

OBJECT-ORIENTED SYSTEMS DESIGN

[Exercise]: Getting Started

2022/03/16

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Today's Plan

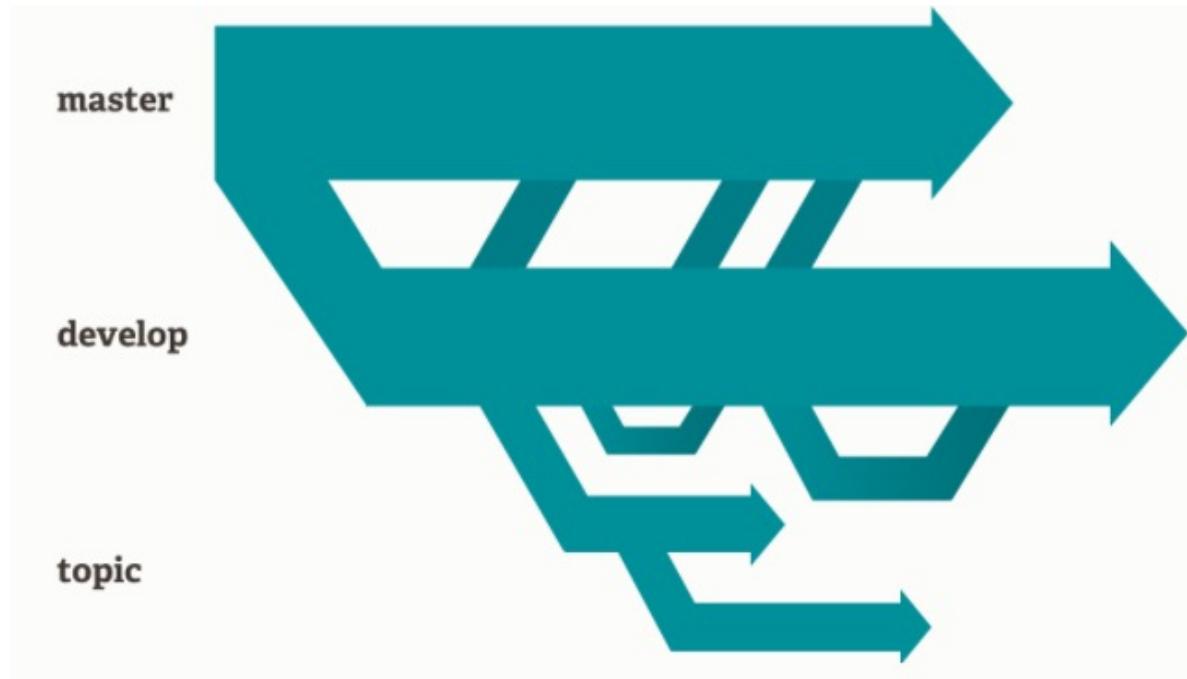
- 1. Introduction to Git and Gitlab: 20 min.**
- 2. Setting an environment for your exercise: 10 min.**
- 3. Getting Started (Chapter 1): 30 min.**

Introduction to Git and Gitlab

System for managing your code

What is “Git”?

- Git is an “Open-source distributed version control system”.



Git allows you to have multiple local branches that can be entirely independent of each other.

Git Ensures

- **Frictionless context switching**

- Create a branch to try out an idea, commit a few times, switch back to where you branched from, apply a patch, switch back to where you are experimenting, and merge it in.

- **Multiple backup**

- This means that even if you're using a centralized workflow, every user essentially has a full backup of the main server. Each of these copies could be pushed up to replace the main server in the event of a crash or corruption.

- **Role-based Codelines**

- Have a branch that always contains only what goes to production, another that you merge work into for testing, and several smaller ones for day-to-day work.

For more information, visit <https://git-scm.com/>

How to Use Gitlab (1)

1. Access <https://hconnect.hanyang.ac.kr> & Sign in with “hanyang”

GitLab Community Edition

Open source software to collaborate on code

Manage Git repositories with fine-grained access controls that keep your code secure. Perform code reviews and enhance collaboration with merge requests. Each project can also have an issue tracker and a wiki.

The image shows the GitLab sign-in page. It features two main sections: 'Sign in' and 'Register'. The 'Sign in' section contains fields for 'Username or email' and 'Password', along with 'Remember me' and 'Forgot your password?' links. Below these is a large green 'Sign in' button. The 'Register' section is partially visible. A second section below titled 'Sign in with' includes a 'Hanyang' button, which is highlighted with a red arrow and the text 'click!'. There is also a 'Remember me' checkbox in this section.

How to Use Gitlab (2)

2. Log in with your HY-in(portal) account



한양대학교 | 로그인

고객님의 정보에 접근하기 위하여 인증이 필요합니다.

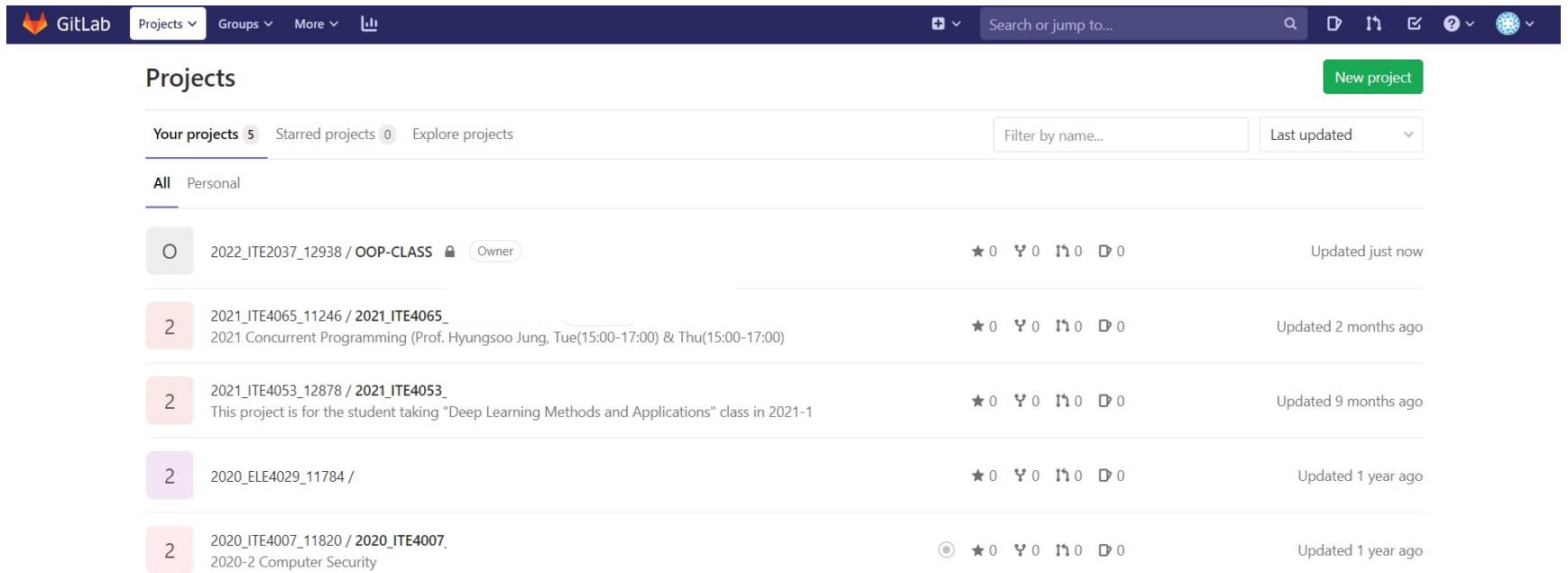
한양대학교 포털 한양인(HY-in)계정으로 로그인 하시기 바랍니다.

Portal Login

ID	<input type="text" value="아이디를 입력하세요"/>	<input type="button" value="로그인"/>
Password	<input type="password" value="비밀번호를 입력하세요"/>	

How to Use Gitlab (3)

3. Check your project list



The screenshot shows the GitLab web interface with the following details:

- Header:** GitLab logo, Projects (selected), Groups, More, search bar "Search or jump to...", and various navigation icons.
- Section Title:** Projects
- Filter Options:** Your projects (5), Starred projects (0), Explore projects, Filter by name..., Last updated dropdown.
- Buttons:** New project
- Project List:**
 - 2022_ITE2037_12938 / OOP-CLASS (Owner): Updated just now
 - 2021_ITE4065_11246 / 2021_ITE4065_ (2 members): Updated 2 months ago
 - 2021_ITE4053_12878 / 2021_ITE4053_ (2 members): This project is for the student taking "Deep Learning Methods and Applications" class in 2021-1. Updated 9 months ago
 - 2020_ELE4029_11784 / (2 members): Updated 1 year ago
 - 2020_ITE4007_11820 / 2020_ITE4007_ (2 members): 2020-2 Computer Security. Updated 1 year ago

**!! Please check “2022_ITE2037_(Your student ID)” project exists !!
(If it doesn’t exist, call TA to join the project)**

How to Use Gitlab (4)

