

Good by tabaco

Spring boot

개발환경 가이드

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황정민

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1. Java 개발키트(JDK)

1) openjdk 17 다운로드

<https://adoptium.net/?variant=openjdk17> 에서 jdk17을 다운받아준다.

Prebuilt OpenJDK Binaries for Free!

Java™ is the world's leading programming language and platform. The Adoptium Working Group promotes and supports high-quality, TCK certified runtimes and associated technology for use across the Java™ ecosystem. Eclipse Temurin is the name of the OpenJDK distribution from Adoptium.

Download Temurin for Windows x64



Latest release

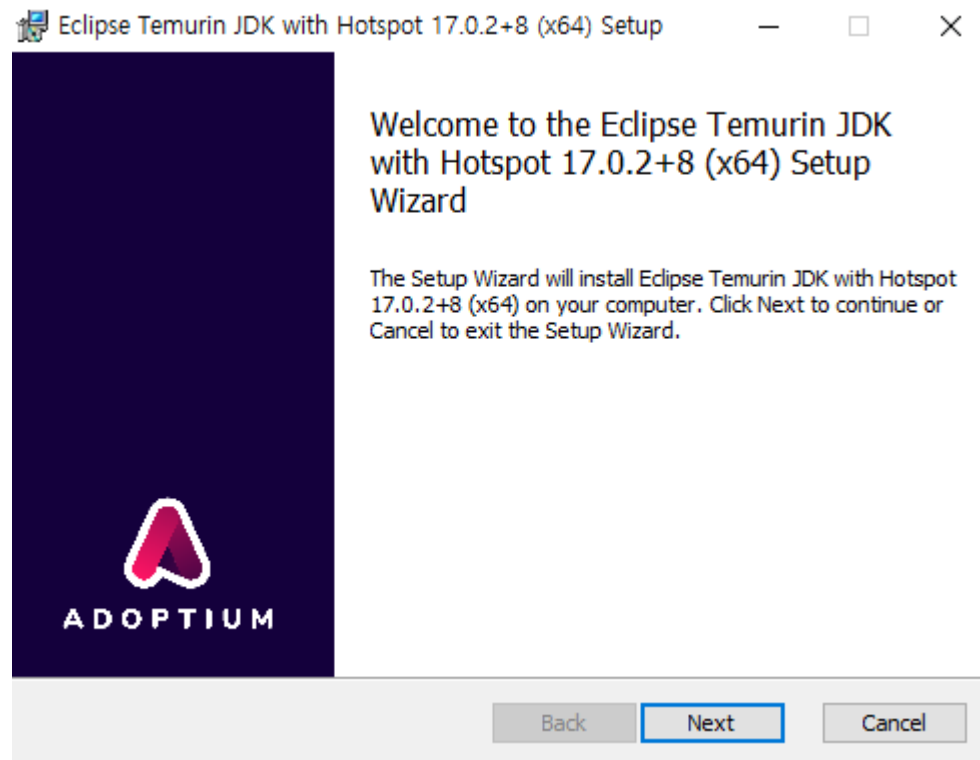
jdk-17.0.2+8

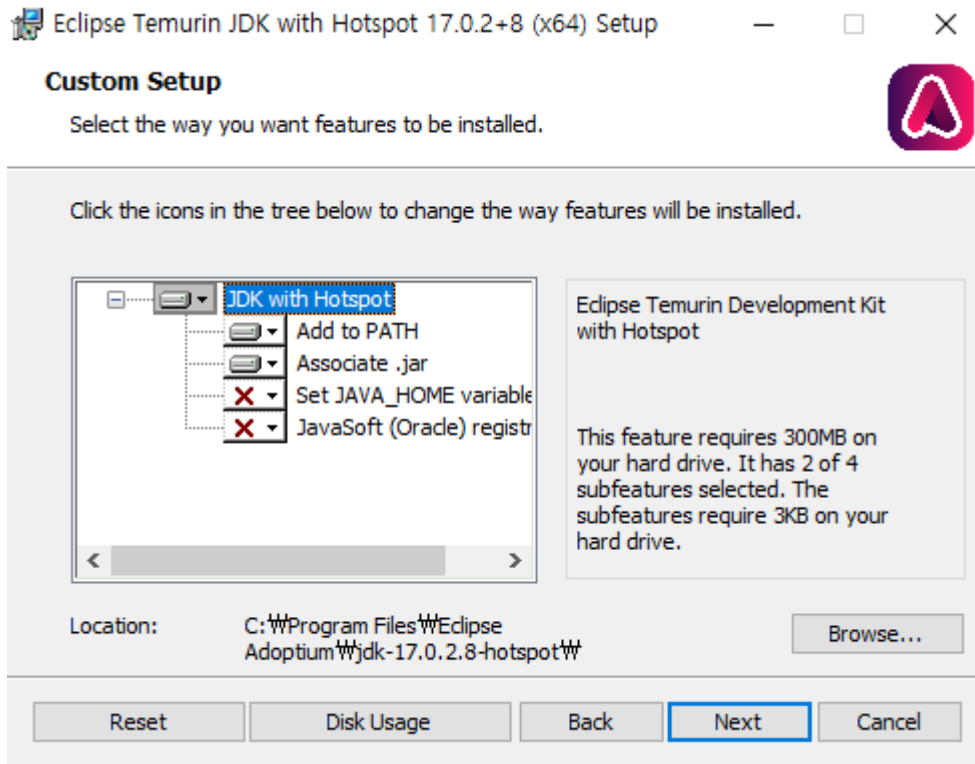
Other platforms →

Release archive 📦

