Hands On Exercises
Working with Azure Repos in DevOps

Lab 1 Working with Azure Repos

Eclipse 를 사용하여 기본 Spring Boot Java project 를 생성한 후 Azure Repos 와 연동 합니다. 이후 local machine 에서 개발을 하고 Azure Repos repository 에 push 해서 commit 를 합니다.

1. Setup Spring Project from Spring Tools Suite 4
   - 1.1 Create project folder. The name of the folder must be the same as your project name. In our case, this is st##-e2edemo
   - 1.2 File > New > Spring Starter Project
   - 1.3 Name = <st##>-e2edemo
   - 1.4 Uncheck -> Use default location
   - 1.5 Location > Browse and point to your Java project folder
   - 1.6 Type = Maven Project
   - 1.7 Packaging = WAR
   - 1.8 Java Version = 17
   - 1.9 Language = Java
   - 1.10 Group: com.<your_company>
   - 1.11 Artifact: <st##>-e2edemo
   - 1.12 Version: 0.0.1-SNAPSHOT
   - 1.13 Description = Demo Project for end2end
   - 1.14 Package = com.<your-company>.e2edemo
   - 1.15 [Next]
   - 1.16 Spring Boot Version = 3.3.4
   - 1.17 Dependencies to add
     - 1.17.1 Spring Web
   - 1.18 [Finish]
2. Create simple “Hello World” application
   - 2.1 src\main\com.wiken.e2edemo 에서 “HelloWorldController.java” 새로 파일 생성
   - 2.2 만들어진 template 에서 아래 위치에 @RestController annotation 을 추가 하고 CTRL-SHIFT-O 하면 자동으로 필요한 “import” 문 추가 합니다

```
package com.wiken.e2edemo;

@RestController
public class HelloWorldController {
}
```

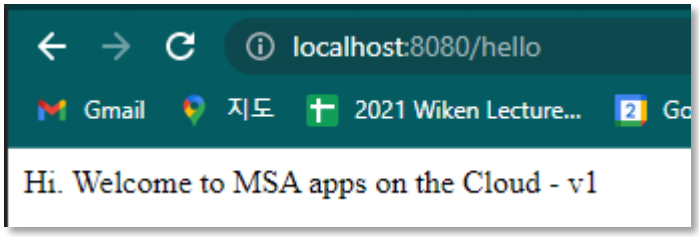
2.3 나머지 코드를 아래와 같이 입력. @GetMapping annotation 을 입력 하면 VS Code 가 자동으로 필요한 "Import" 문을 추가 합니다

```
package com.wiken.e2edemo;

import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;

@RestController
public class HelloWorldController {

    @GetMapping("/hello")
    public String sayHello() {
        return "Hi. Welcome to CNA apps on the Cloud - v1";
    }

}
```