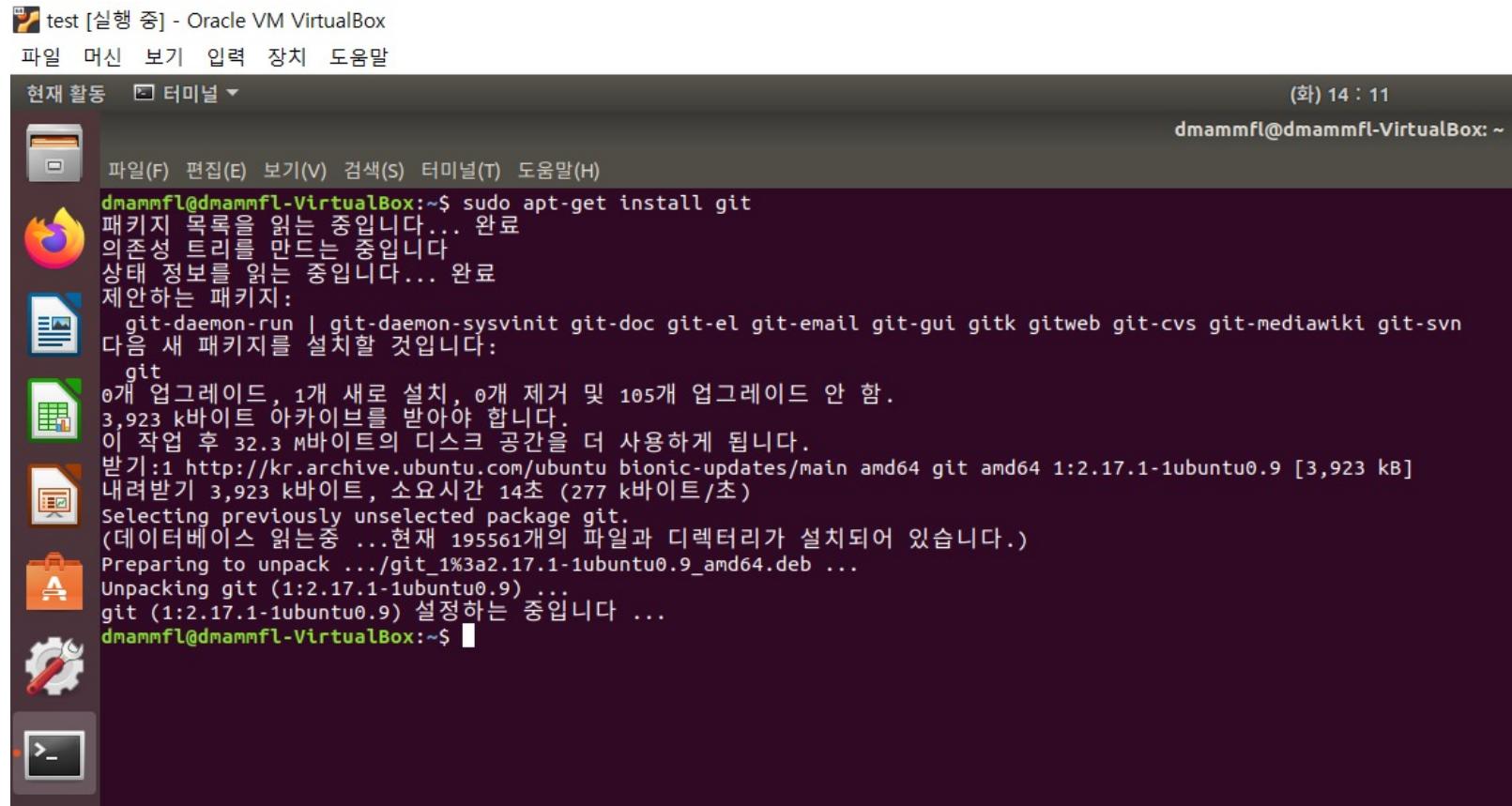
4. Install Gitlab (for windows) : <https://gitforwindows.org>



How to Use Gitlab (4)

4. Install Gitlab (for Linux)

Terminal -> “**sudo apt-get install git**”



The screenshot shows a terminal window titled "test [실행 중] - Oracle VM VirtualBox". The window has a dark theme with white text. At the top, there's a menu bar with Korean labels: 파일 (File), 머신 (Machine), 보기 (View), 입력 (Input), 장치 (Device), and 도움말 (Help). Below the menu is a toolbar with icons for file operations like 파일 (File), 편집 (Edit), 보기 (View), 검색 (Search), 터미널 (Terminal), and 도움말 (Help). The terminal area shows the command "sudo apt-get install git" being run by the user "dmammfl". The output of the command is displayed in Korean, detailing the package selection and download process.

```
test [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
현재 활동 터미널 ▾ (화) 14 : 11
dmammfl@dmammfl-VirtualBox: ~

파일(F) 편집(E) 보기(V) 검색(S) 터미널(T) 도움말(H)
dmammfl@dmammfl-VirtualBox:~$ sudo apt-get install git
패키지 목록을 읽는 중입니다... 완료
의존성 트리를 만드는 중입니다
상태 정보를 읽는 중입니다... 완료
제안하는 패키지:
git-daemon-run | git-daemon-sysvinit git-doc git-el git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn
다음 새 패키지를 설치할 것입니다:
git
0개 업그레이드, 1개 새로 설치, 0개 제거 및 105개 업그레이드 안 함.
3,923 kBайт 아카이브를 받아야 합니다.
이 작업 후 32.3 M바이트의 디스크 공간을 더 사용하게 됩니다.
받기:1 http://kr.archive.ubuntu.com/ubuntu bionic-updates/main amd64 git amd64 1:2.17.1-1ubuntu0.9 [3,923 kB]
내려받기 3,923 kBайт, 소요시간 14초 (277 kBайт/초)
Selecting previously unselected package git.
(데이터베이스 읽는중 ...현재 195561개의 파일과 디렉터리가 설치되어 있습니다.)
Preparing to unpack .../git_1%3a2.17.1-1ubuntu0.9_amd64.deb ...
Unpacking git (1:2.17.1-1ubuntu0.9) ...
git (1:2.17.1-1ubuntu0.9) 설정하는 중입니다 ...
dmammfl@dmammfl-VirtualBox:~$
```

How to Use Gitlab (4)

4. Install Gitlab (for Mac) : <https://git-scm.com/download/mac>

- Similar to the case of Linux, except that we usually leverage **Homebrew** as a package manager for MacOS instead of **apt-get** in Linux.

Download for macOS

There are several options for installing Git on macOS. Note that any non-source distributions are provided by third parties, and may not be up to date with the latest source release.

Homebrew

Install `homebrew` if you don't already have it, then:

```
$ brew install git
```

MacPorts

Install `MacPorts` if you don't already have it, then:

```
$ sudo port install git
```

Xcode

Apple ships a binary package of Git with `Xcode`.

Binary installer

Tim Harper provides an `installer` for Git. The latest version is [2.33.0](#), which was released 6 months ago, on 2021-08-30.

Building from Source

If you prefer to build from source, you can find tarballs [on kernel.org](#). The latest version is [2.35.1](#).

Installing git-gui

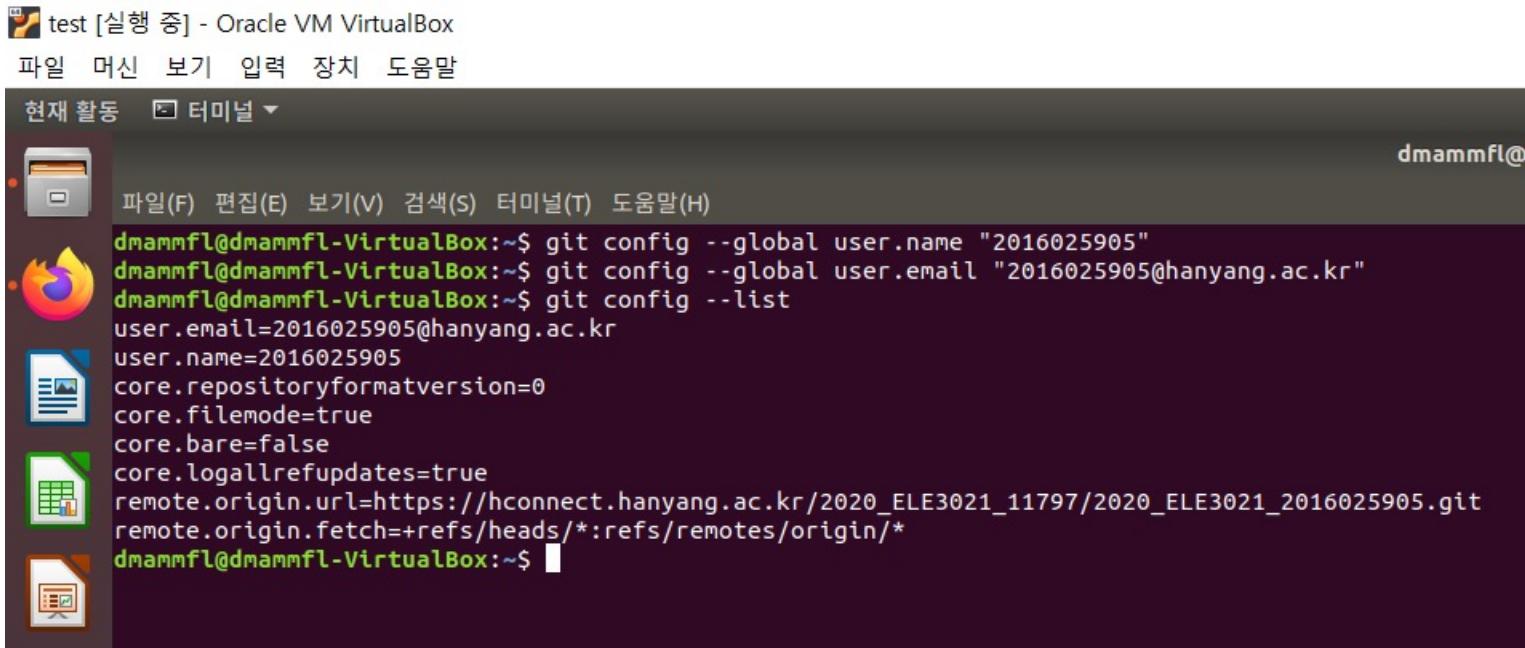
If you would like to install `git-gui` and `gitk`, git's commit GUI and interactive history browser, you can do so using `homebrew`

```
$ brew install git-gui
```