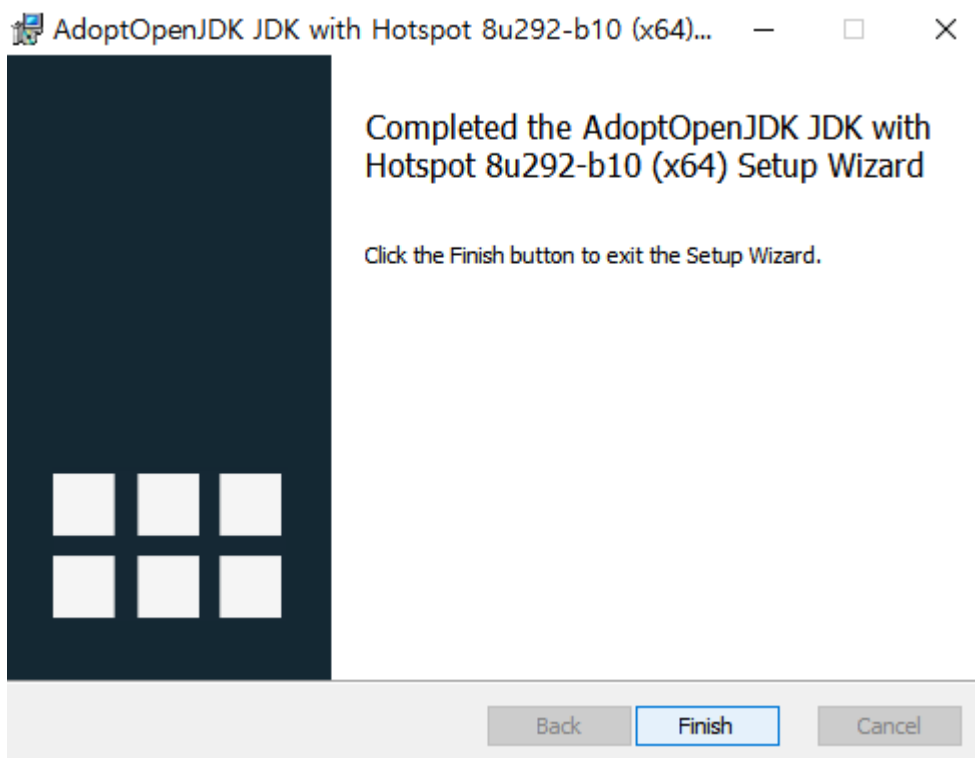
2) openjdk 17 설치

라테스트 릴리즈를 누르면 자동으로 다운로드되는 msi파일 실행





Next를 누른다



Finish를 누르면 JDK 설치 완료

2. 통합 개발자 환경 (IDE)

1) IntelliJ IDEA Community 다운로드

<https://www.jetbrains.com/idea/download/#section=windows> 접속



Version: 2021.1.3
Build: 211.7628.21
29 June 2021

[Release notes](#)

[System requirements](#)

[Installation Instructions](#)

[Other versions](#)

Download IntelliJ IDEA

[Windows](#) [macOS](#) [Linux](#)

Ultimate

For web and enterprise development

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.exe ▼

Free 30-day trial

Community

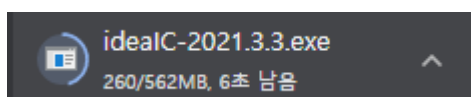
For JVM and Android development

Download

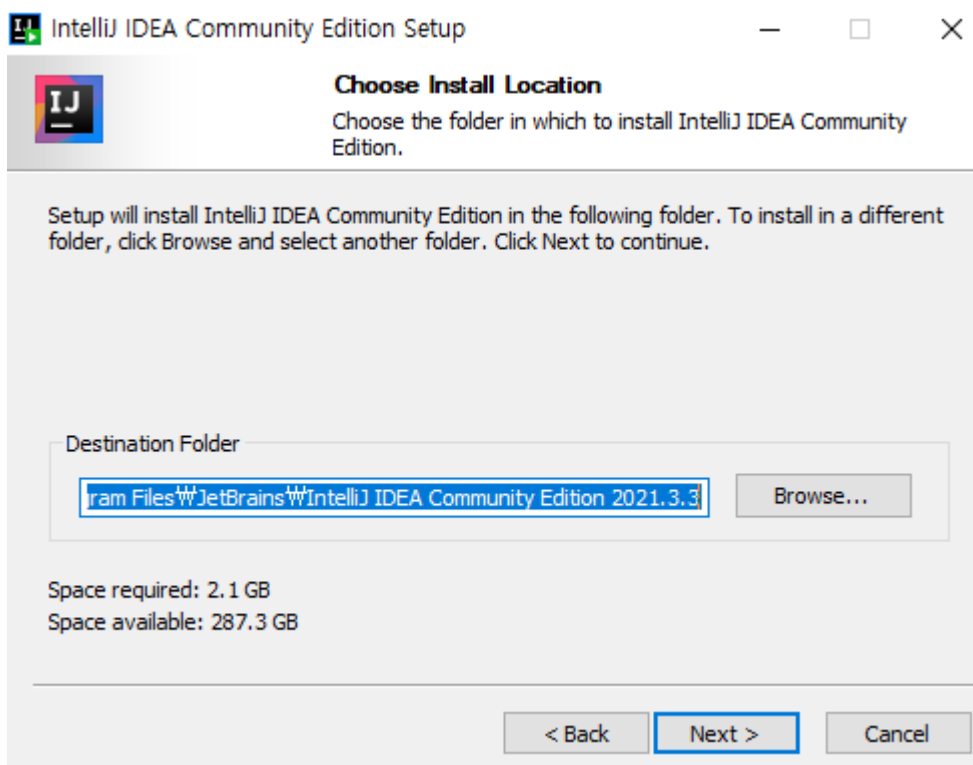
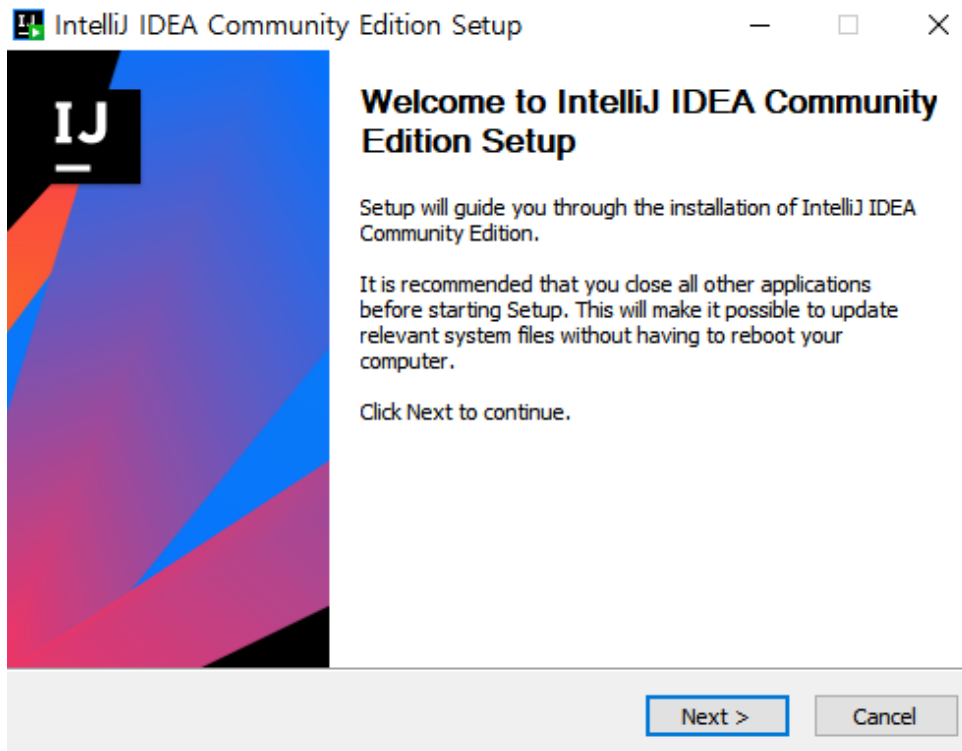
.exe ▼