3. Local 에서 실행

3.1 Spring Boot Dashboard 선택 후 상단 "APPS" 에서 e2edemo 실행

3.2 Browser 를 열어서 "localhost:8080/hello" 로 이동 후 정상 적 실행 확인

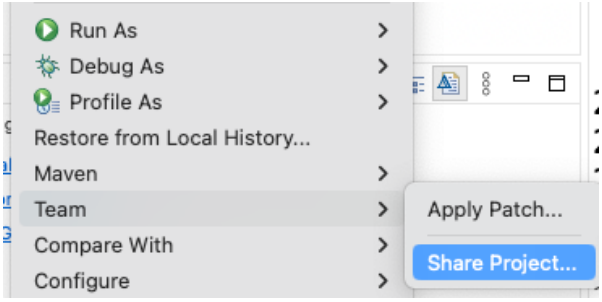


4. Create and link to Azure

4.1 Github repository 등록

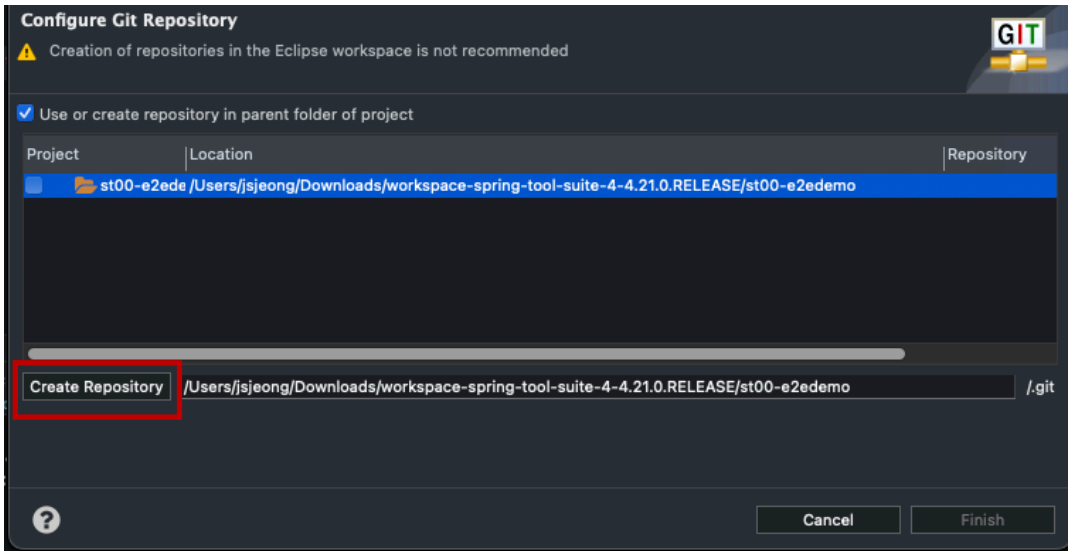
4.1.1 St##-e2edemo project 선택 후, right click

4.1.2 메뉴에서 Team > Share Project 선택



4.1.3 Pop-up 창에서 > Use or create repository in parent folder of project

4.1.4 Project 선택 후 [Create Repository]

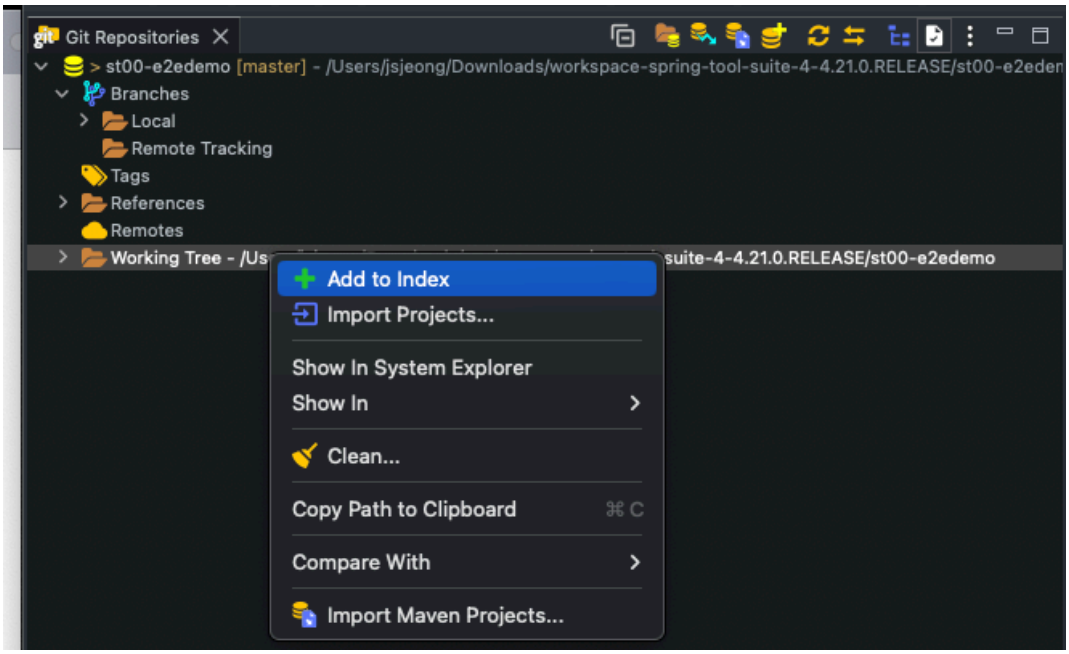


4.1.5 [Finish]

