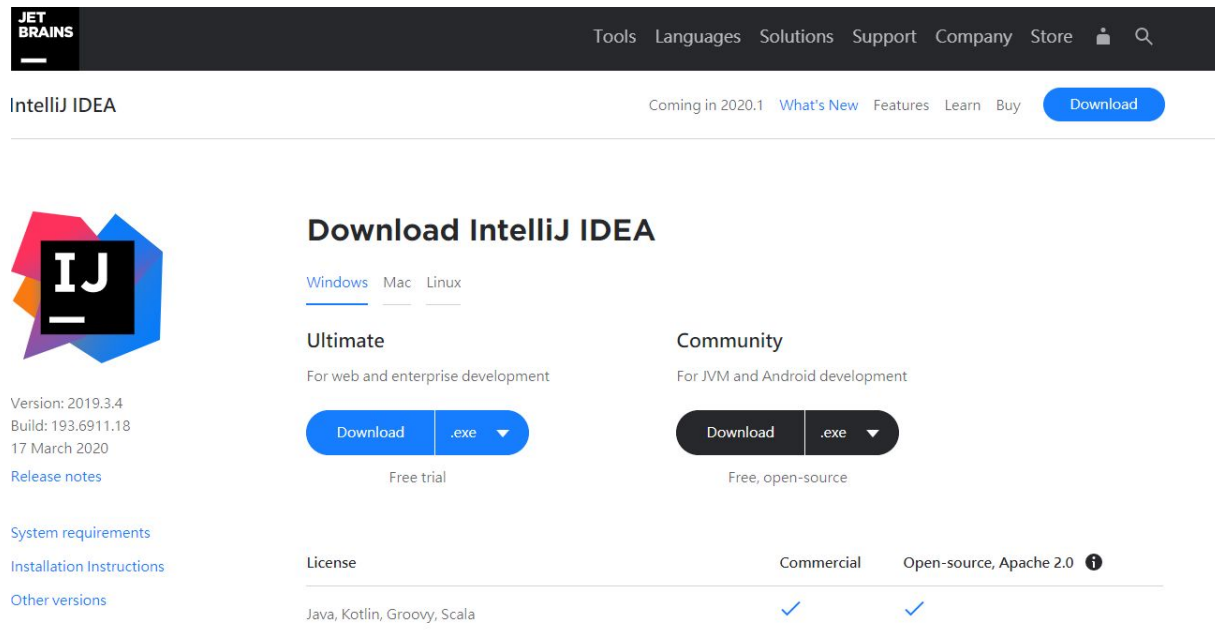
Click "Install now"



IntelliJ

Step 1

Go to <https://www.jetbrains.com/idea/download/>




The screenshot shows the JetBrains website's download page for IntelliJ IDEA. The header includes the JetBrains logo and navigation links: Tools, Languages, Solutions, Support, Company, Store, and a search icon. Below the header, the text 'IntelliJ IDEA' is followed by 'Coming in 2020.1' and links for 'What's New', 'Features', 'Learn', 'Buy', and a 'Download' button.

The main content area features the IntelliJ IDEA logo on the left, with version information: 'Version: 2019.3.4', 'Build: 193.6911.18', '17 March 2020', and links for 'Release notes', 'System requirements', 'Installation Instructions', and 'Other versions'.


The central section is titled 'Download IntelliJ IDEA' and has tabs for 'Windows', 'Mac', and 'Linux'. It presents two options: 'Ultimate' (for web and enterprise development) and 'Community' (for JVM and Android development). Each option has a 'Download' button and a '.exe' dropdown menu. Below the download buttons, it indicates 'Free trial' for Ultimate and 'Free, open-source' for Community.



At the bottom, a table compares the licenses for the two editions:

License	Commercial	Open-source, Apache 2.0 
Java, Kotlin, Groovy, Scala	✓	✓

Step 2


Select your OS



Tools Languages Solutions Support Company Store  

IntelliJ IDEA

Coming in 2020.1 [What's New](#) [Features](#) [Learn](#) [Buy](#) [Download](#)



Version: 2019.3.4
Build: 193.6911.18
17 March 2020
[Release notes](#)

[System requirements](#)
[Installation Instructions](#)
[Other versions](#)

Download IntelliJ IDEA

[Windows](#)
[Mac](#)
[Linux](#)

Ultimate

For web and enterprise development

[Download](#)
[.exe](#)




Free trial

Community

For JVM and Android development


[Download](#)
[.exe](#)



Free, open-source

License	Commercial	Open-source, Apache 2.0 
Java, Kotlin, Groovy, Scala		

Step 3


Download the Community Version



Tools Languages Solutions Support Company Store  

IntelliJ IDEA

Coming in 2020.1 [What's New](#) [Features](#) [Learn](#) [Buy](#) [Download](#)



Version: 2019.3.4
Build: 193.6911.18
17 March 2020
[Release notes](#)

[System requirements](#)
[Installation Instructions](#)
[Other versions](#)

Download IntelliJ IDEA

[Windows](#) [Mac](#) [Linux](#)

Ultimate

For web and enterprise development

[Download](#) [.exe](#)




Free trial

Community

For JVM and Android development

[Download](#) [.exe](#)

Free, open-source

License	Commercial	Open-source, Apache 2.0 
Java, Kotlin, Groovy, Scala		

Wait for it to Download

Thank you for downloading IntelliJ IDEA!

Your download should start shortly. If it doesn't, please use the [direct link](#).

Download and verify the file [SHA-256 checksum](#).

[Third-party software used by IntelliJ IDEA Community Edition](#)

Getting Started

- ☐ Send me helpful tips & tricks during evaluation
- ☐ Tell me about new product features as they come out
- ☐ By submitting this form, I agree that my email address, names, and location may be used by JetBrains s.r.o. ("JetBrains") for the purposes outlined above. I agree that JetBrains may process said data using [third-party services](#) for these purposes in accordance with the [JetBrains Privacy Policy](#). I understand that I can revoke this consent at any time in [my profile](#). In addition, an unsubscribe link is included in each email.