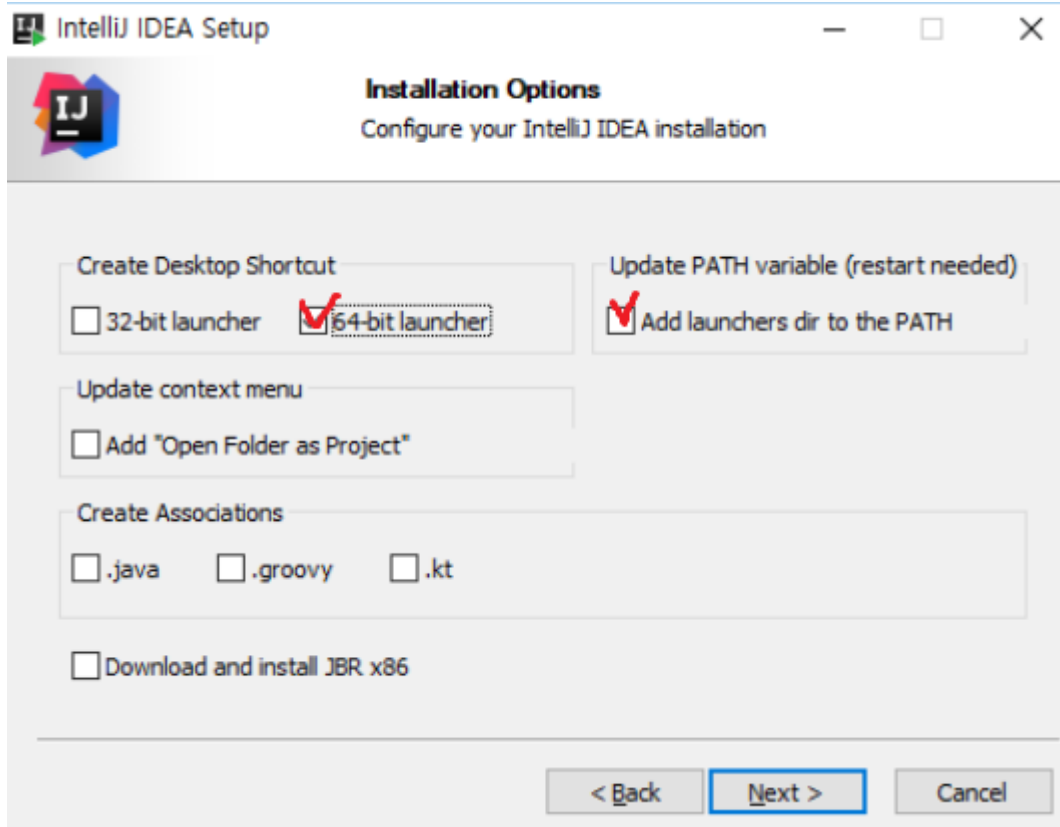
Free, built on open source

Ultimate는 유료버전이므로 Community 무료버전을 다운로드한다.