4.2 local source commit 하기

4.2.1 오른쪽 상단에서 Git view 선택하고, git repositories 에서 st##-e2edemo 선택

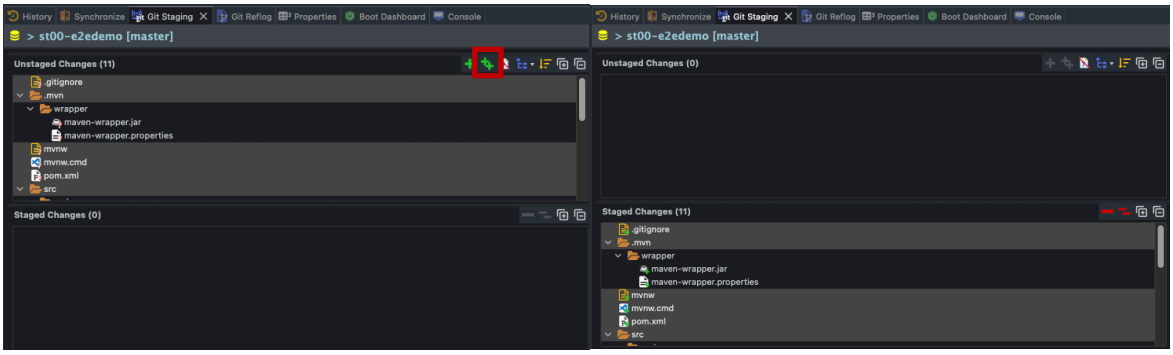
4.2.2 Index working tree (click the right button)에서 Add to index 하기



