Embedded System Design
Practice 1

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Hanyang University

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1. Lecture introduction
2. Install VMware and Linux
3. How to use git

Lecture introduction

Introduction

- **Embedded System Design**

- **Practice Location: IT/BT 609@every friday**
- **TA**
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  - SeokHyun Hong
    - Email: ghazard8572@hanyang.ac.kr

Grading

- Midtern : 20%
- Final : 20%
- Lab assignment : 20%
- Term Project : 30%
- Attendance : 10%

Schedule (1/2)

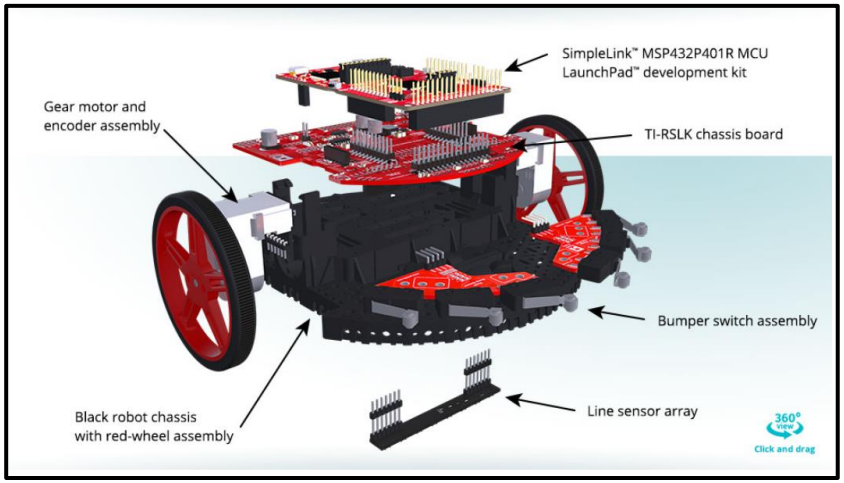
Week	Date	Lecture
1	3/4	Introduction
2	3/11	SysLab - Orientation
3	3/18	SysLab - Implement Startup Code
4	3/25	SysLab - Basic UART & Timer Setting
5	4/1	SysLab - Implement Hardware Interrupt
6	4/8	SysLab - Implement Software Interrupt
7	4/15	Midterm Exan (No Practice Class)
8	4/22	SysLab - Implement Timer & GPIO

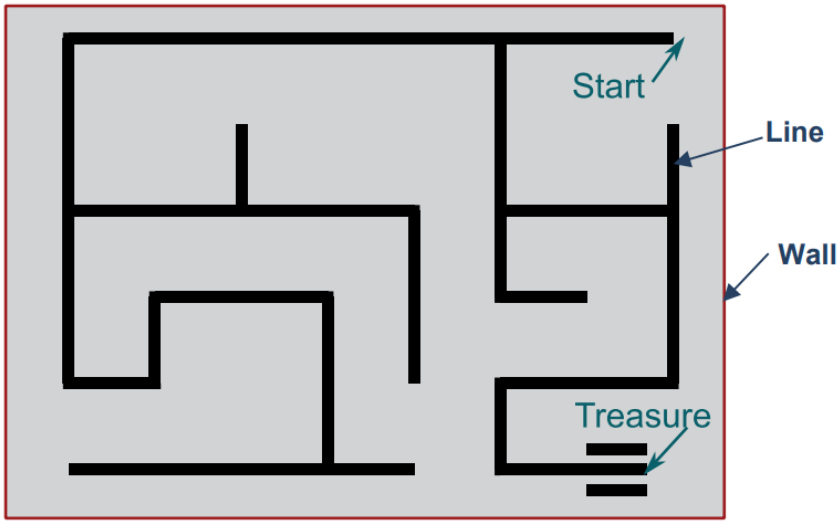
Schedule (2/2)

Week	Date	Lecture
9	4/29	SysLab - Q&A
10	5/6	QEMU - Orientation
11	5/13	QEMU - Stack & BSS
12	5/20	QEMU - Bit Banding & Count Down
13	5/27	Final Exam (No Practice Class)
14	6/3	Term Project
15	6/10	Term Project
16	6/17	Term Project (Optional)