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In our [C](#)
you'll find
most in
feature:

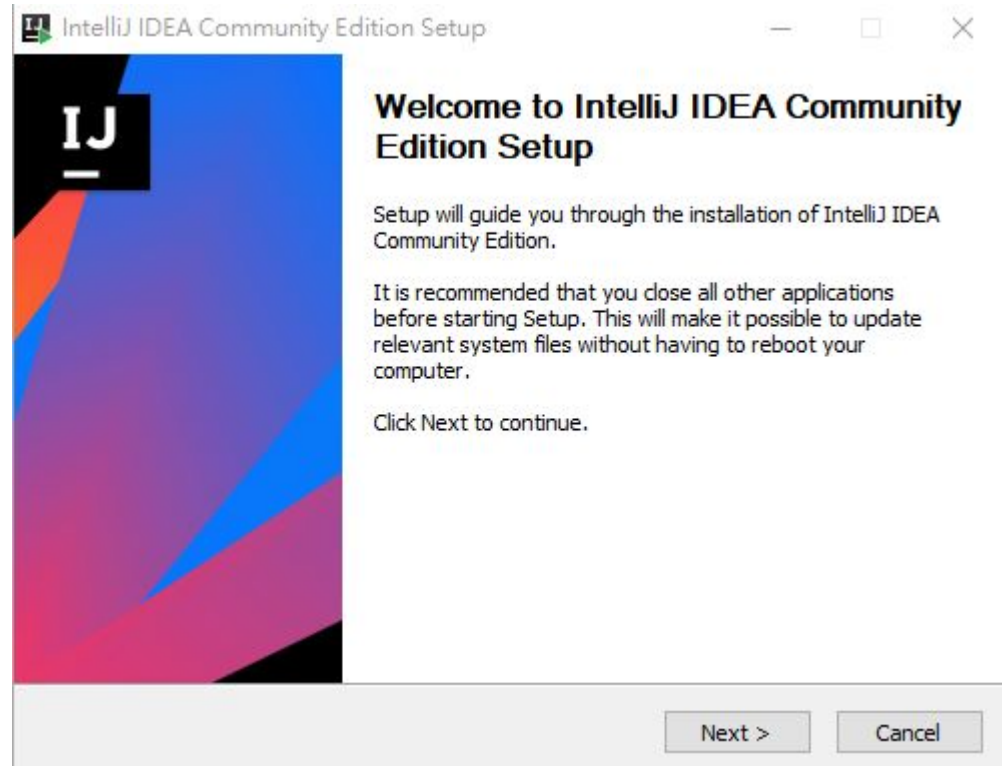
If you are
another
for switch
[NetBeans](#)

If you don't
[video tutorial](#)



Step 4

Follow the installation guide



Git

Step 1

Go to <https://git-scm.com/downloads>



The screenshot shows the Git website's 'Downloads' page. The header features the Git logo and the tagline '--everything-is-local', along with a search bar. The left sidebar contains links for 'About', 'Documentation', 'Downloads' (highlighted), and 'Community'. The main content area is titled 'Downloads' and lists operating systems: Mac OS X, Windows, and Linux/Unix. A monitor graphic displays the 'Latest source Release 2.25.1' with a 'Download 2.25.1 for Windows' button. Below the OS links, it states 'Older releases are available and the Git source repository is on GitHub.' The footer includes sections for 'GUI Clients' and 'Logos'.

git --everything-is-local

Search entire site...

About
Documentation
Downloads
GUI Clients
Logos
Community

Downloads

Mac OS X Windows
Linux/Unix

Latest source Release
2.25.1
Release Notes (2020-02-17)
Download 2.25.1 for Windows

Older releases are available and the Git source repository is on GitHub.

GUI Clients
Git comes with built-in GUI tools (**git-gui**,

Logos
Various Git logos in PNG (bitmap) and EPS

The entire **Pro Git book** written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

Step 2

Select Your OS

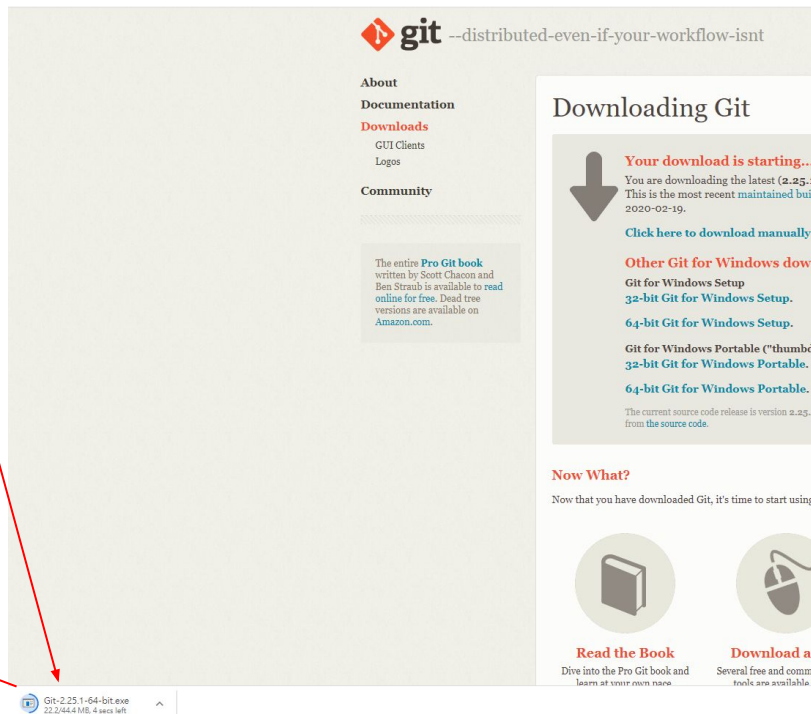


The screenshot shows the Git website with the following layout:

- Header:** Git logo and tagline "--everything-is-local". A search bar on the right says "Search entire site...".
- Left Sidebar:**
 - About**
 - Documentation**
 - Downloads** (highlighted in red)
 - GUI Clients
 - Logos
 - Community**
- Main Content Area:**
 - Downloads** (large heading)
 - A box with three operating system options: **Mac OS X** (with Apple logo), **Windows** (with Windows logo), and **Linux/Unix** (with Tux logo). This box is highlighted with a red border.
 - Text below: "Older releases are available and the Git source repository is on GitHub."
 - GUI Clients** (red heading) with text: "Git comes with built-in GUI tools (**git-gui**,"
 - Logos** (red heading) with text: "Various Git logos in PNG (bitmap) and EPS"
- Right Side:** A monitor graphic displaying:
 - "Latest source Release **2.25.1**"
 - "Release Notes (2020-02-17)"
 - A button: "Download 2.25.1 for Windows"
- Footer:** "The entire **Pro Git book** written by Scott Chacon and Ben Straub is available to read online for free. Dead tree versions are available on Amazon.com."