How to Use Gitlab (5)

5. Configuration

- **git config --global user.name “(Your student ID)”**
- **git config --global user.email “(Your student ID)@hanyang.ac.kr”**
 - Default email setting : **(Your student ID)@hanyang.ac.kr**
 - You can check your configuration with “**git config --list**”



```
test [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
현재 활동 터미널 ▾
dmammfl@dmammfl-VirtualBox:~$ git config --global user.name "2016025905"
dmammfl@dmammfl-VirtualBox:~$ git config --global user.email "2016025905@hanyang.ac.kr"
dmammfl@dmammfl-VirtualBox:~$ git config --list
user.email=2016025905@hanyang.ac.kr
user.name=2016025905
core.repositoryformatversion=0
core.filemode=true
core.bare=false
core.logallrefupdates=true
remote.origin.url=https://hconnect.hanyang.ac.kr/2020_ELE3021_11797/2020_ELE3021_2016025905.git
remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
dmammfl@dmammfl-VirtualBox:~$ █
```

How to Use Gitlab (6)

6. Clone your repository to your computer

- You can get your repository address at your project main page.

2022 ITE2037_12938 > OOP-CLASS > Details

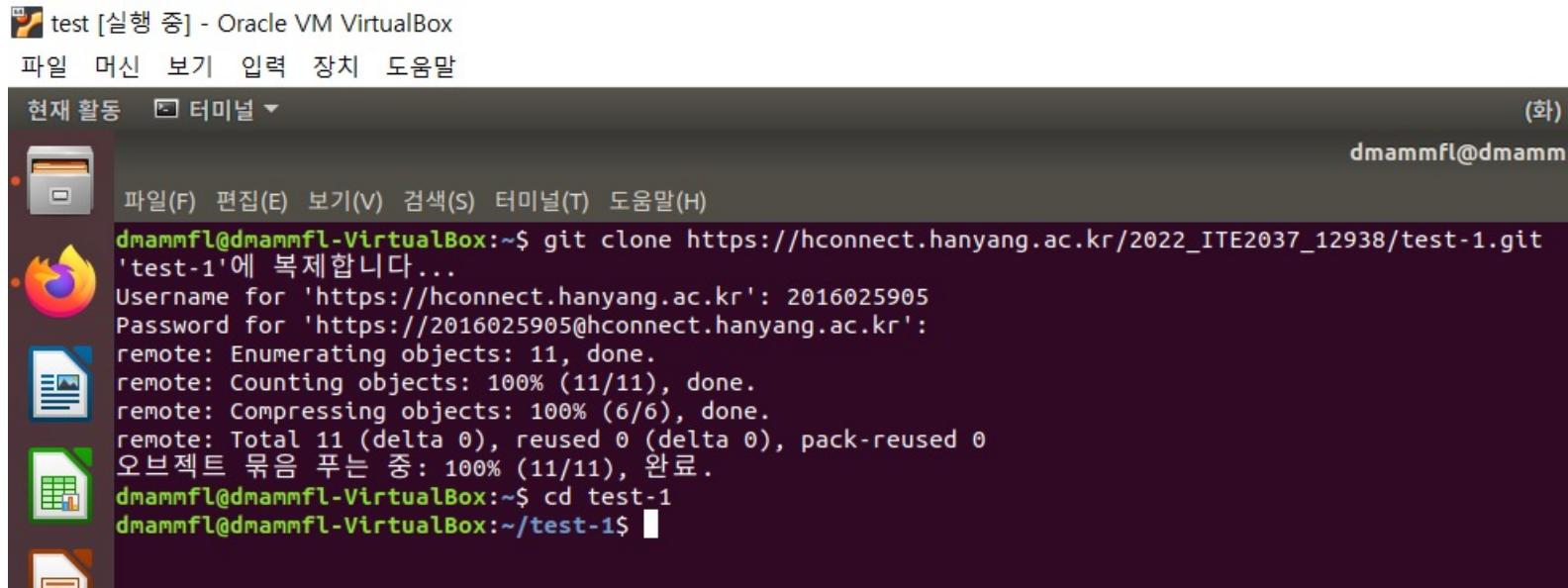
The screenshot shows a GitLab project page for 'OOP-CLASS'. At the top, there's a summary: 4 Commits, 1 Branch, 0 Tags, and 215 KB Files. Below this, there's a commit history entry from 'asdf' (김진현) 3 days ago. On the right side, there's a 'Clone' dropdown menu with two options: 'Clone with SSH' (git@hconnect.hanyang.ac.kr:2022) and 'Clone with HTTPS' (https://hconnect.hanyang.ac.kr/). A red circle and arrow point to the copy icon next to the HTTPS URL.

Click to copy

How to Use Gitlab (6)

6. Clone your repository to your computer

- “git clone (Your repository address)”
- Default Username / Password : Student ID / HY-in password
- After you clone, Make sure if repository(directory) is installed.

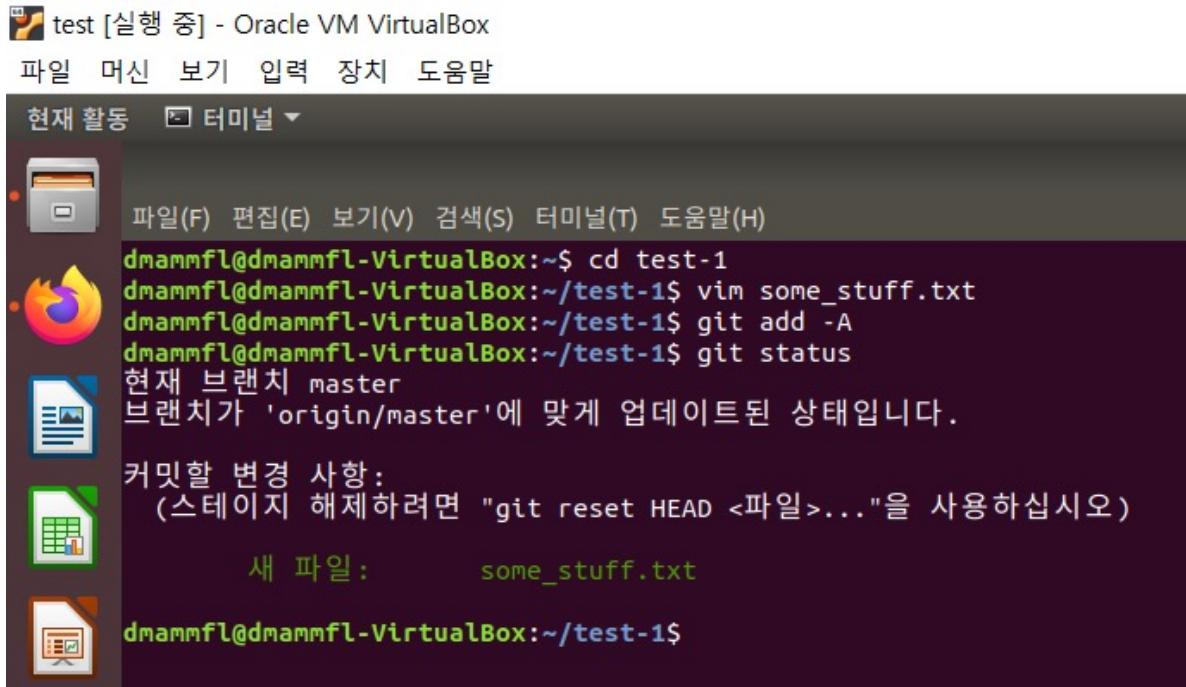


test [실행 중] - Oracle VM VirtualBox
파일 머신 보기 입력 장치 도움말
현재 활동 터미널 ▾ (화)
dmammfl@dmammfl:~\$ git clone https://hconnect.hanyang.ac.kr/2022 ITE2037_12938/test-1.git
'test-1'에 복제합니다...
Username for 'https://hconnect.hanyang.ac.kr': 2016025905
Password for 'https://2016025905@hconnect.hanyang.ac.kr':
remote: Enumerating objects: 11, done.
remote: Counting objects: 100% (11/11), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 11 (delta 0), reused 0 (delta 0), pack-reused 0
오브젝트 뮤음 푸는 중: 100% (11/11), 완료.
dmammfl@dmammfl:~\$ cd test-1
dmammfl@dmammfl:~/test-1\$