Term Project

We will develop Line Tracer





Term Project

We will Implement

- **Line Tracing Algorithm**
- **Motor & Sensor Control**

with C & Assembly

Evaluate by how quickly you reached the finish line

- **2 chances**
- **Score by time average of 2 chances**

How to make a team

- 2 people in one group
- Email to us with your team information

  Otherwise, random teammate

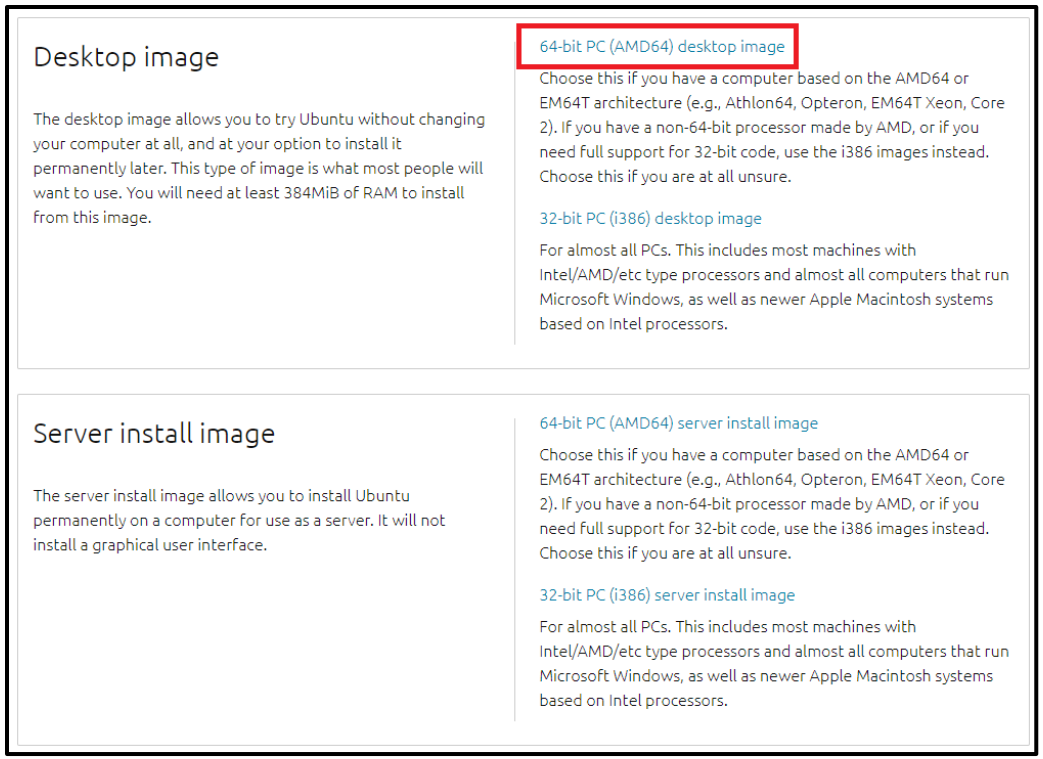
  [Email Format]
  Title : Embedded_TeamMate
  Contents : Your Name & Your Student ID
  Teammate Name & Teammate Student ID

until next practice class (3/11)