4.2.3 Git view 선택하고 하단 Git Staging 로 이동

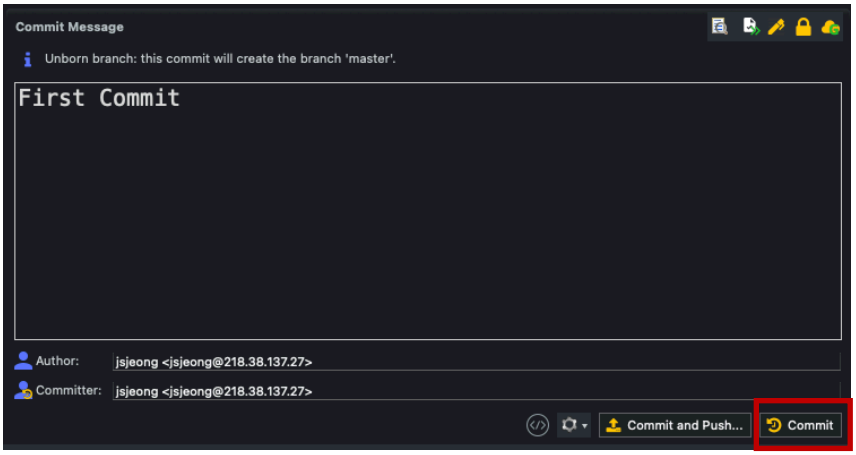
(a) Branches > Local 후 하단에 Git Staging

4.2.4 Select all unstages changes and move to staged change

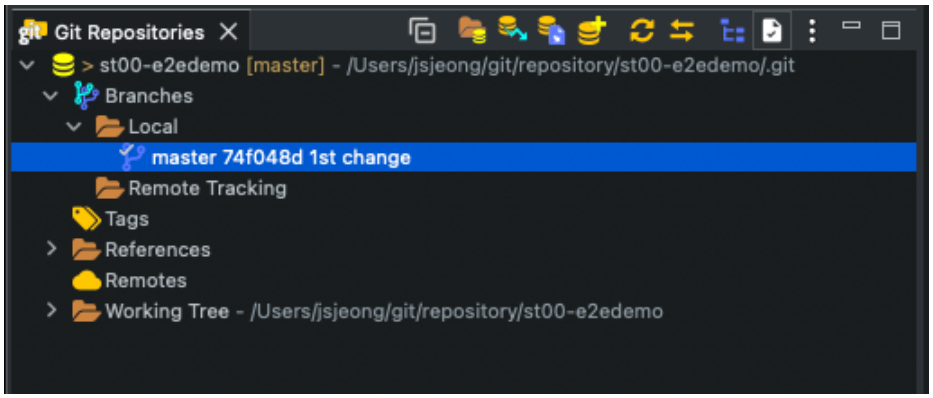


4.2.5 From Commit Message, enter “First Commit”

4.2.6 [Commit] (Be careful. Do not select Commit and Push)

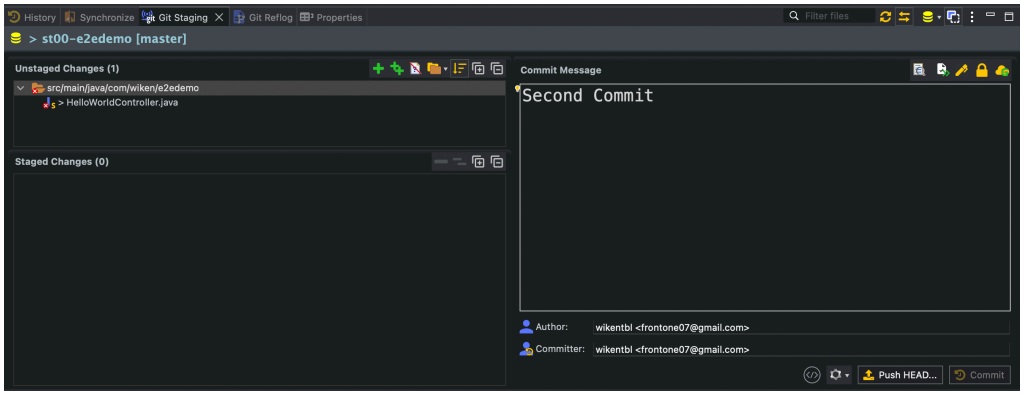


4.2.7 In Git repositories, open Branches > Local again and you will see the First Commit



4.3 Makes changes and commit again

4.3.1 Change the return string to “v2” and save. Go back to Git view > Git Staging. You will see the change reflected



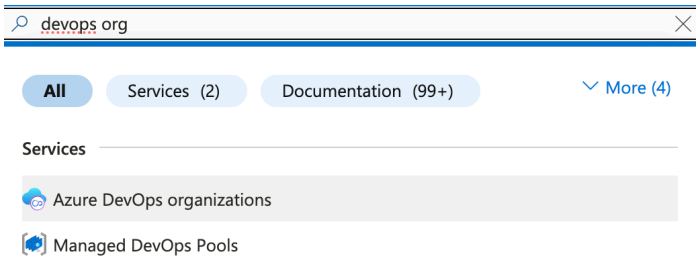
4.3.2 Once again, drag all the changes, enter “Second Commit” for the commit message and [Commit]