How to Use Gitlab (7)

7. Add file

- Access your repository
- Make your own file (Anything is OK)
- “**git add**” to add your file to repository (-A option = add all of files)
- Check with “**git status**” if file is added properly



The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "test [실행 중] - Oracle VM VirtualBox". The terminal content is as follows:

```
dmammfl@dmammfl-VirtualBox:~$ cd test-1
dmammfl@dmammfl-VirtualBox:~/test-1$ vim some_stuff.txt
dmammfl@dmammfl-VirtualBox:~/test-1$ git add -A
dmammfl@dmammfl-VirtualBox:~/test-1$ git status
현재 브랜치 master
브랜치가 'origin/master'에 맞게 업데이트된 상태입니다.

커밋할 변경 사항:
(스테이지 해제하려면 "git reset HEAD <파일>..."을 사용하십시오)

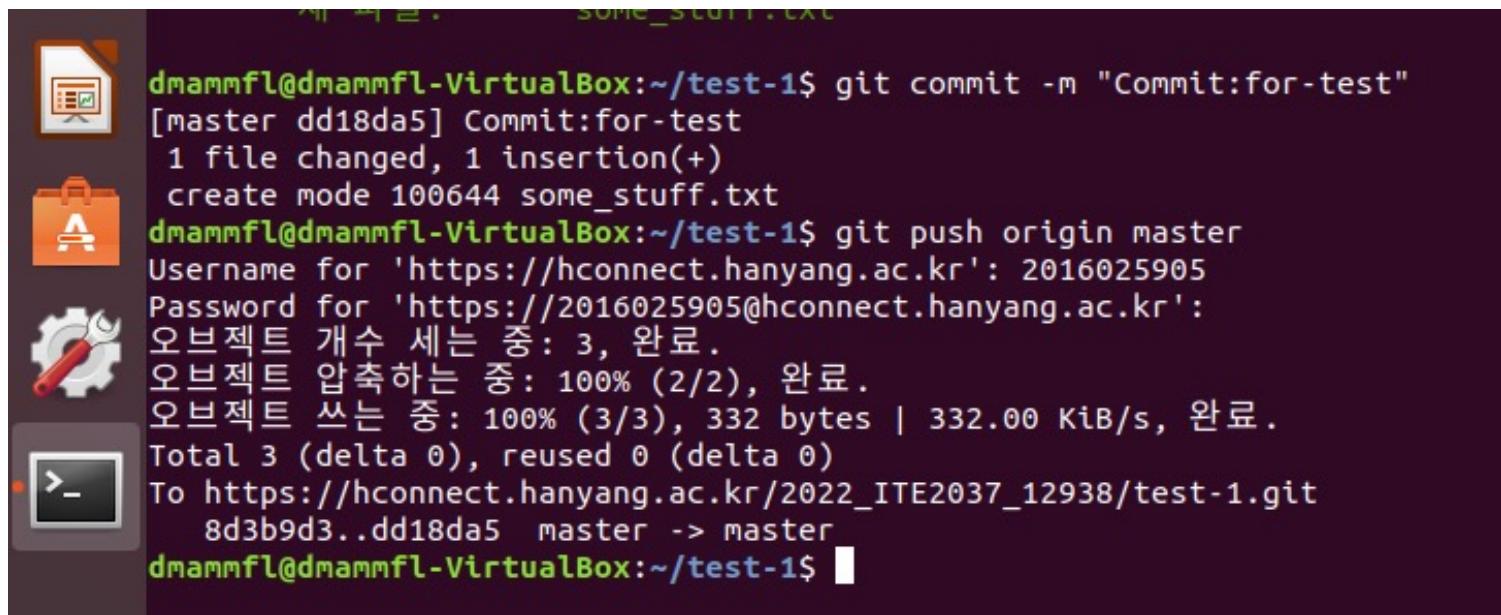
    새 파일:      some_stuff.txt

dmammfl@dmammfl-VirtualBox:~/test-1$
```

How to Use Gitlab (8)

8. Commit your file

- Save your file to local repository : **git commit -m “(commit messages)”**
- Upload your file to remote repository : **git push origin master**
- Check your project page if your file is successfully uploaded.



The screenshot shows a terminal window with a dark background and light-colored text. On the left side of the terminal, there are four icons: a document with a green checkmark, a folder with an orange letter 'A', a gear with a wrench, and a window with a right-pointing arrow. The terminal output is as follows:

```
some_stuff.txt
dmammfl@dmammfl-VirtualBox:~/test-1$ git commit -m "Commit:for-test"
[master dd18da5] Commit:for-test
 1 file changed, 1 insertion(+)
  create mode 100644 some_stuff.txt
dmammfl@dmammfl-VirtualBox:~/test-1$ git push origin master
Username for 'https://hconnect.hanyang.ac.kr': 2016025905
Password for 'https://2016025905@hconnect.hanyang.ac.kr':
오브젝트 개수 세는 중: 3, 완료.
오브젝트 압축하는 중: 100% (2/2), 완료.
오브젝트 쓰는 중: 100% (3/3), 332 bytes | 332.00 KiB/s, 완료.
Total 3 (delta 0), reused 0 (delta 0)
To https://hconnect.hanyang.ac.kr/2022 ITE2037_12938/test-1.git
  8d3b9d3..dd18da5  master -> master
dmammfl@dmammfl-VirtualBox:~/test-1$
```

How to Use Gitlab (9)

9. Done!

- File is successfully added to your remote repository.
- You can check your commit log; add, delete, edit etc...

2022 ITE2037_12938 > OOP-CLASS > Repository

The screenshot shows a GitLab repository interface. At the top, there are dropdown menus for 'master' and 'test-1 /' with a '+' button, and navigation links for 'History', 'Find file', 'Web IDE', and 'Clone'. Below this is a commit log table:

Name	Last commit	Last update
README.md	Add README.md	6 days ago
some_stuff.txt	Commit:for-test	6 minutes ago
test.txt	asdf	3 days ago

Below the commit log is a detailed view of the 'README.md' file:

README.md
README.md

Time for Practice

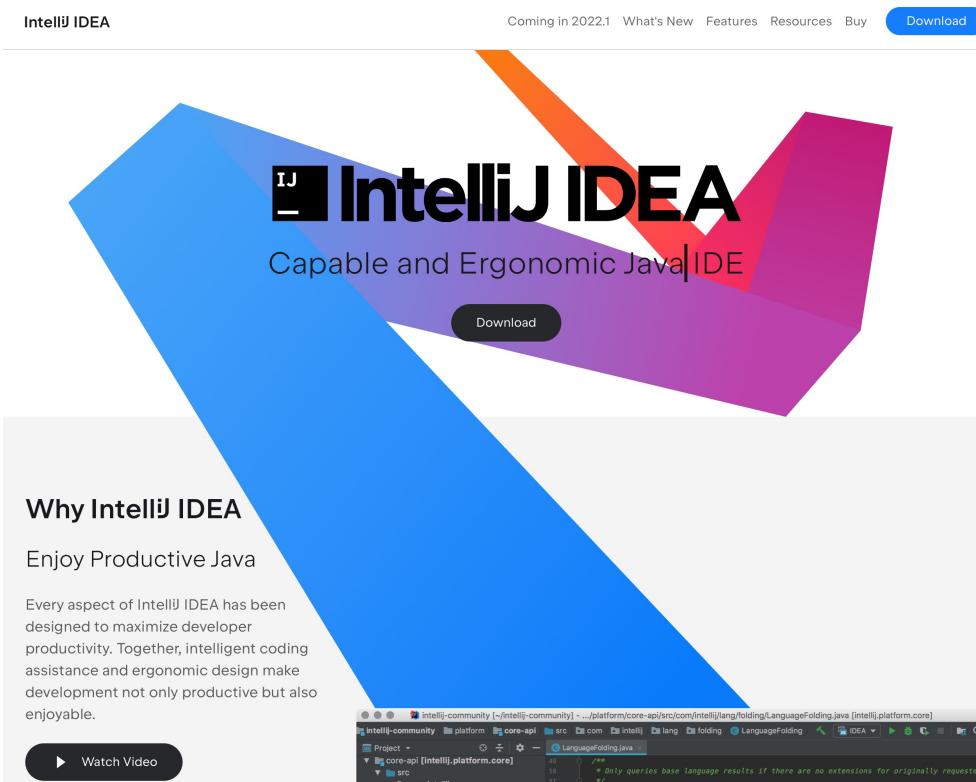
Get it started, and ask TAs if you are in a trouble.