Step 3

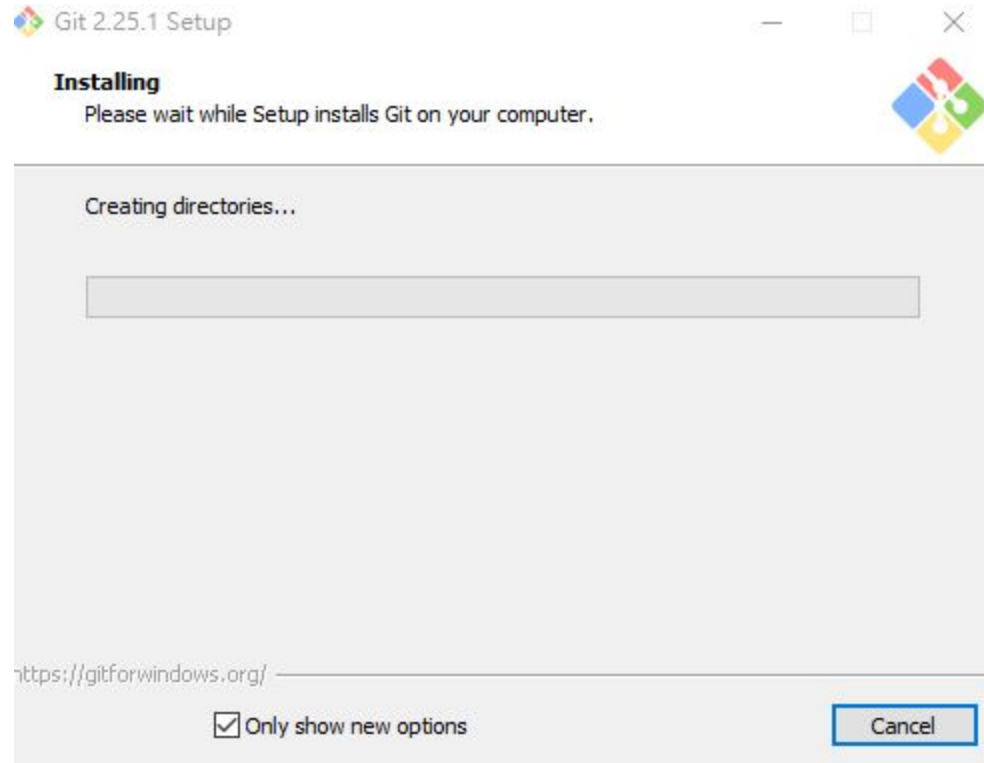
Wait for it to Download



Follow the installation guide



Step 4



Get the Lab Materials From Git

Step 1

For Window Users , use Command Prompt

For Mac, Linux Users, use Terminal

Go to the Directory that you want to download the materials,

Example: C:\UserName\Documents

```
cd C:\UserName\Documents
```

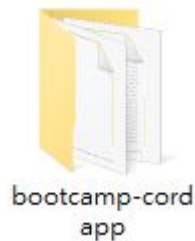
Step 2

After you have go to the directory,

Clone the repo by running

```
git clone https://github.com/corda/cordapp-example
```

Check the directory:



Import Project to IntelliJ



Welcome to IntelliJ IDEA



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IntelliJ IDEA

Version 2019.3.2

+ Create New Project

📁 Import Project

📁 Open

📁 Get from Version Control

⚙️ Configure ▼ Get Help ▼



Welcome to IntelliJ IDEA



IntelliJ IDEA

Version 2019.3.2

+ Create New Project

📁 Import Project

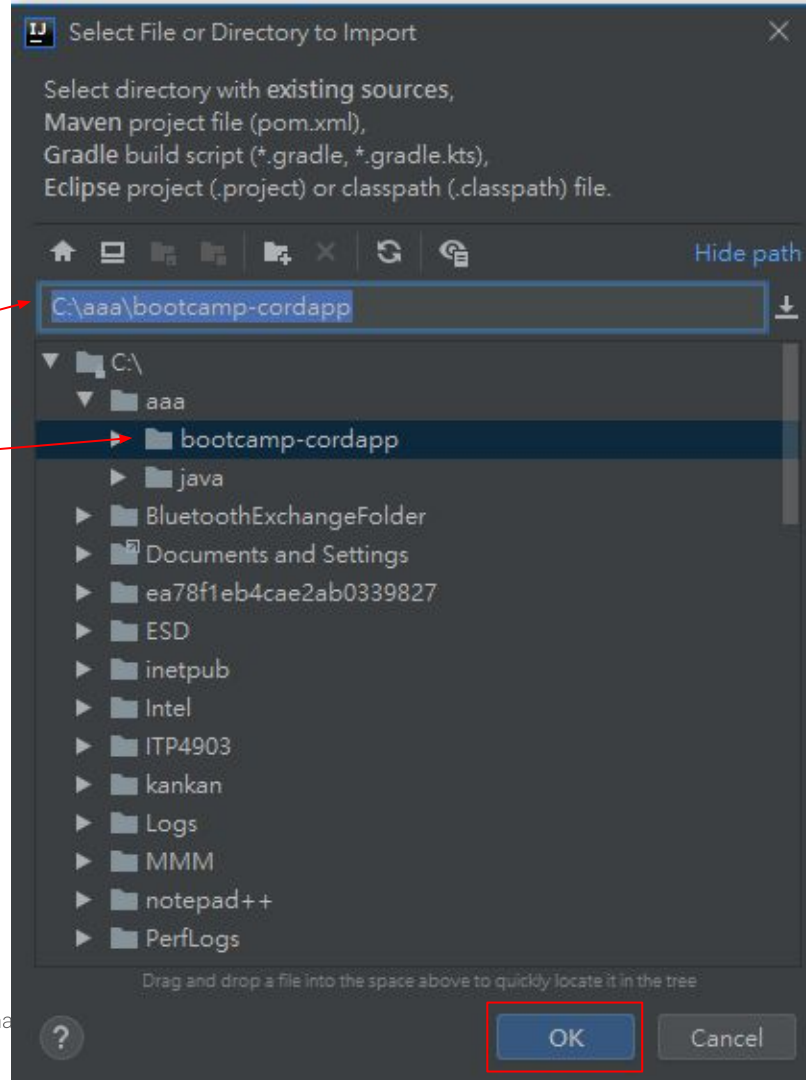
📁 Open

📁 Get from Version Control

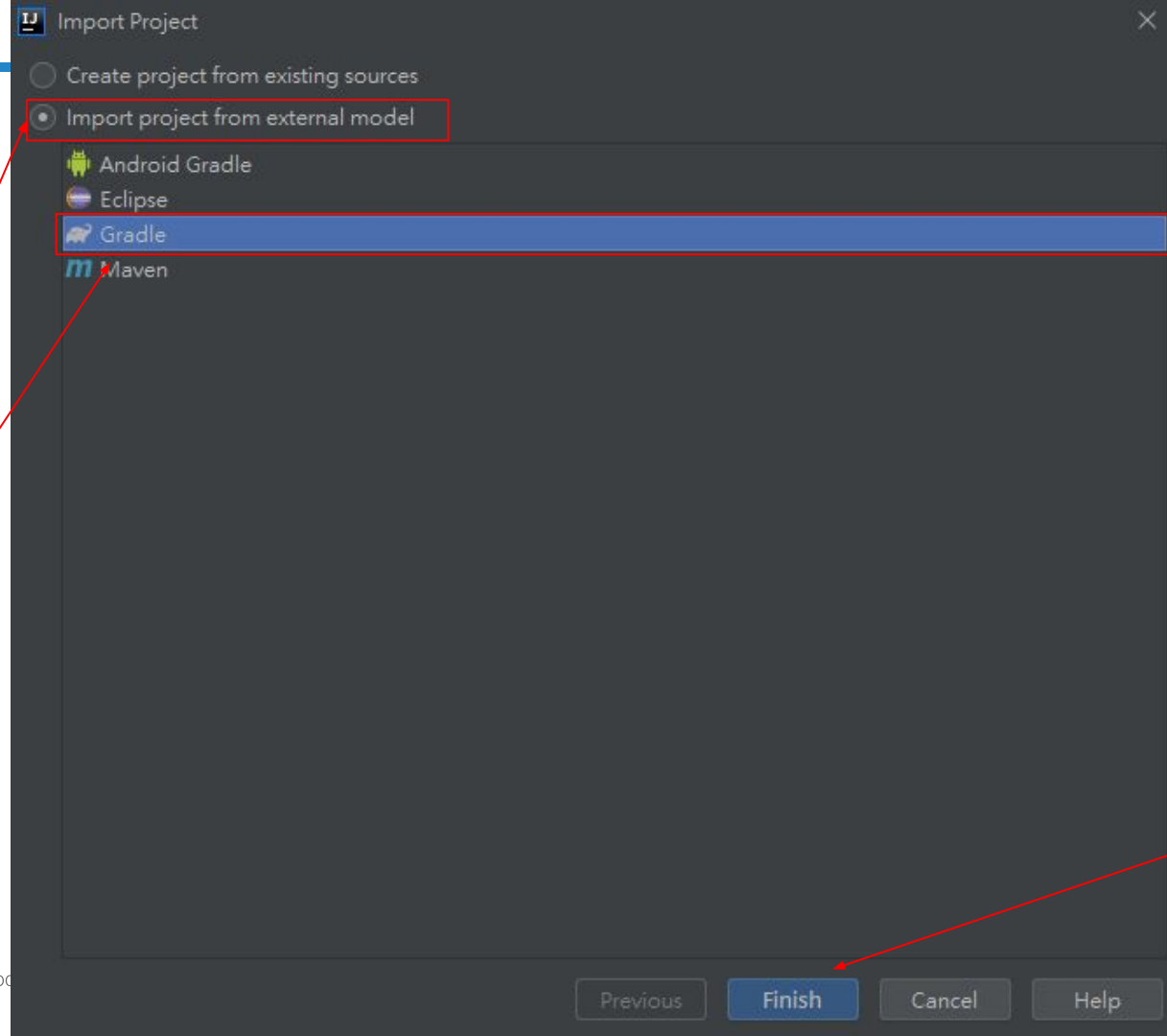
⚙️ Configure ▼

📖 Get Help ▼

File path,
Where you have saved
bootcamp-cordapp



Select



Then, Click Finish

Loading bootcamp-cordapp Project

Loading components...

Cancel

bootcamp-cordapp

Project

bootcamp-cordapp C:\aaa\bootcamp-cordapp

External Libraries

Scratches and Consoles

corda

Tip of the Day

A special variant of the Code Completion feature invoked by pressing **Ctrl+Space** twice allows you to complete XML tag names from namespaces not declared in the current file. If the namespace is not declared yet the declaration is generated automatically.