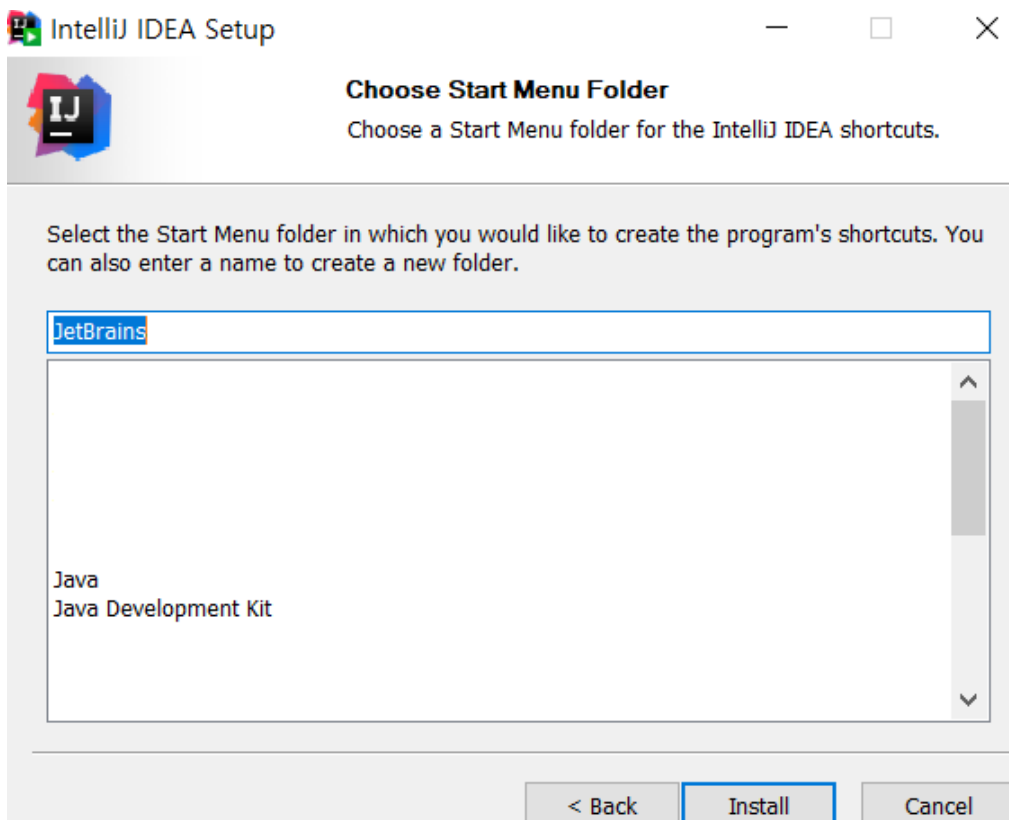


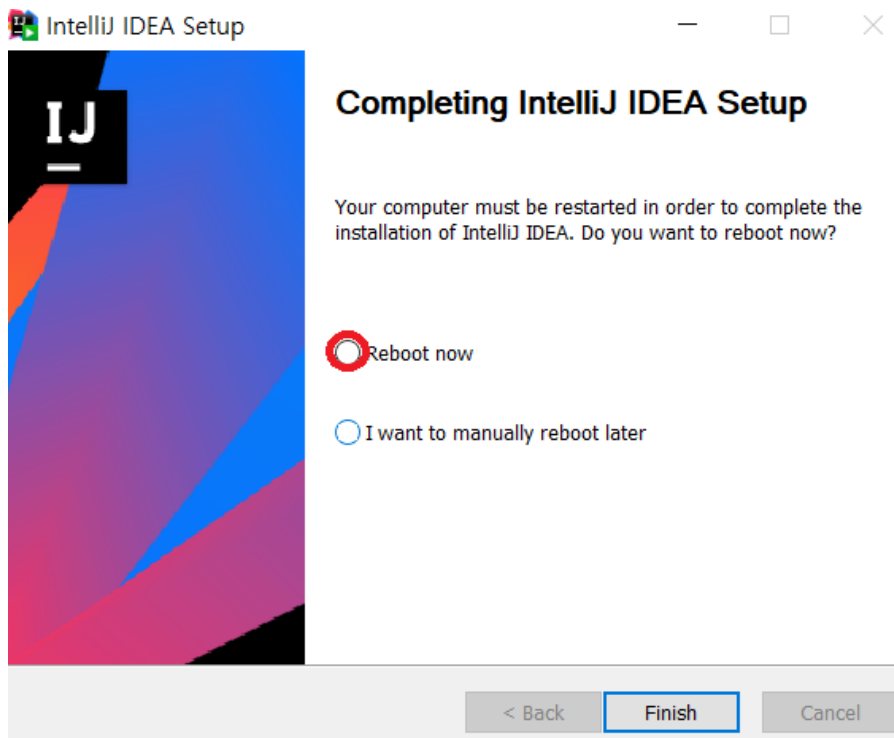
2) IntelliJ IDEA Community 설치





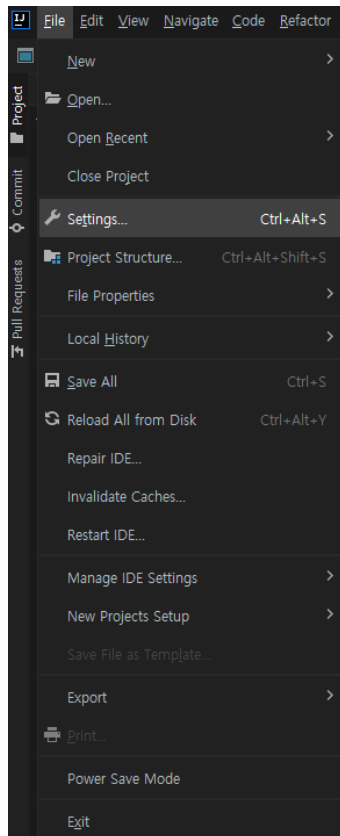
운영체제에 비트에 맞는 런처와 PATH 경로설정에 체크해준다.



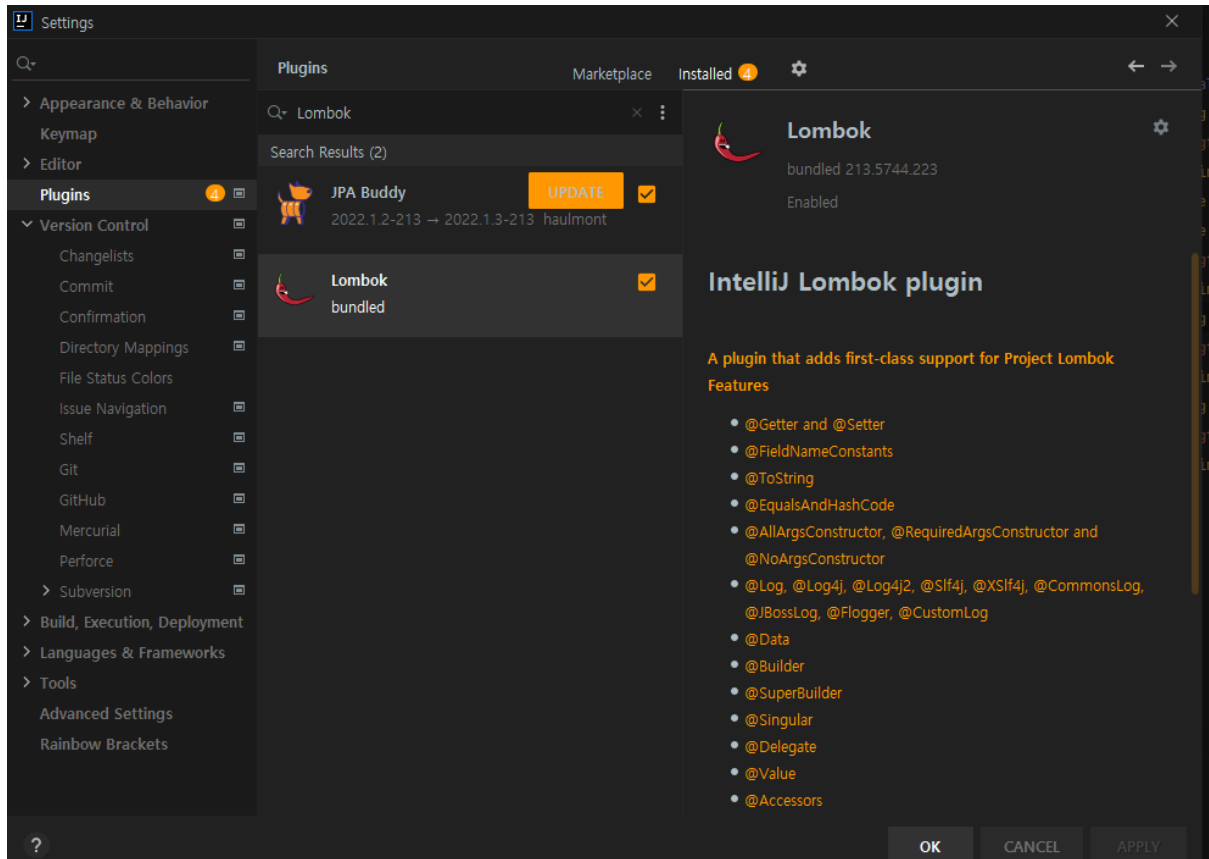


리부트 나우에 체크후 Finish를 누르면 자동재부팅후 설치가 완료된다.

3) IntelliJ IDEA Community plugin 설정



File - Settings를 눌러준다.