Setting an environment for your exercise

How to install and utilize IntelliJ IDEA

IntelliJ IDEA

- IntelliJ IDEA is one of the representative Integrated Development Environments (IDE) designed for Java.
 - We will use this framework in exercise sessions.
- Just type “intellij” on Google to install IntelliJ IDEA.
 - The community version is enough for our purpose.



Installation Guide for Windows

<https://www.jetbrains.com/ko-kr/idea/download/#section=windows>

다운로드 IntelliJ IDEA

Windows

macOS

Linux

Ultimate

웹 및 엔터프라이즈 개발용

다운로드

.exe

30일 무료 평가판

Community

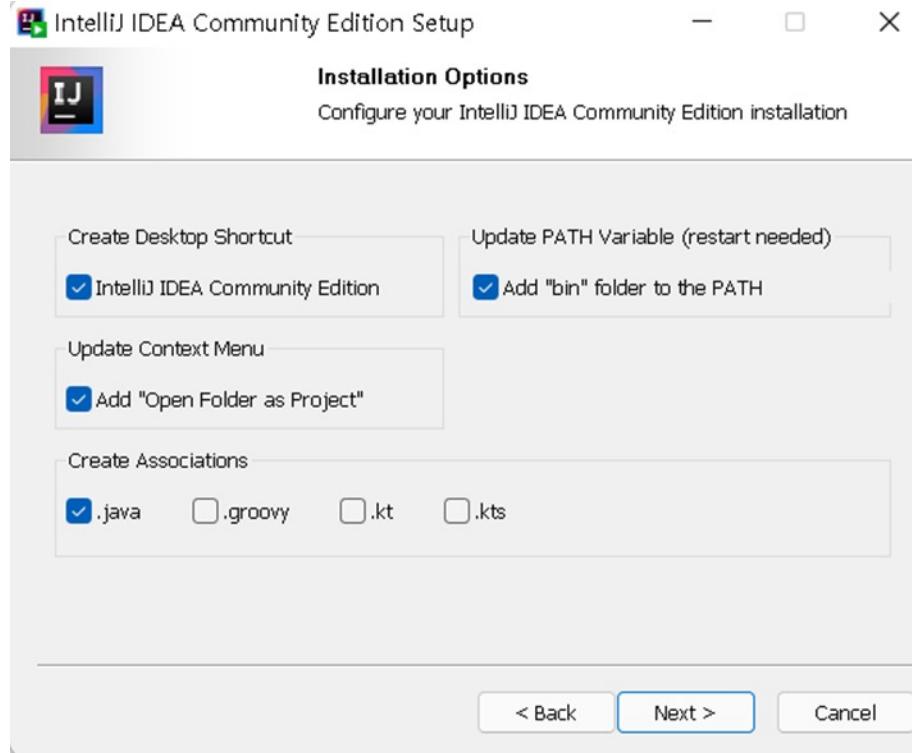
JVM 및 Android 개발용

다운로드

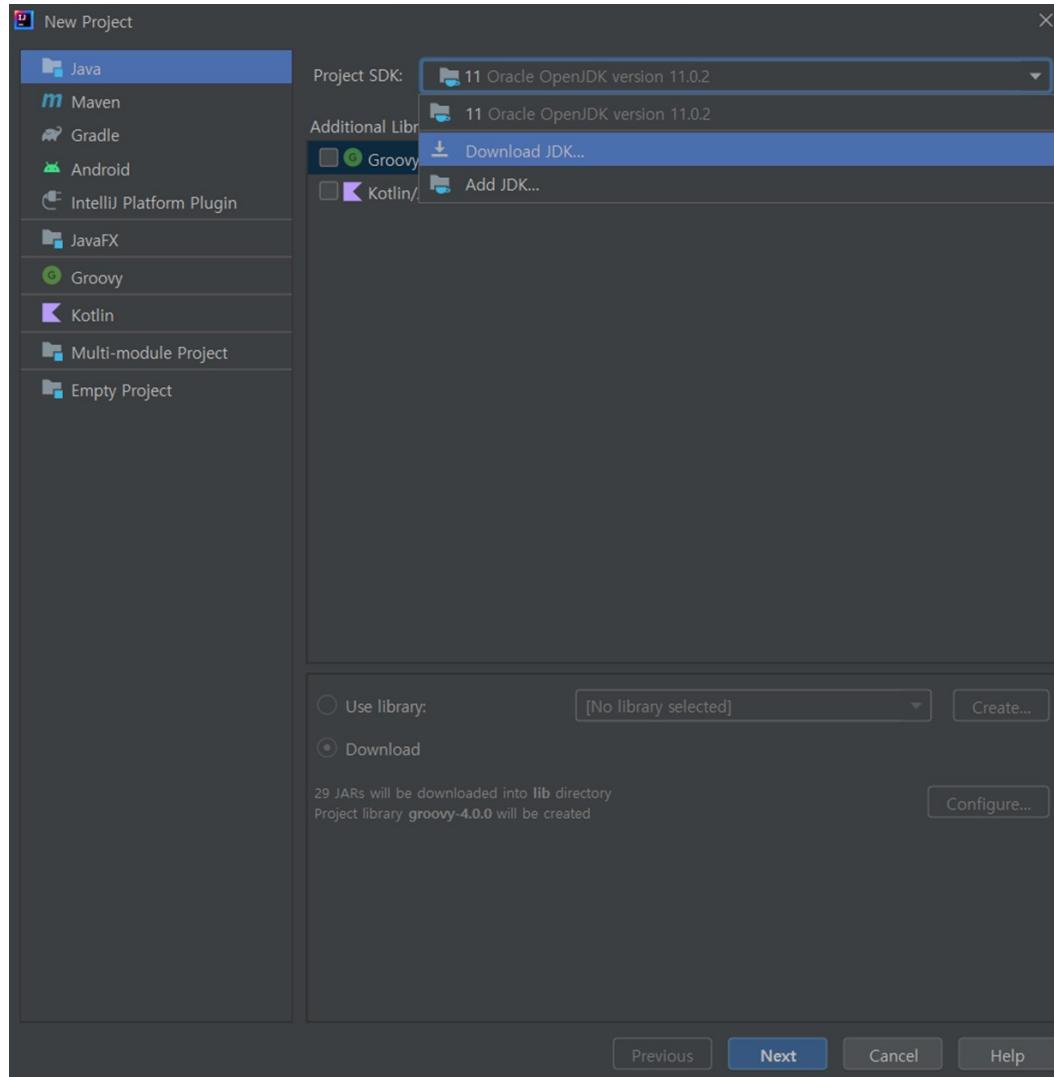
.exe

무료, 오픈 소스로 빌드됨

Installation Guide for Windows



Installation Guide for Windows



Installation Guide for Linux

```
(base) yuntaejun@yuntaejun-VivoBook-ASUSLaptop-X580GD-N580GD:~$ javac -version
명령어 'javac' 을(를) 찾을 수 없습니다. 그러나 다음을 통해 설치할 수 있습니다:

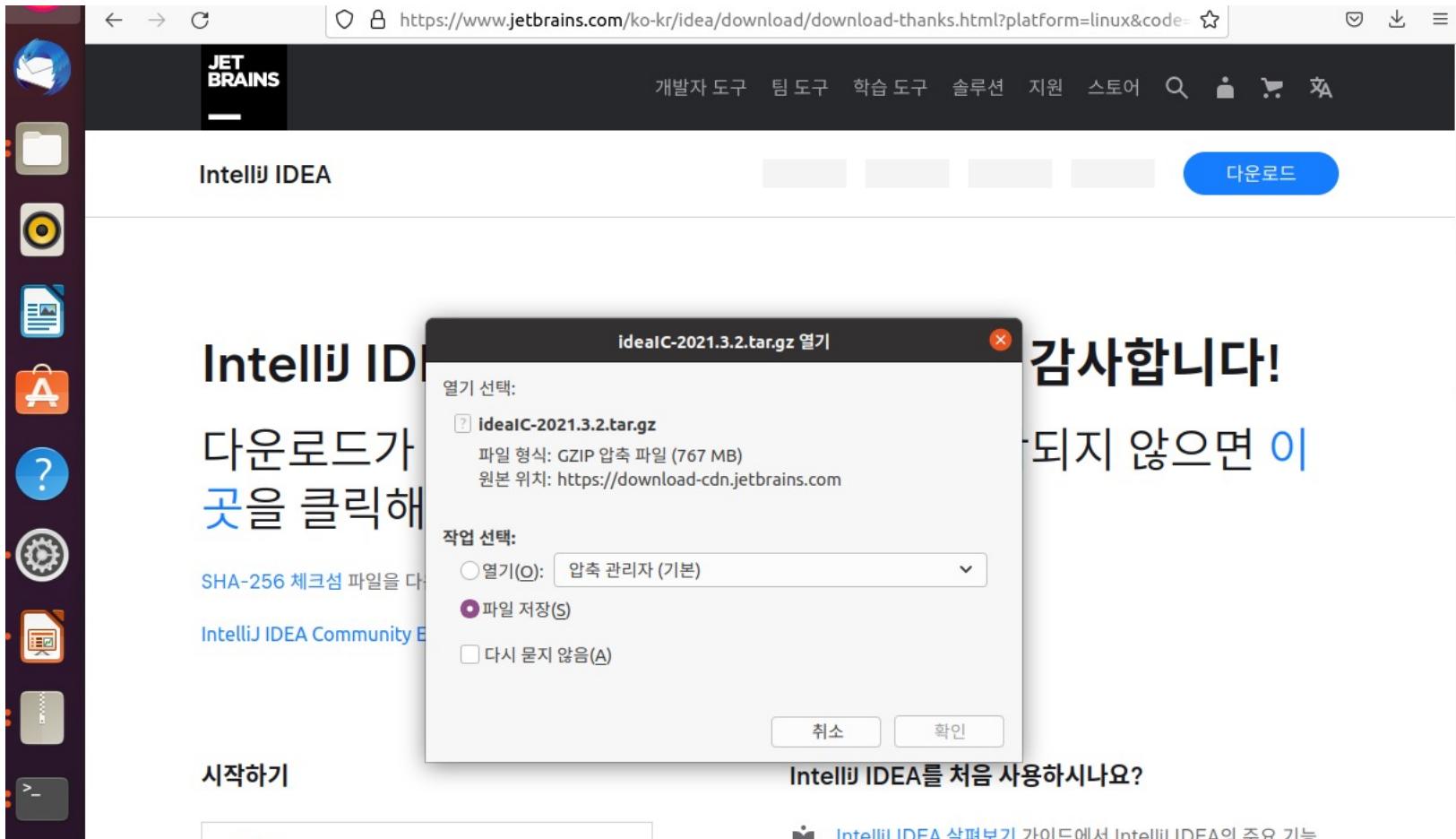
sudo apt install default-jdk      # version 2:1.11-72, or
sudo apt install openjdk-11-jdk-headless # version 11.0.11+9-0ubuntu2~20.04
sudo apt install ecj                # version 3.16.0-1
sudo apt install openjdk-16-jdk-headless # version 16.0.1+9-1~20.04
sudo apt install openjdk-17-jdk-headless # version 17.0.1+12-1~20.04
sudo apt install openjdk-8-jdk-headless # version 8u292-b10-0ubuntu1~20.04
sudo apt install openjdk-13-jdk-headless # version 13.0.7+5-0ubuntu1~20.04
```