Install VMware and Linux

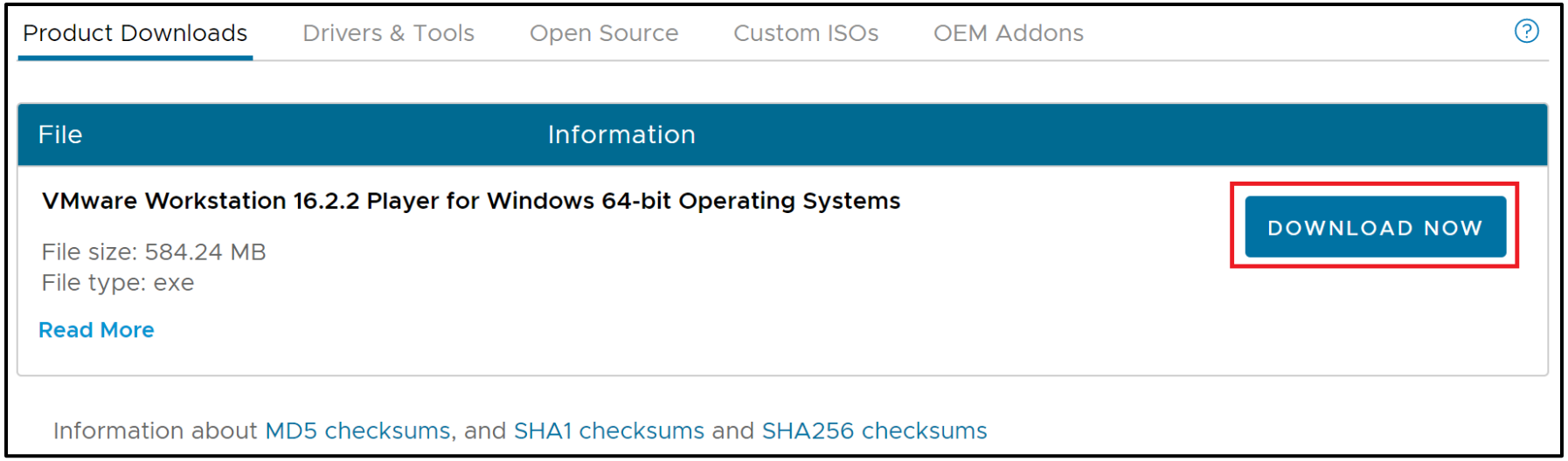
Install Linux

- Ubuntu 14.04.6 LTS
- Website (Link)

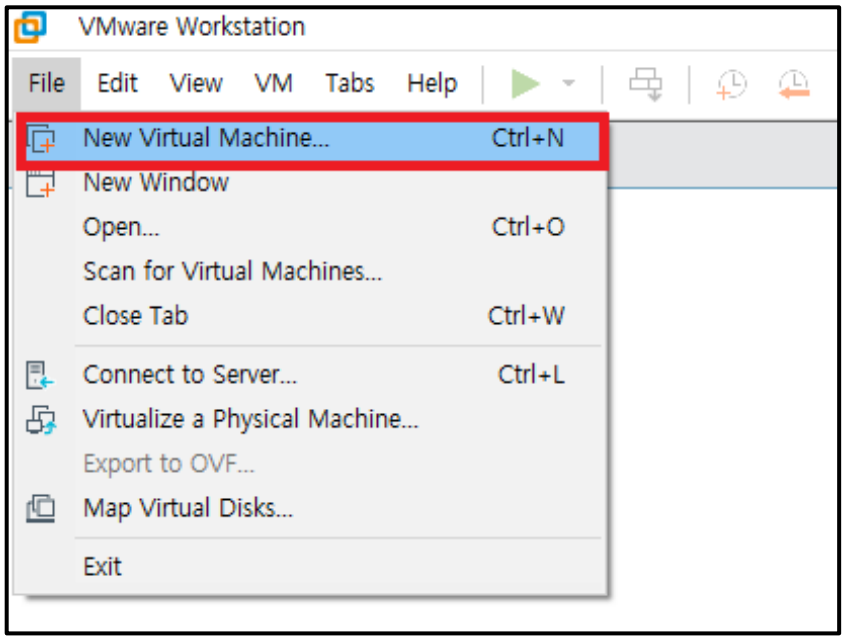


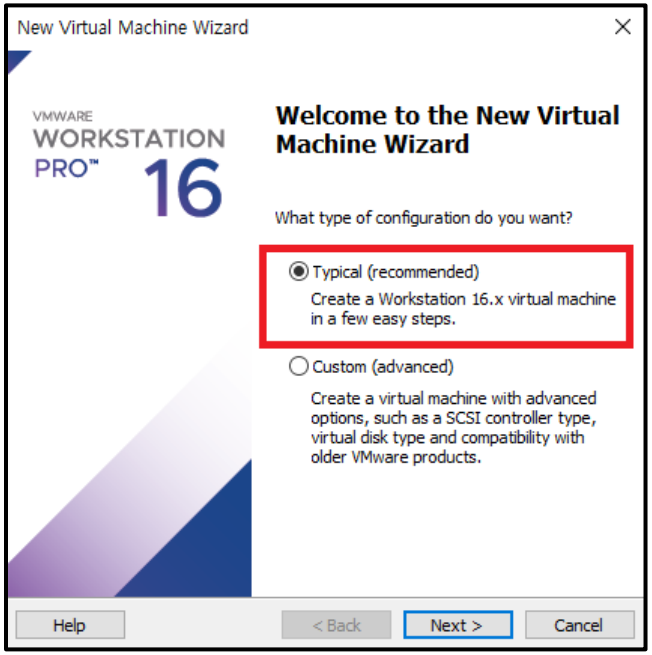
VMware

- X86 virtualization software to virtualize guest OS
- Website (Link)