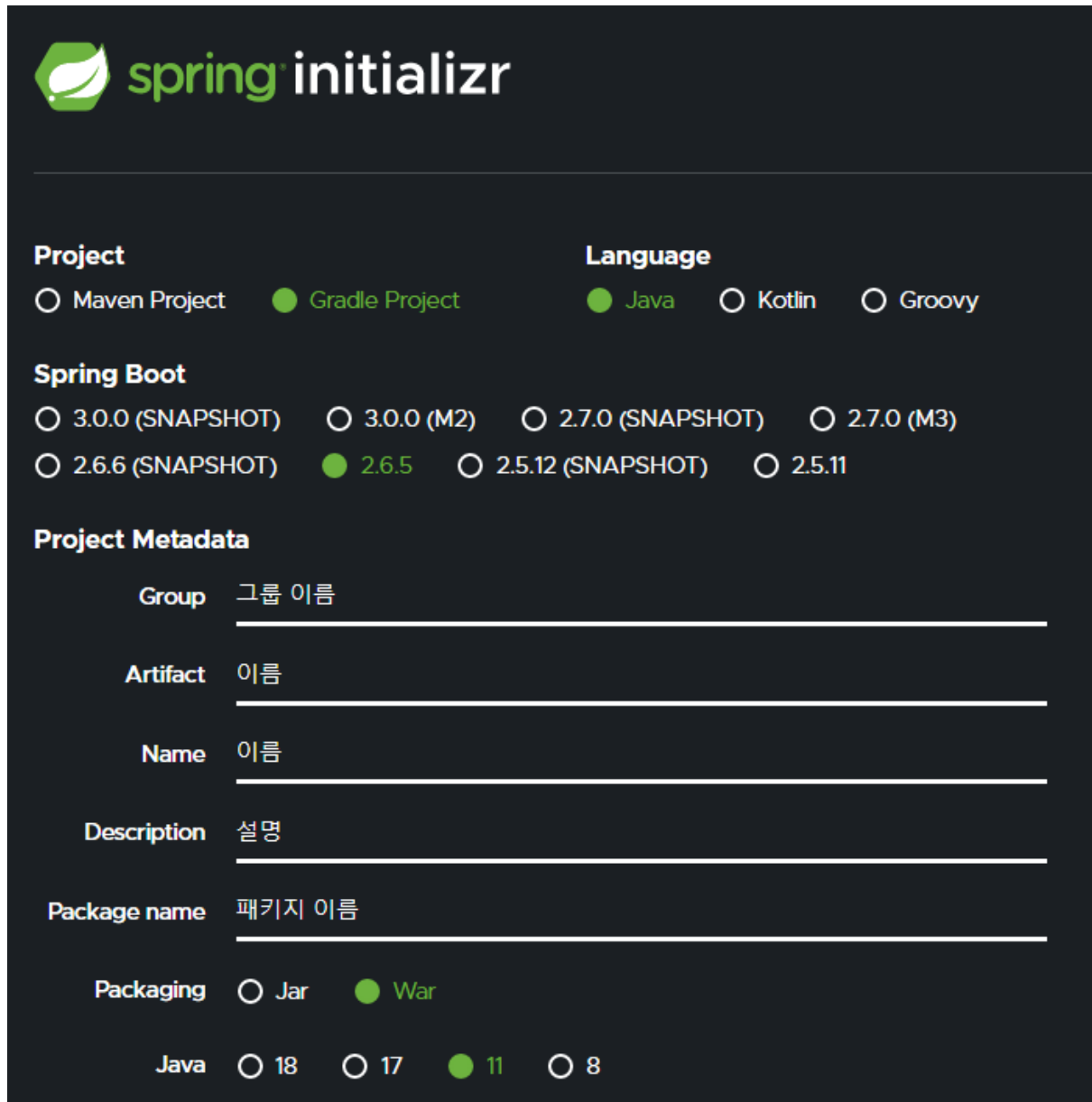


Plugins에 Lombok을 검색해서 설치해준다.

3. Springboot 프로젝트 구성

1) Spring initializr

<https://start.spring.io/> 접속

The image shows the Spring Initializr web form. At the top is the Spring Initializr logo. Below it, there are three sections: 'Project', 'Language', and 'Spring Boot'. The 'Project' section has two radio buttons: 'Maven Project' and 'Gradle Project', with 'Gradle Project' selected. The 'Language' section has three radio buttons: 'Java', 'Kotlin', and 'Groovy', with 'Java' selected. The 'Spring Boot' section has eight radio buttons for different versions: '3.0.0 (SNAPSHOT)', '3.0.0 (M2)', '2.7.0 (SNAPSHOT)', '2.7.0 (M3)', '2.6.6 (SNAPSHOT)', '2.6.5', '2.5.12 (SNAPSHOT)', and '2.5.11', with '2.6.5' selected. Below these sections is the 'Project Metadata' section, which contains five text input fields: 'Group' (labeled '그룹 이름'), 'Artifact' (labeled '이름'), 'Name' (labeled '이름'), 'Description' (labeled '설명'), and 'Package name' (labeled '패키지 이름'). At the bottom, there is a 'Packaging' section with two radio buttons: 'Jar' and 'War', with 'War' selected. Below that is a 'Java' section with four radio buttons for versions: '18', '17', '11', and '8', with '11' selected.

프로젝트는 Gradle Project, 언어는 JAVA, 버전은 2.6.5에 체크, 패키지는 war, 자바버전은 11체크

Gradle의 장점 - Maven에 비해 권한있고 책임있는 사용자를 염두해 두고 구축되어 자동화 문제에 적합하고 아래 3가지 특징에 의해 대부분의 시나리오에서 Maven보다 빌드 성능이 2배이상 뛰어남. 1. 작업의 입출력을 추적, 필요한 것만 실행하고 처리 2. 같은 기기에 동일한 입력이 있을 경우 Gradle 빌드 캐시의 결과를 재사용함. 3. 빌드 정보를 메모리에 올려 유지하는 수명이 긴 Daemon process를 사용함.

2) 의존성(Dependencies) 설정

Dependencies

ADD DEPENDENCIES... CTRL + B

Spring Data JPA

SQL

Persist data in SQL stores with Java Persistence API using Spring Data and Hibernate.

Thymeleaf

TEMPLATE ENGINES

A modern server-side Java template engine for both web and standalone environments. Allows HTML to be correctly displayed in browsers and as static prototypes.

Spring Web

WEB

Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

Validation

I/O

Bean Validation with Hibernate validator.

Lombok

DEVELOPER TOOLS

Java annotation library which helps to reduce boilerplate code.

Spring Boot DevTools

DEVELOPER TOOLS

Provides fast application restarts, LiveReload, and configurations for enhanced development experience.

MySQL Driver

SQL

MySQL JDBC and R2DBC driver.

Spring Security

SECURITY

Highly customizable authentication and access-control framework for Spring applications.

위 화면과 같은 의존성들을 추가한다.