Install JDK

```
:~$ sudo apt install openjdk-11-jdk
```

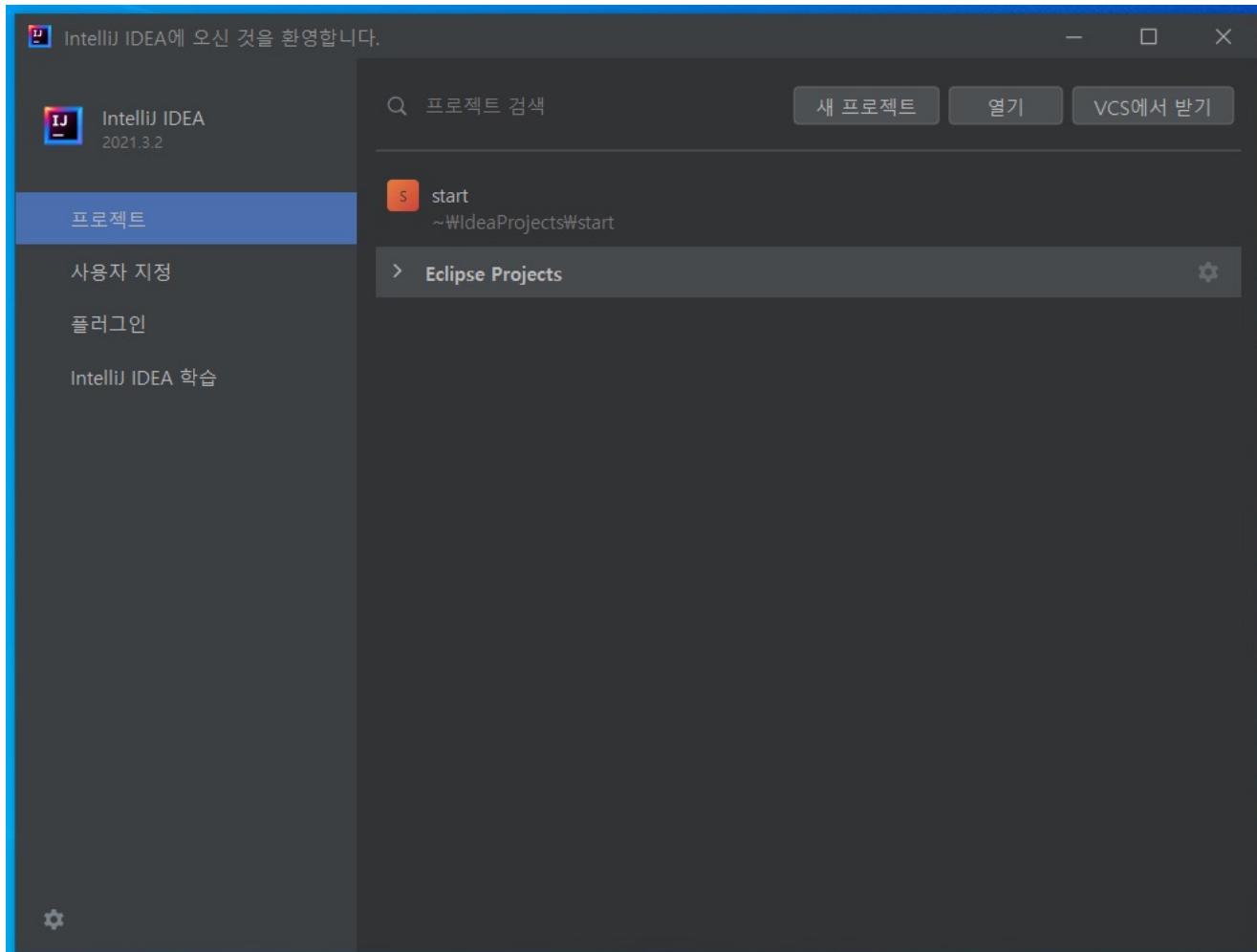
Installation Guide for Linux

<https://www.jetbrains.com/ko-kr/idea/download/#section=linux>



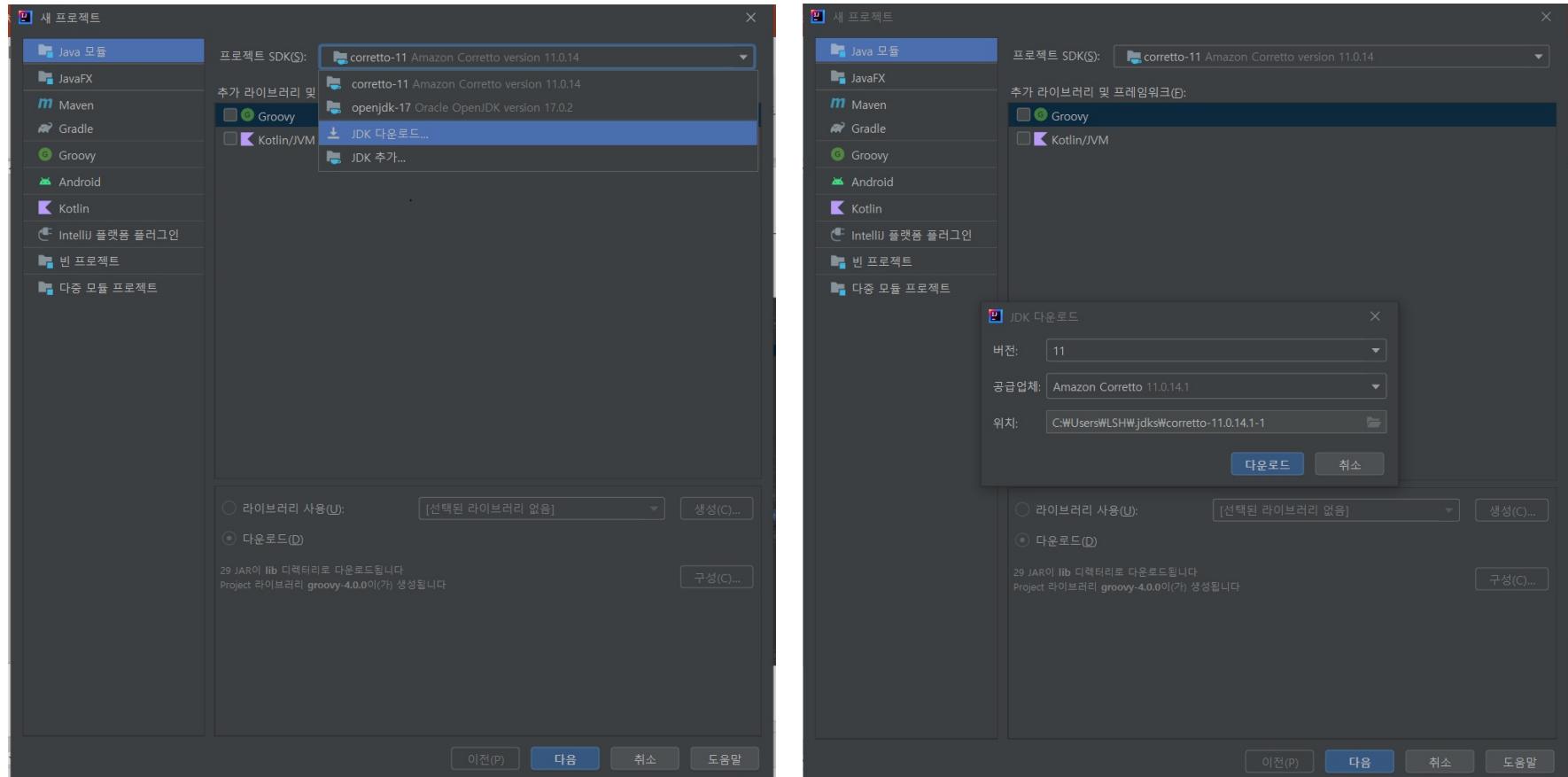
Setting an Exercise Environment

- New project



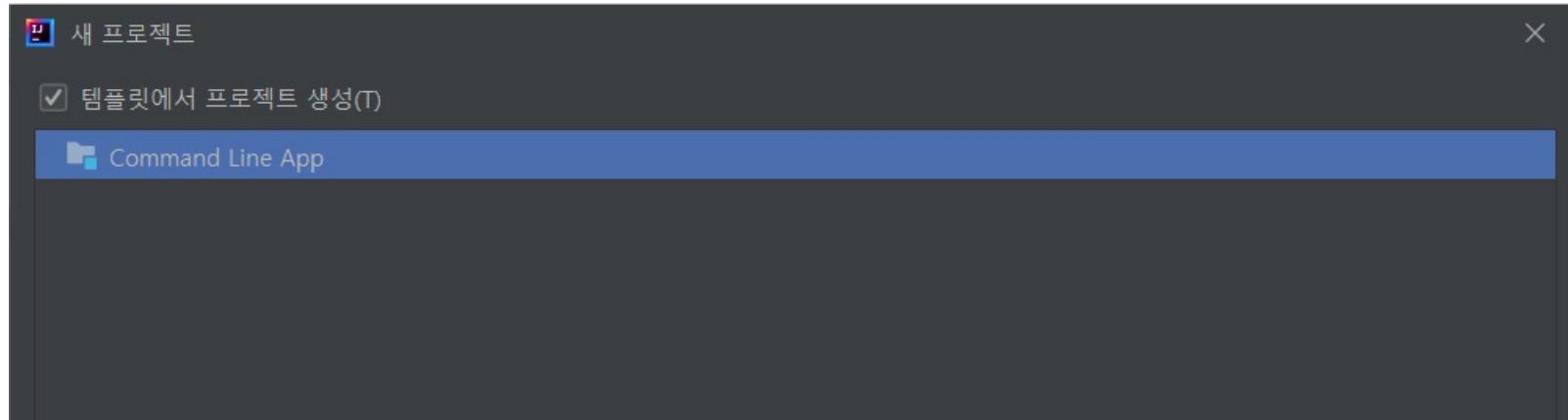
Setting an Exercise Environment

- Download jdk version 11 (anything is fine)



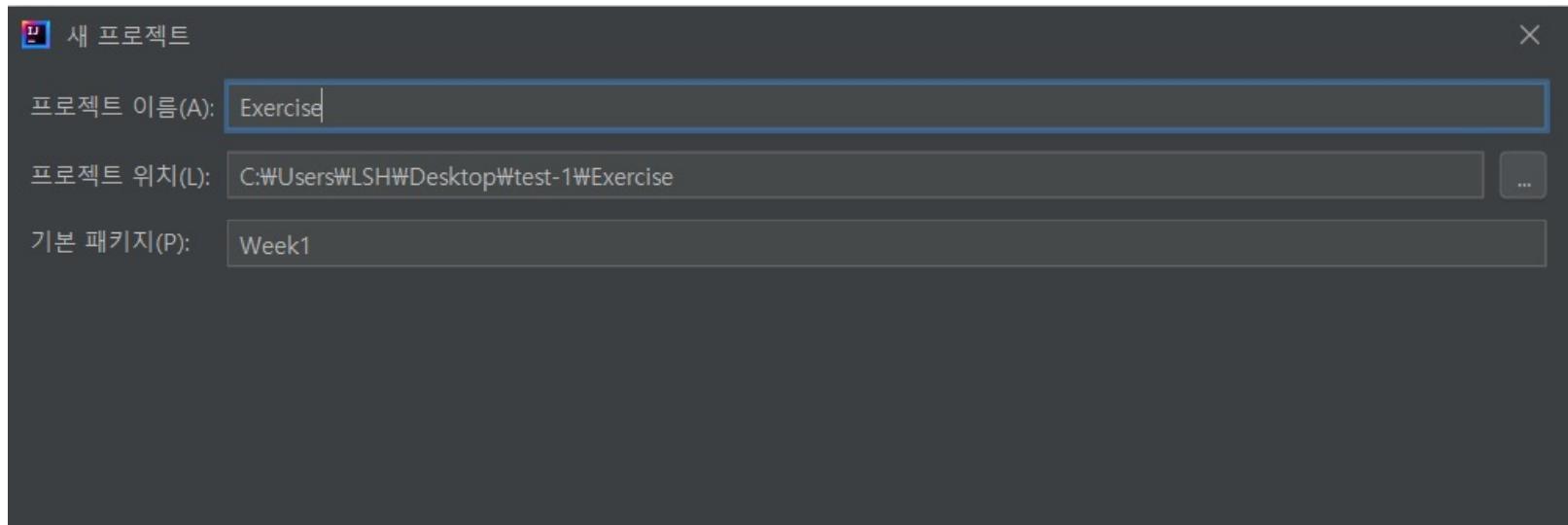
Setting an Exercise Environment

- Check “Create project from template”
 - Then you can start with main() method.



Setting an Exercise Environment

- Create project named “Exercise”
 - Set Project location : (Your repository)\Exercise
 - Set Base package : Week1



Setting an Exercise Environment

- Now you can start!

The screenshot shows a Java project named 'Exercise' with a package 'Week1' containing a class 'Main'. The code editor displays the following Java code:

```
package Week1;
public class Main {
    public static void main(String[] args) {
        // write your code here
    }
}
```

The IDE interface includes a navigation bar with Korean labels like 파일(F), 폴더(E), 보기(V), 탐색(N), 코드(C), 리팩터링(R), 빙드(B), 실행(U), 도구(I), Git(G), 창(W), 도움말(H), and Exercise - Main.java. The left sidebar shows the project structure with 'Exercise' selected, and the bottom status bar shows Git information and a timer.

Upload All of Your Practices/Assignments on Gitlab

- You must upload every work you do in exercise sessions to gitlab.
 - Exercise participation(10%) will be evaluated by your gitlab commit log.
 - Create package “**WeekN**” for every Nth week’s exercise session.
 - You can get out of the classroom as soon as successfully upload your codes to Gitlab.
 - If you can’t finish the practice in our class time, submit your practice at your home.
 - There would be no penalty once you succeed in submitting your work on the day (until 23:59).
 - **But if you miss the day, that week’s participation score will be 0.**

Time for Practice

Get it started, and ask TAs if you are in a trouble.

Getting Started

Chapter 1

Print Method in Other languages

C, C++

```
printf("hello world!");
printf("%d is ...", num);
...
...
```

Python

```
print("hello world!")
print("%d is ..." % num)
...
...
```

Print Method in Java

```
System.out.print ("Hello world!");
```

Class object
: Contains "print" Method

Argument

"print" Method

Print Method in Java

System.out

`print(String s)`

- Print String s to console.

`println(String s)`

- Print String s to console, with `\n`.