4.3.3 You will see the branch updated to Second Commit

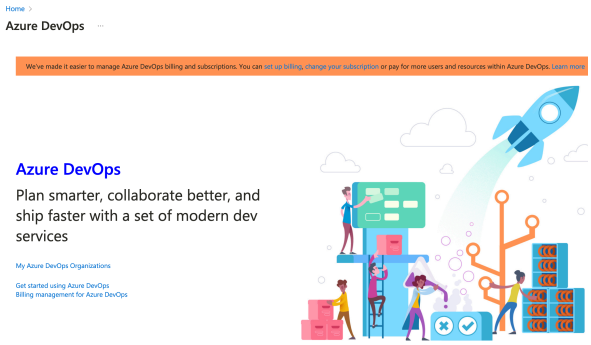
5. Azure Repos 와 연결

5.1 Azure Repos repository 생성

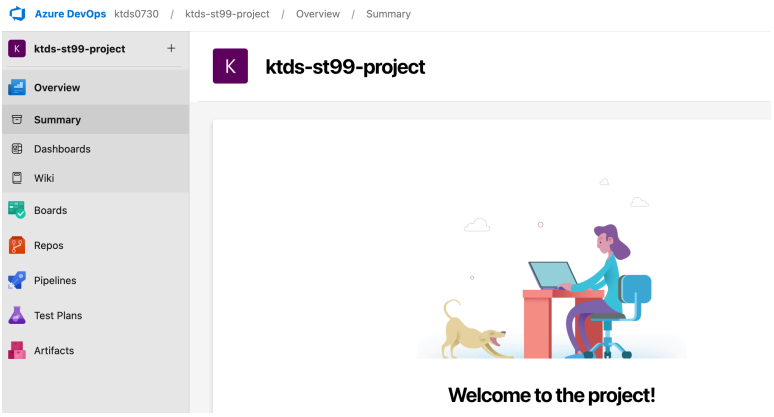
5.1.1 Azure Console 에서 Azure DevOps organization 으로 이동



5.1.2 [My Azure DevOps Organization] 선택



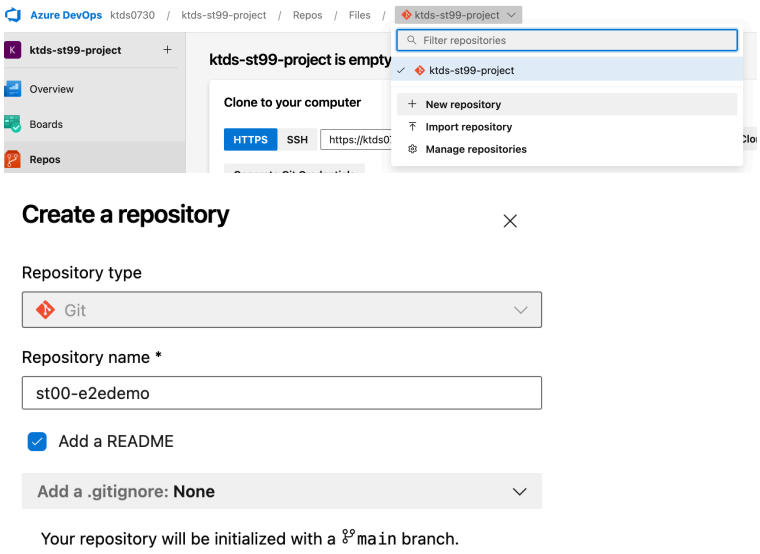
5.1.3 Create project => ktds-st##-project



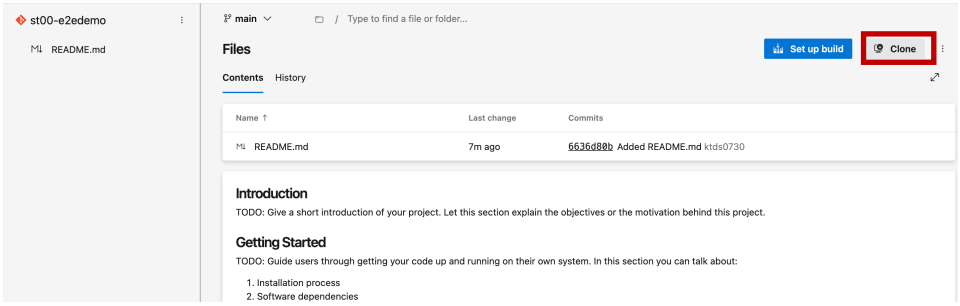
5.1.4 왼쪽 메뉴에서 **Repos** 를 클릭합니다.

5.1.5 **Repos** 탭에서 "새 리포지토리(New repository)" 버튼을 클릭하고, **Git** 을 선택한 뒤 리포지토리 이름을 입력하고 **Create** 버튼을 눌러 리포지토리를 생성합니다.

Repository name = st##-e2edemo



5.1.6 [Create] 클릭 하고 나면 repo 생성.



5.1.7 Copy the address to clone the repository