<table>	http://www.w3.org/1999/html
<datalist>	http://www.w3.org/1999/html
<details>	http://www.w3.org/1999/html
<textarea>	http://www.w3.org/1999/html

Press ^Space to view tags from other namespaces

☒ Show tips on startup

Previous Tip Next Tip Close

1. Download and install a JDK 8 JVM (minimum supported version 8u131)

2. Download and install IntelliJ Community Edition (supported versions 2017.x and 2018.x)

3. Download the bootcamp-cordapp repository:

```
git clone https://github.com/corda/bootcamp-cordapp
```

4. Open IntelliJ. From the splash screen, click **Import Project**, select the bootcamp-cordapp

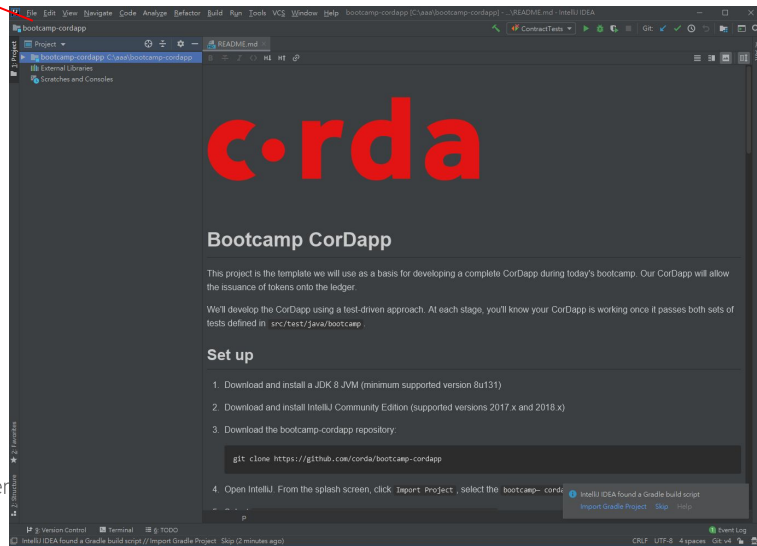
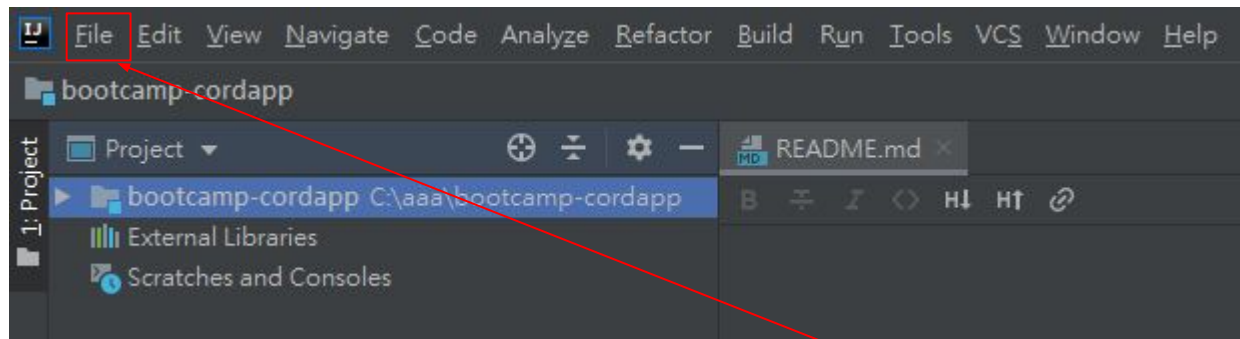
IntelliJ IDEA found a Gradle build script