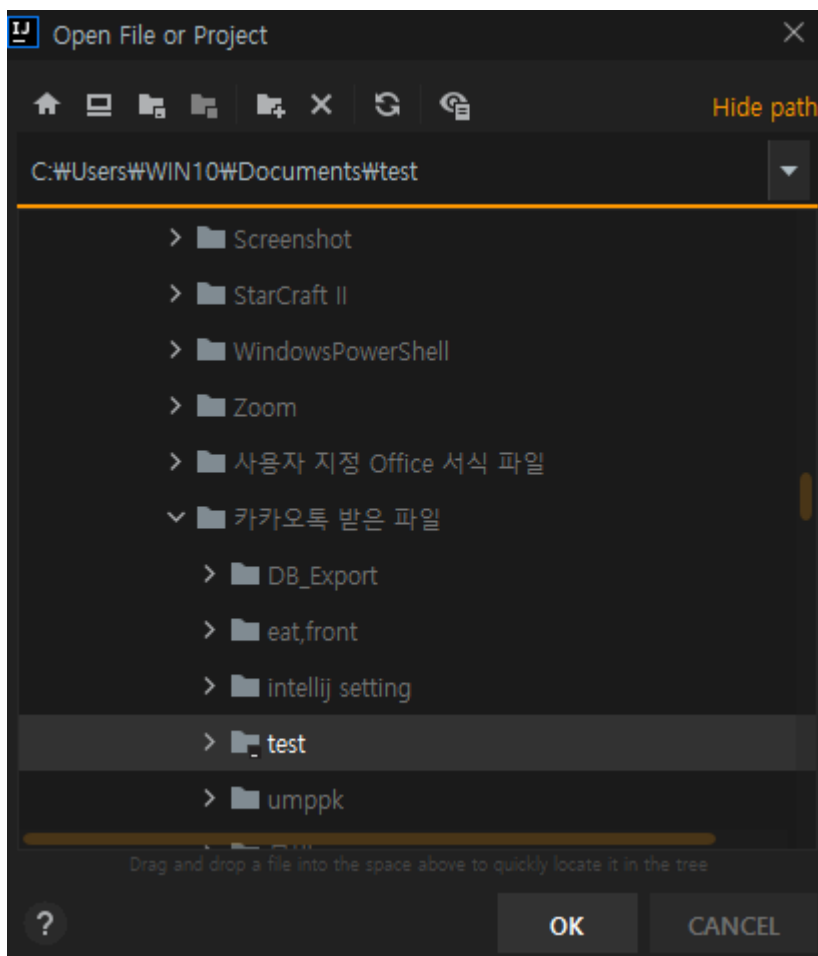
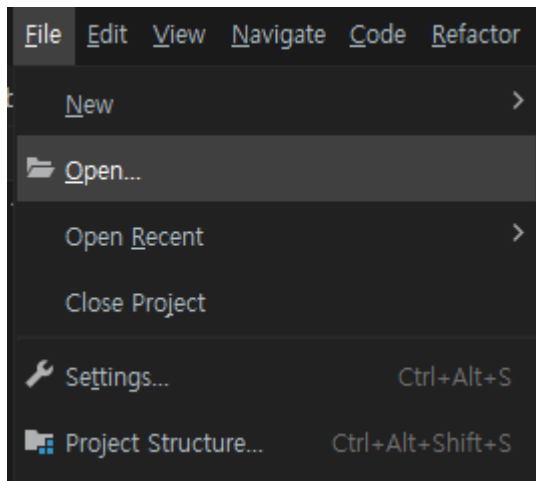
마지막으로

GENERATE CTRL + ⌘

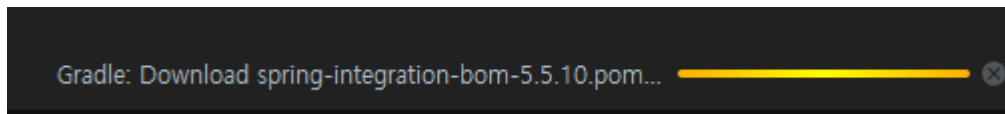
생성을 누르면 프로젝트가 압축파일로 생성된다.

3) Project structure 환경설정

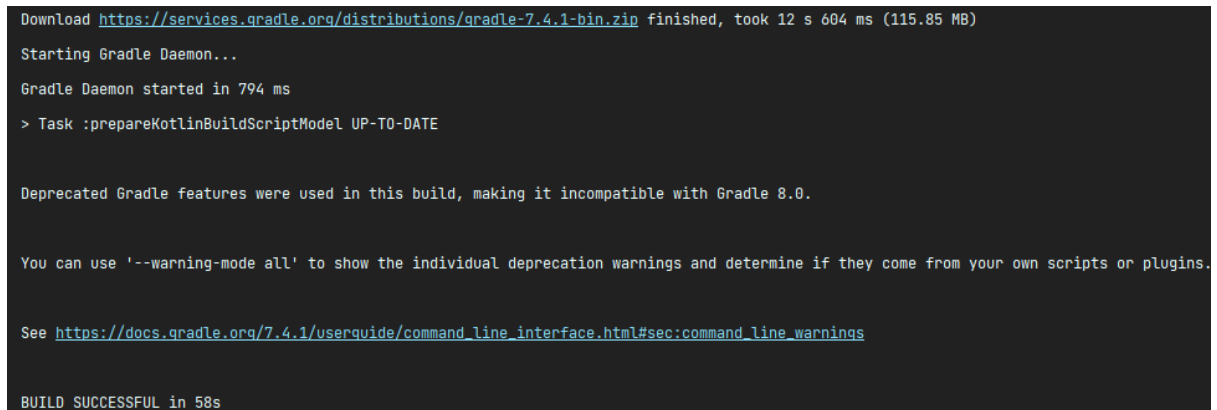
IntelliJ에서 File - open을 눌러 압축을 푼 폴더를 통째로 선택한다.



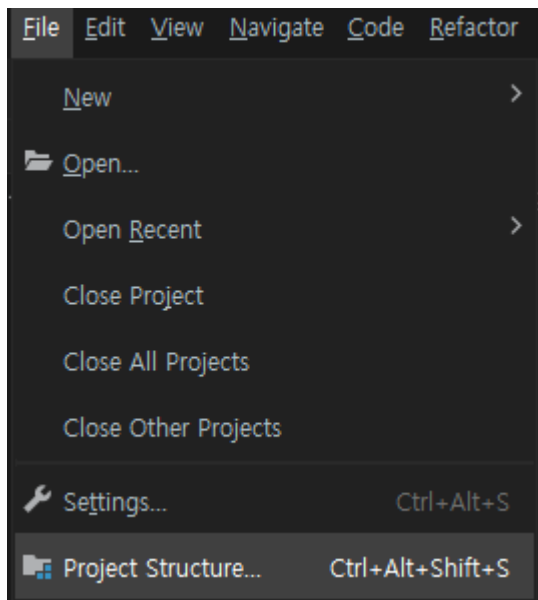
폴더째로 열면 자동으로 다운로드가 시작된다.