`printf(String format, Object objs)`

- Print formatted string to console.
- Ex) `printf("%d is", someNum);`

Print Method in Java

```
package com.company;

public class Main {
    public static void main(String[] args) {
        System.out.print("hello world!");
    }
}
```

The screenshot shows a Java code editor with the following content:

```
package com.company;

public class Main {
    public static void main(String[] args) {
        System.out.print("hello world!");
    }
}
```

Below the code editor is a terminal window titled "Main". The terminal shows the command:

```
C:\Users\LSH\.jdks\openjdk-17.0.2\bin\java.exe "-javaagent:C:\Program F
```

and the output:

```
hello world!
```

At the bottom of the terminal window, it says:

```
종료 코드 0(으)로 완료된 프로세스
```

Primitive Types in Java

Type Name	Kind of Value	Memory Used	Size Range
boolean	true or false	1 byte	Not applicable
char	Single character (Unicode)	2 bytes	Common Unicode characters
byte	Integer	1 byte	-128 to 127
short	Integer	2 bytes	-32768 to 32767
int	Integer	4 bytes	-2147483648 to 2147483647
long	Integer	8 bytes	-9223372036854775808 to 9223372036854775807
float	Floating-point number	4 bytes	$\pm 3.40282347 \times 10^{+38}$ to $\pm 1.40239846 \times 10^{-45}$
double	Floating-point number	8 bytes	$\pm 1.76769313486231570 \times 10^{+308}$ to $\pm 4.94065645841246544 \times 10^{-324}$

Variable Declaration

```
public static void main(String[] args) {  
    //integer(4byte = 32bit) : -2^31 ~ 2^31-1  
    int myInt = 1234567890;  
    //short(2byte = 16bit) : -2^15 ~ 2^15-1  
    short myShort = 12345;  
    //long(8byte = 64bit) : -2^63 ~ 2^63-1  
    long myLong = 1234567890123456789L;  
    //double(8byte = 64bit) : -10^(-324) ~ 10^308  
    double myDouble = 1234567890123456.1234567890123456D;  
    //float(4byte = 32bit) : -10^(-45) ~ 10^38  
    float myFloat = 123456789.123456789F;  
    //byte(8bit) : -2^7 ~ 2^7-1  
    byte myByte = 123;  
    //char : One character  
    char myChar = 'a';  
    //bool : Boolean data(true or false)  
    boolean myBool = true;
```

Long, Float datatype
can be represented
with “L” and “F”
symbols.

Arithmetic Operators

```
public static void main(String[] args) {  
    int myInt1 = 10, myInt2 = 12;  
  
    int resultInt1 = myInt1 + myInt2;      //22  
    int resultInt2 = myInt1 * 4;           //40  
    int resultInt4 = myInt1 / 3;          //3 (not 3.333...)  
  
    double myDouble1 = 1.5;  
    double resultDouble1 = myDouble1 + myInt1; //11.5, type:double(right-most type)  
    double resultDouble2 = myDouble1 * myInt2; //18.0 (not 18), type:double(right-most type)  
    double resultDouble3 = myInt1 / 3;        //3.0 (not 3.33...), type:double  
    double resultDouble4 = (double) myInt1 / 3;//3.333..., type:double  
  
    // Check the result with System.out.print  
    System.out.print(resultDouble3);  
}
```

※ Note that “myInt1 / 3” can make unexpected data loss,
because of floating-point.

Arithmetic Operators

```
public static void main(String[] args) {  
    int myInt1 = 10;  
  
    myInt1 += 10;      // 20 (is equivalent to myInt1 = myInt1 + 10)  
    myInt1 -= 10;      // 10 (is equivalent to myInt1 = myInt1 - 10)  
    myInt1 *= 4;       // 40 (is equivalent to myInt1 = myInt1 * 4)  
    myInt1 /= 4;       // 10 (is equivalent to myInt1 = myInt1 / 4)  
  
    myInt1++;         // 11 (is equivalent to myInt1 = myInt1 + 1)  
    myInt1--;         // 10 (is equivalent to myInt1 = myInt1 - 1)  
  
    int resultInt1 = 10 + (myInt1++);      // 10 + 10 = 20 -> myInt1 = 11  
    int resultInt2 = 10 + (++myInt1);      // myInt1 = 12 -> 10 + 12 = 22  
  
    // Check the result with System.out.print  
    System.out.print(resultInt2);  
}
```

Class String

```
String str = "hello ";           // Simple String
String str2 = str + "OOP class"; // Concatenate to String
String str3 = str + 12345;       // Concatenate to other datatype

// Check the result with System.out.print
System.out.println(str3);
```

```
}
```

```
}
```

```
|
```

```
Main ×
```

```
C:\Users\LSH\.jdks\openjdk-17.0.2\bin\java.exe "-javaagent:C:\Program Files\Jet
hello 12345
```

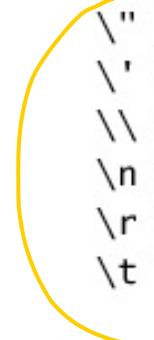
종료 코드 0(으)로 완료된 프로세스

String Methods

Method	Returns	Example
length	Length of String (int)	“hello world!”.length() = 12
equals	Whether two strings are equal (boolean)	“hello”.equals(“hi”) = false
toUpperCase	String which is all converted to Uppercase letter	“hello”.toUpperCase() = “HELLO”
trim	String with all of whitespace eliminated	“hello world\n”.trim() = “elloworld”
charAt	Character at the position	“hello”.charAt(1) = ‘e’
substring	Sliced String of input String	“hello world”.substring(5) = “ world” “hello world”.substring(2, 7) = “llo w”
indexOf	Index(position) of string’s first occurrence	“hi hello hi”.indexOf(“hi”) = 0 “hi hello hi”.indexOf(“world”) = -1

Escape Sequences

Display 1.6 Escape Sequences



```
\" Double quote.  
\' Single quote.  
\\" Backslash.  
\n New line. Go to the beginning of the next line.  
\r Carriage return. Go to the beginning of the current line.  
\t Tab. White space up to the next tab stop.
```

Escape Sequences : \t

The screenshot shows a Java code editor with a dark theme. A class named 'Main' is displayed. The code uses the '\t' escape sequence to print tab-separated values:

```
// \t : Whitespace up to the next tab stop
System.out.println("1\t2\t3\t4");
System.out.println("11\t22\t33\t44");
```

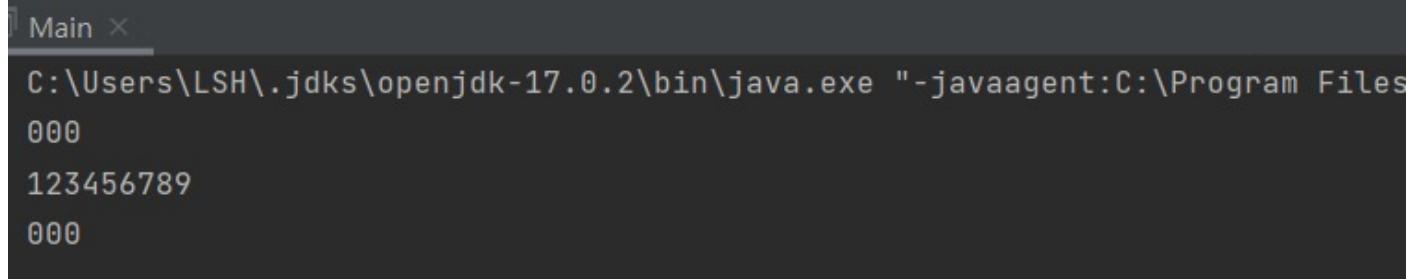
The output window shows the following results:

```
Main ×
C:\Users\LSH\.jdks\openjdk-17.0.2\bin\java.exe "-java
1    2    3    4
11   22   33   44

종료 코드 0(으)로 완료된 프로세스
```

The output shows two lines of text. The first line contains four numbers separated by tabs, resulting in four distinct columns. The second line also contains four numbers separated by tabs.

Escape Sequences : \r

```
// \r : Carriage return, Go to the beginning of the current line.  
System.out.println("123456789\r000");  
System.out.println("123456789\r\n000");  
}  
}  
  
  
Main ×  
C:\Users\LSH\.jdks\openjdk-17.0.2\bin\java.exe "-javaagent:C:\Program Files  
000  
123456789  
000
```

1st print : Moving cursor to forward and typing in current line, “123456789” is eliminated.

2nd print : Moving cursor to forward and typing in next line, “123456789” is preserved.

Escape Sequences

- How can I print “Escape Sequence “\n” means New line”?

The screenshot shows a Java code editor with the following code:

```
// It seems something wrong...
System.out.println("Escape sequences \"\n\" means New line");
}
```

A yellow circle highlights the escape sequence "\n". Below the code editor, there is a status bar with the text "현재 파일 9 프로젝트 오류" and a list of errors:

- ① ';' 또는 ')' 필요 :30
- ② 잘못된 문자: ¶ (U+005C) :30
- ③ ';' 또는 ')' 필요 :30
- ④ 심볼 'n'을(를) 해결할 수 없습니다 :30
- ⑤ ';' 또는 ')' 필요 :30

Escape Sequences

- To typing Escape sequences, Just add additional backslash

```
// Solved!
System.out.println("Escape sequences \"\\n\" means New line");
}

Main ×
C:\Users\LSH\.jdks\openjdk-17.0.2\bin\java.exe "-javaagent:C:\Program File
Escape sequences "\n" means New line

종료 코드 0(으)로 완료된 프로세스
```

Today's Practice

- Print your Name (in English), Student ID (학번)

- Assign “**String name**”, “**double studentID**” variable.
- Print your name and student number with the format below.

My name is “HONG GIL DONG”
and my student ID is 1234567890.

- Use “**toUpperCase**” method to print your name.
- There should be **no floating point** (e.g., 123456789.0) to your print result.
- Your print should be performed by **a single line** of the “System.out.println” method.
- When you finish your practice, call TA to check whether your answer is correct or not.
- If your answer is correct, don't forget to upload your job to Gitlab!

Time for Practice

Get it started, and ask TAs if you are in a trouble.