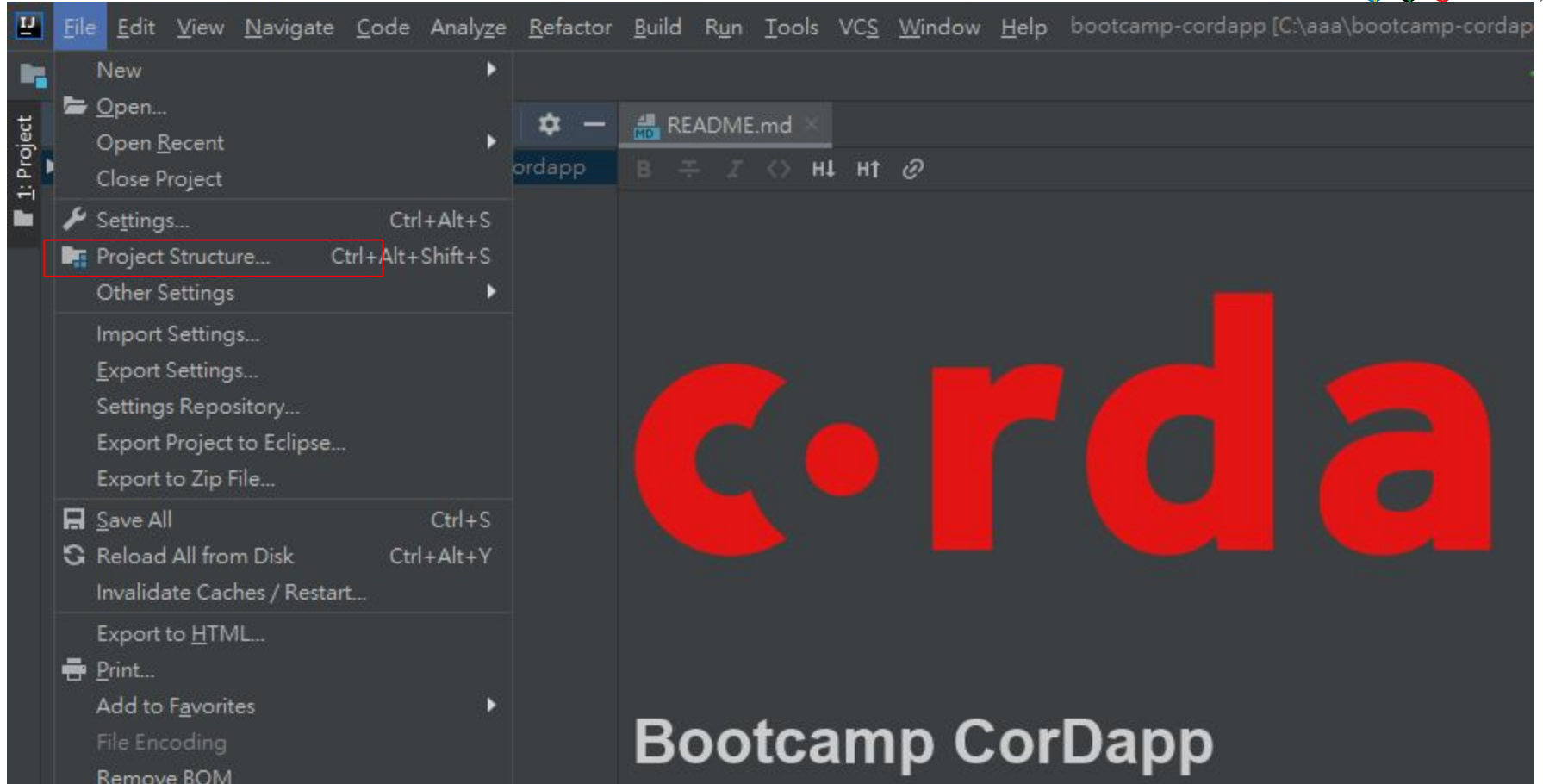
Import Gradle Project Skip Help

Version Control Terminal TODO

IntelliJ IDEA found a Gradle build script // Import Gradle Project Skip

CRLF UTF-8 4 spaces Git: v4 Event Log





File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help bootcamp-cordapp [C:\aaa\bootcamp-cordapp] - ... \README.md - IntelliJ IDEA

bootcamp-cordapp

Project Structure

Project Settings

Project

Modules

Libraries

Facets

Artifacts

Platform Settings

SDKs

Global Libraries

Problems

Project name:

bootcamp-cordapp

Project SDK:

This SDK is default for all project modules.
A module specific SDK can be configured for each of the modules as required.

<No SDK> 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.

13 - No new language features

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

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37

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help bootcamp-cordapp [C:\aaa\bootcamp-cordapp] - ... \README.md - IntelliJ IDEA

bootcamp-cordapp

Project Structure

Project name: bootcamp-cordapp

Project SDK:
This SDK is default for all project modules.
A module specific SDK can be configured for each of the modules as required.

<No SDK> New... Edit

Project language level:

Project SDK:
This SDK is default for all project modules.
A module specific SDK can be configured for each of the modules as required.

<No SDK> New... Edit

<No SDK>

1.8.0_241 (java version "1.8.0_241")

Kotlin SDK (1.3.61)