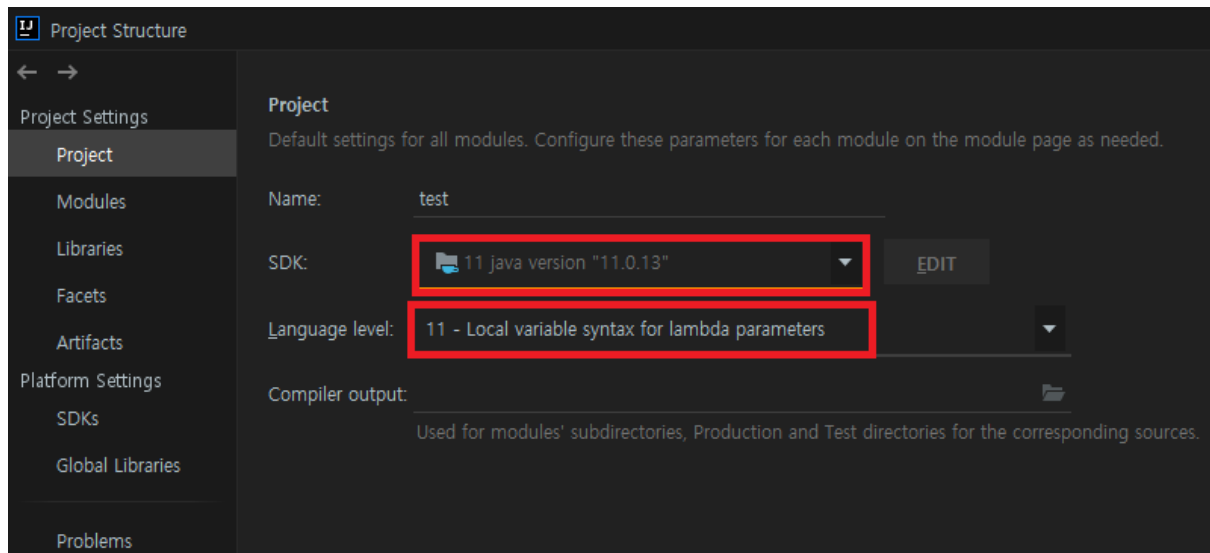
다운로드와 빌드 및 테스트가 끝날때까지 기다린다.



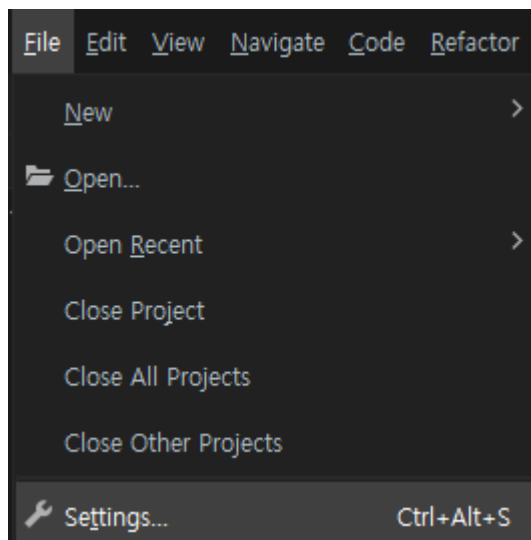
File - project structure 선택



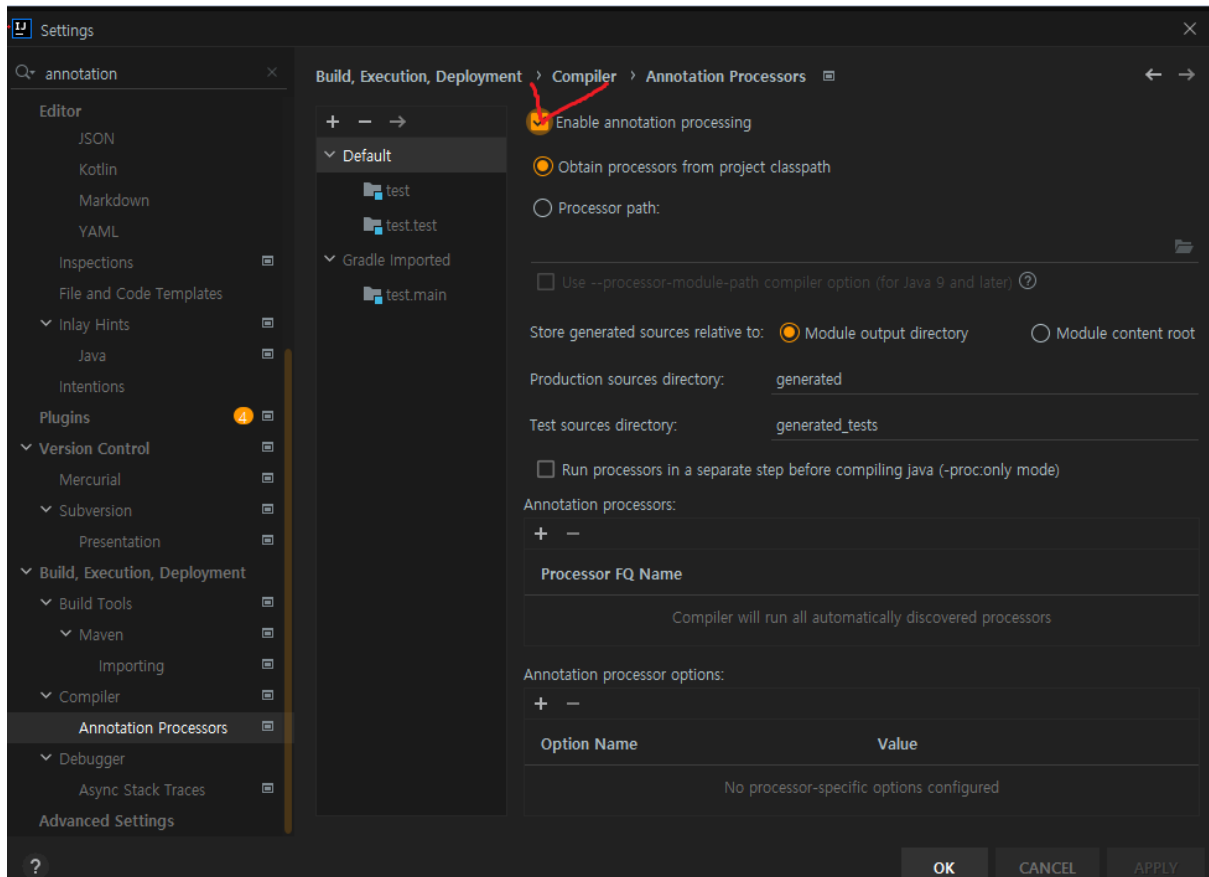
다음과 같은 화면이 뜨면 SDK와 Language level을 모두 11로 설정한다.