13 - No new language features

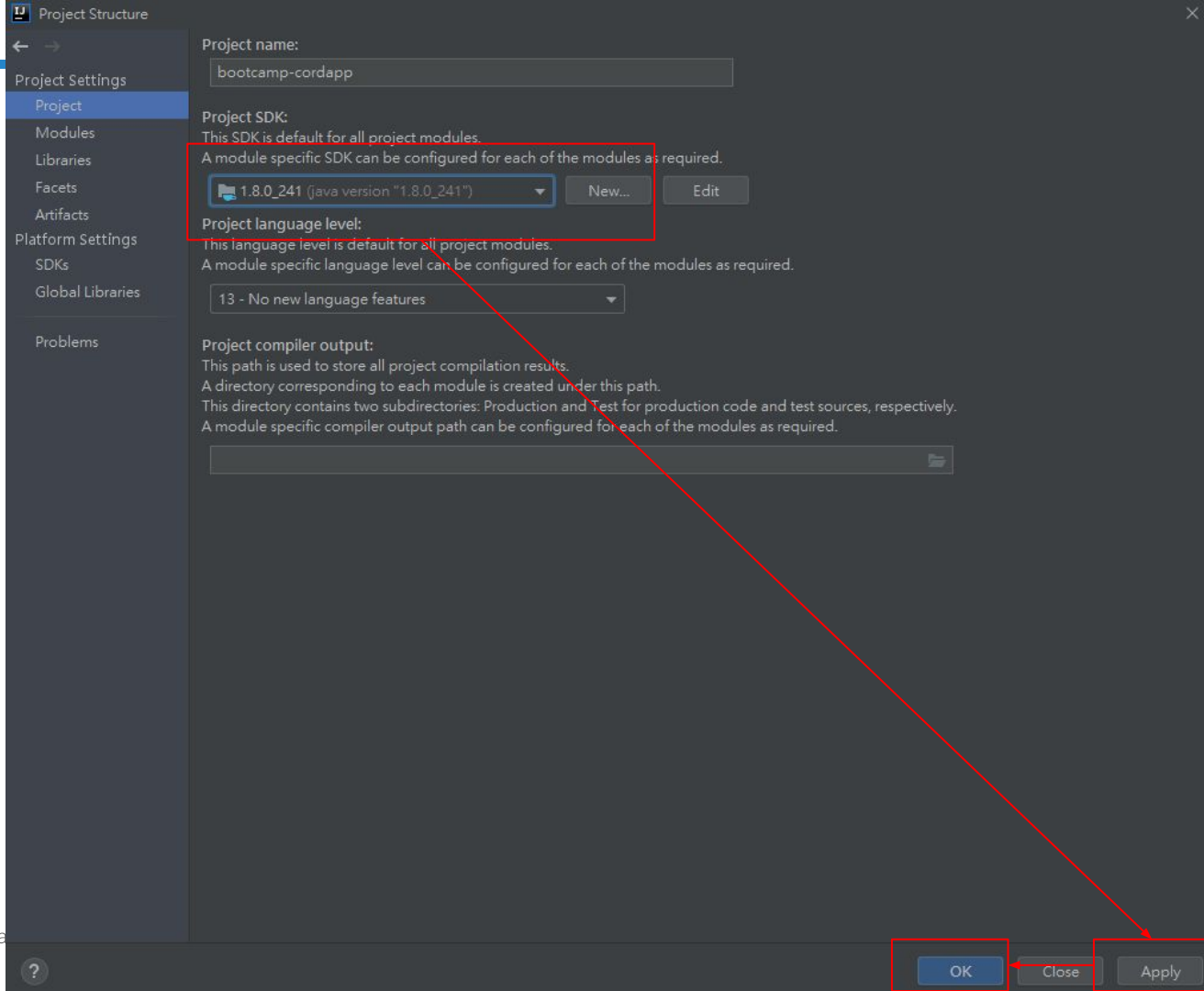
OK Cancel Apply

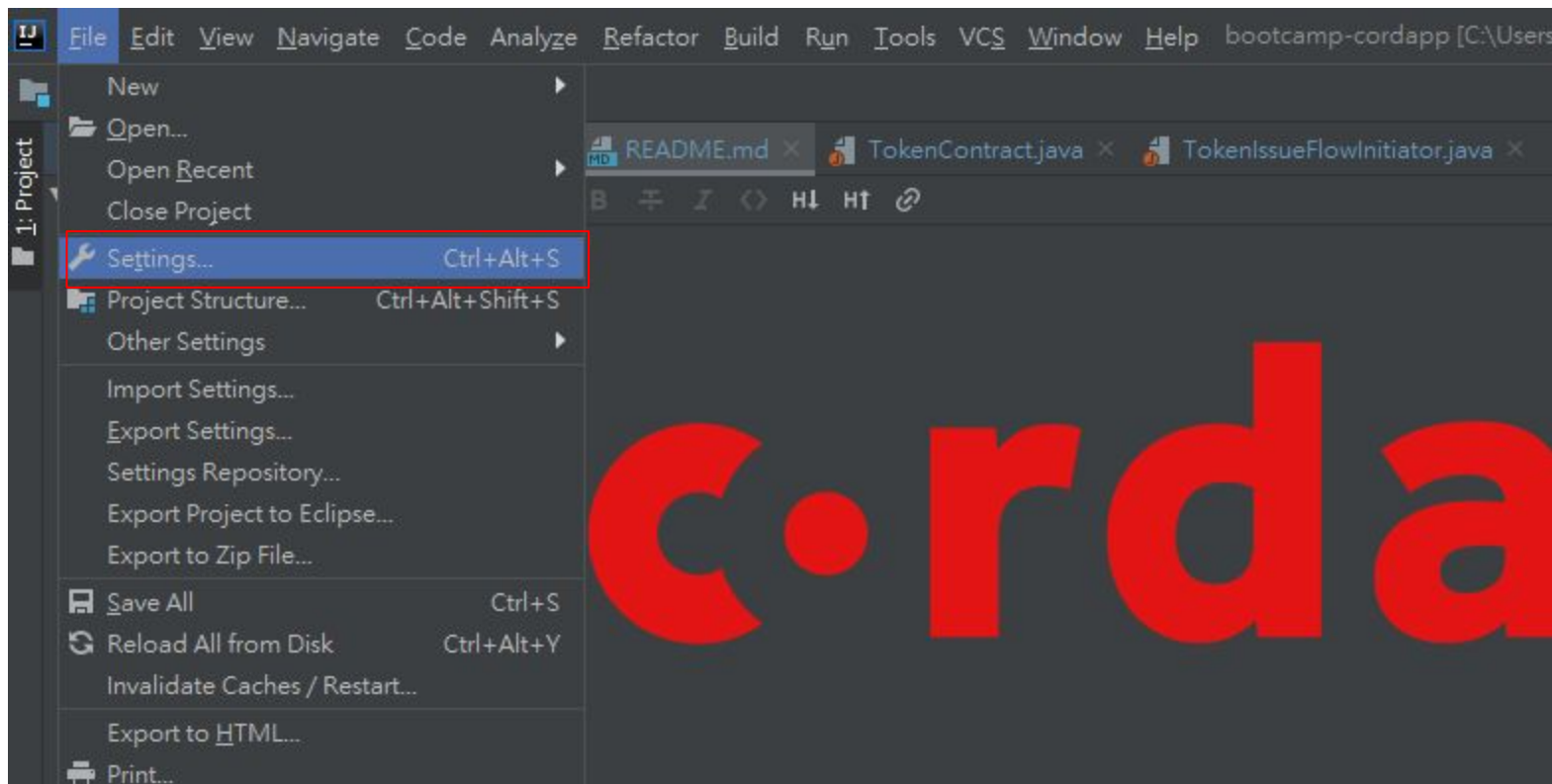
IntelliJ IDEA found a Gradle build script // Import Gradle Project Skip (4 minutes ago)

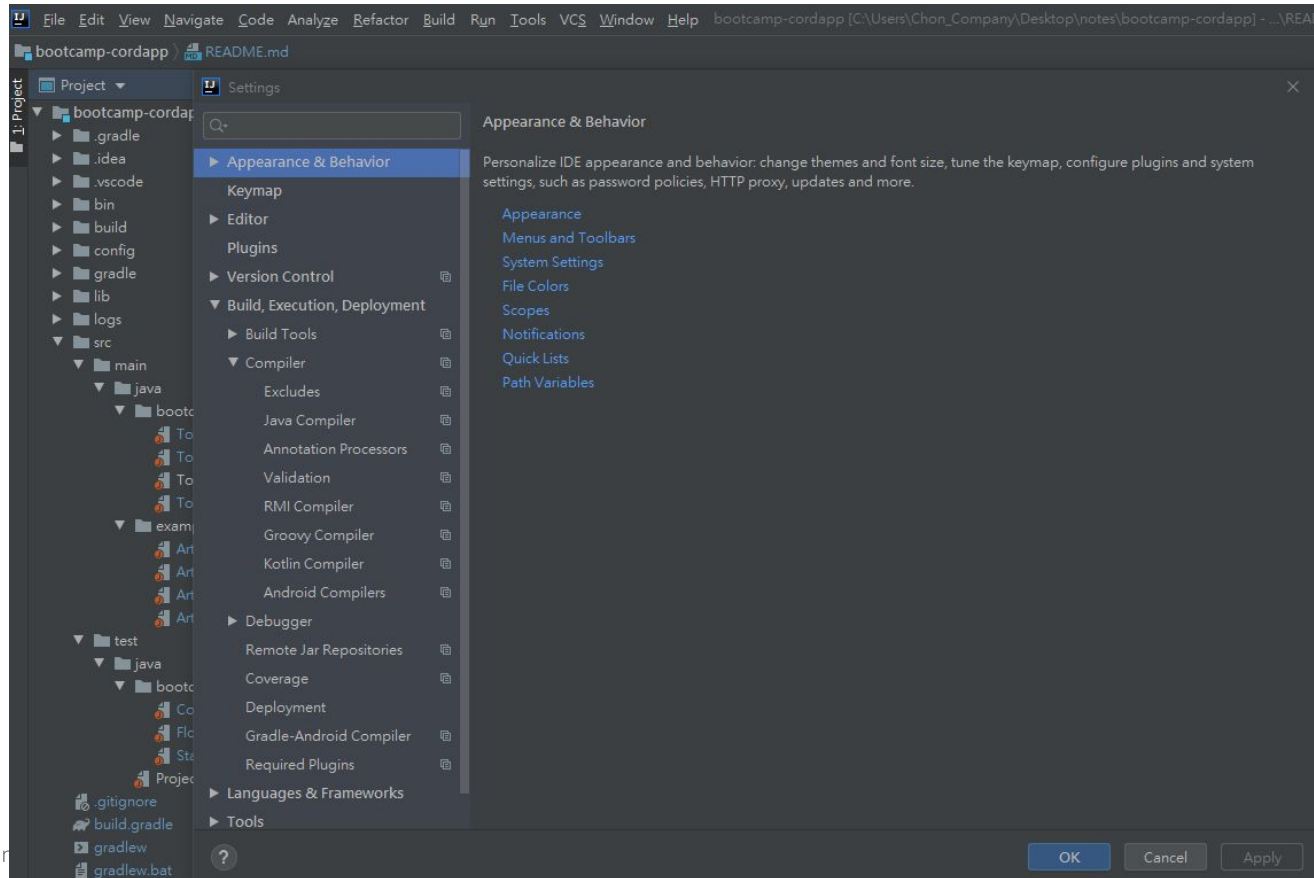
Event Log

CRLF UTF-8 4 spaces Git v4

International Blockchain Olympiad







Settings

Q- kotlin

- Appearance & Behavior
 - Notifications
- Editor
 - General
 - Gutter Icons
 - Color Scheme
 - Kotlin
 - Code Style
 - Kotlin
 - Inspections
 - Kotlin
 - Live Templates
 - Copyright
 - Formatting
 - Kotlin
 - Inlay Hints
 - Kotlin
 - Intentions
- Plugins
- Build, Execution, Deployment
 - Compiler
 - Kotlin Compiler
 - Debugger
 - Data Views
 - Kotlin

Editor > Color Scheme > Kotlin

Scheme: Darcula

- Annotation
- Braces and Operators
- Classes and Interfaces
- Comments
- Dsl
- Functions
- Keyword
- Label
- Modifier
- Named argument
- Number
- Parameters

```
4
5 /**
6  * Doc comment here for `SomeClass`
7  * @see Iterator#next()
8  */
9 @Deprecated("Deprecated class")
10 private class MyClass<out T : Iterable<T>>(var prop1 : Int) {
11     fun foo(nullable : String?, r : Runnable, f : () -> Int, fl : FunctionLike, dyn: dynamic) {
12         println("length\nis ${nullable?.length} \n e")
13         println(nullable!!.length)
14         val ints = java.util.ArrayList<Int>?(2)
15         ints[0] = 102 + f() + fl()
16         val myFun = { -> "" };
17         var ref = ints.size
```

Settings

Build, Execution, Deployment > Compiler > Kotlin Compiler For current project

☒ Report compiler warnings
☐ Enable new type inference algorithm for IDE analysis

Language version: Latest stable (1.3)
API version: Latest stable (1.3)
Additional command line parameters: -version
☒ Keep compiler process alive between invocations

Kotlin to JVM

☒ Enable incremental compilation
Target JVM version: 1.6

Kotlin to JavaScript

☒ Enable incremental compilation
☐ Generate source maps

Add prefix to paths in source map:
Embed source code into source map: When inlining a function from other module with embedded sources
File to prepend to generated code:
File to append to generated code:
☒ Copy library runtime files
Destination directory: lib
Module kind: Plain (put to global scope)

OK Cancel Apply

▼ Appearance & Behavior

Notifications

▼ Editor

▼ General

Gutter Icons

▼ Color Scheme

Kotlin

▼ Code Style

Kotlin

Inspections

Live Templates

▼ Copyright

▼ Formatting

Kotlin

▼ Inlay Hints

Kotlin

Intentions

Plugins

▼ Build, Execution, Deployment

▼ Compiler

Kotlin Compiler

▼ Debugger

▼ Data Views

Kotlin

Build, Execution, Deployment > Compiler > Kotlin Compiler

For current project

☒ Report compiler warnings☐ Enable new type inference algorithm for IDE analysis

Language version

Latest stable (1.3)

API version

Latest stable (1.3)

Additional command line parameters:

-version

☒ Keep compiler process alive between invocations

Kotlin to JVM

☒ Enable incremental compilation

Target JVM version

1.8

1.6

1.8

9

10

11

12

1.6

Kotlin to JavaScript

☒ Enable incremental compilation☐ Generate source maps

Add prefix to paths in source map:

Embed source code into source map:

File to prepend to generated code:

File to append to generated code:

☒ Copy library runtime files

Destination directory

lib

Module kind:

Plain (put to global scope)

Settings

Q kotlin

▼ Appearance & Behavior

Notifications

▼ Editor

▼ General

Gutter Icons

▼ Color Scheme

Kotlin

▼ Code Style

Kotlin

Inspections

Live Templates

▼ Copyright

▼ Formatting

Kotlin

▼ Inlay Hints

Kotlin

Intentions

Plugins

▼ Build, Execution, Deployment

▼ Compiler

Kotlin Compiler

▼ Debugger

▼ Data Views

Kotlin

Build, Execution, Deployment > Compiler > Kotlin Compiler

For current project

Reset

☒ Report compiler warnings

☐ Enable new type inference algorithm for IDE analysis

Language version Latest stable (1.3)

API version Latest stable (1.3)

Additional command line parameters: ~version

☒ Keep compiler process alive between invocations

Kotlin to JVM

☒ Enable incremental compilation

Target JVM version 1.8

Kotlin to JavaScript

☒ Enable incremental compilation

☐ Generate source maps

Add prefix to paths in source map:

Embed source code into source map: When inlining a function from other module with embedded sources

File to prepend to generated code:

File to append to generated code:

☒ Copy library runtime files

Destination directory lib

Module kind: Plain (put to global scope)

OK

Cancel

Apply

International Blockchain Olympiad