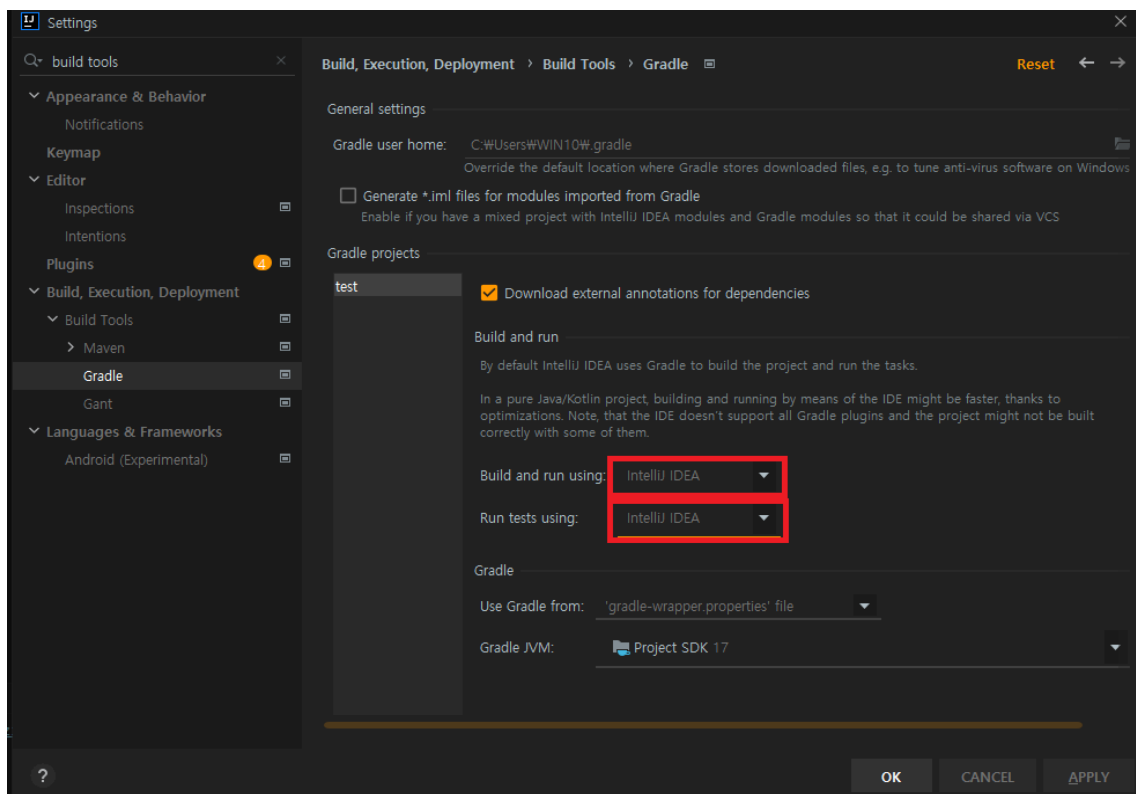
4) IntelliJ 환경설정



File - Settings를 들어간다.

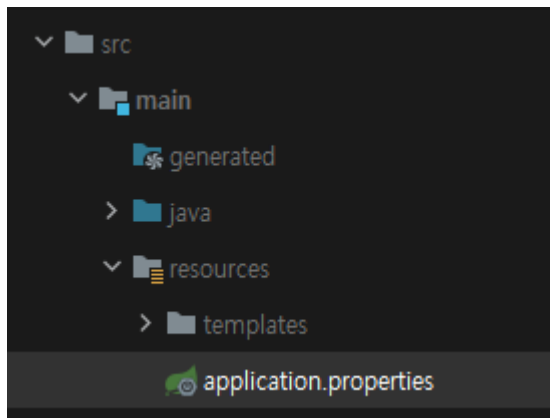


이와같은 화면이 뜨면 왼쪽에 annotation이라고 검색 후 Enable annotation processing에 체크



build tools라고 검색 후 오른쪽 두 항목을 모두 IntelliJ IDEA로 바꿔준다.

5) applictaion.properties 설정



src-main-resources 안의 application.properties를 열어준다.

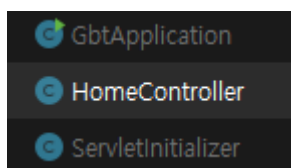
```
spring.jpa.hibernate.ddl-auto = update
spring.datasource.url = jdbc:mysql://gbt-final-rds-1b.cax08uafg14.us-west-1.rds.amazonaws.com/final_db
spring.datasource.username = admin
spring.datasource.password = password
spring.datasource.driver-class-name = com.mysql.cj.jdbc.Driver
spring.jpa.show-sql = true
```

이와같이 입력한다.

datasource.url에는 실질적 db의 엔드포인트 주소를 입력한다.

6) 테스트 html 작성및 정상작동 확인

Application과 같은 경로에 클래스 HomeController, ServletInitailizer추가후 아래와 같은 코드 작성



```

package ksafinalproject.gbt;

import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.GetMapping;

@Controller
public class HomeController {

    @GetMapping
    public String home() { return "home"; }
}

```

```

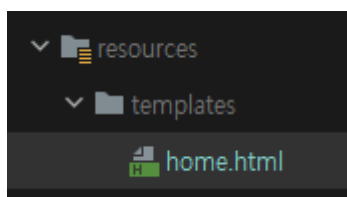
package ksafinalproject.gbt;

import org.springframework.boot.builder.SpringApplicationBuilder;
import org.springframework.boot.web.servlet.support.SpringBootServletInitializer;

public class ServletInitializer extends SpringBootServletInitializer {

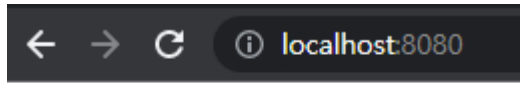
    @Override
    protected SpringApplicationBuilder configure(SpringApplicationBuilder application) {
        return application.sources(GbtApplication.class);
    }
}

```



resources - templates 경로안에 home.html추가후 아래 테스트코드 작성

웹 브라우저에서 localhost:8080 접속 후 아래와 같이 뜨면 테스트 html 구동에 성공



헬로우 엄준식

다음은 규칙에 맞게 패키지 및 코드를 작성하면 된다.