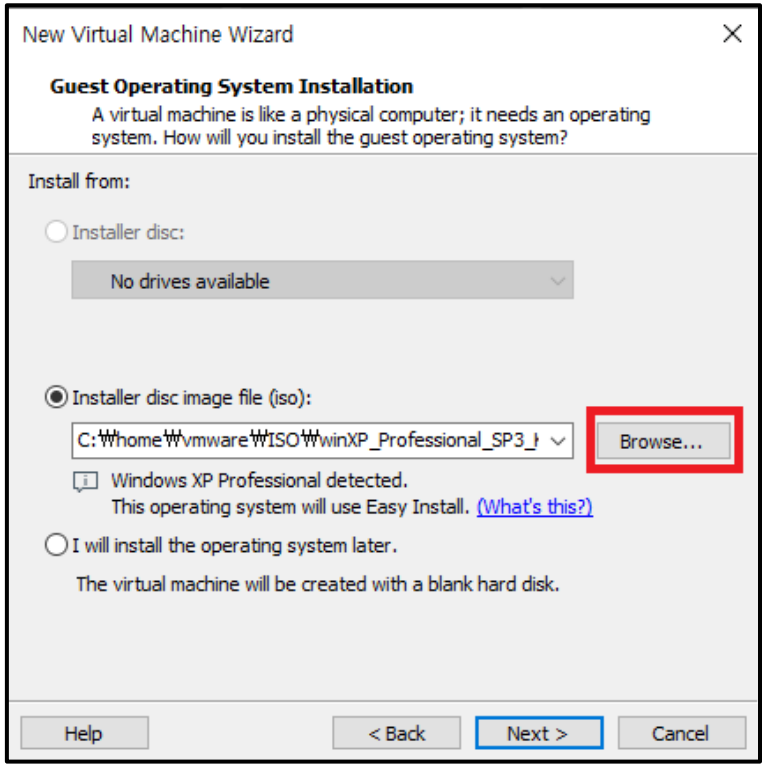


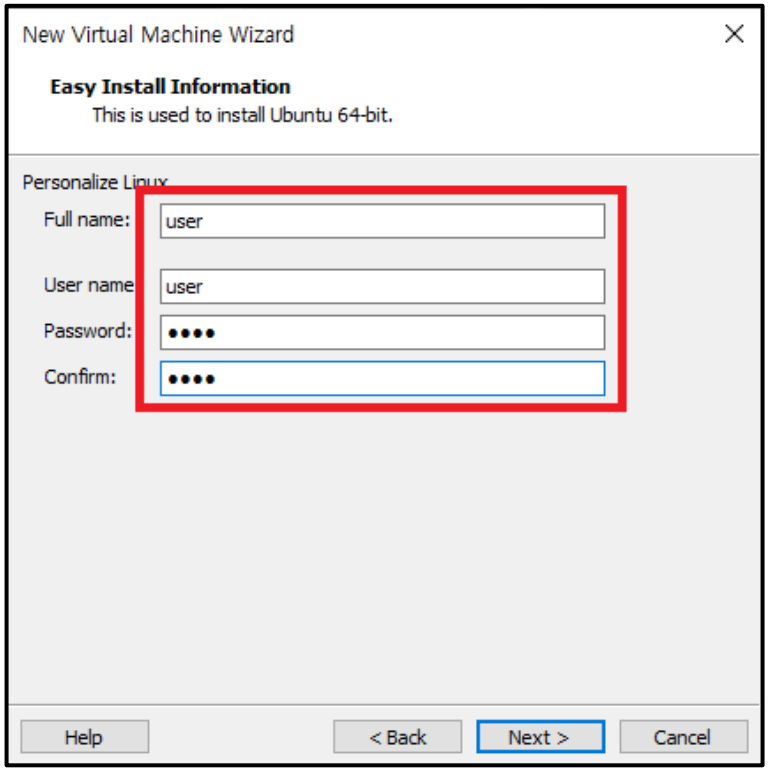
Create a virtual machine



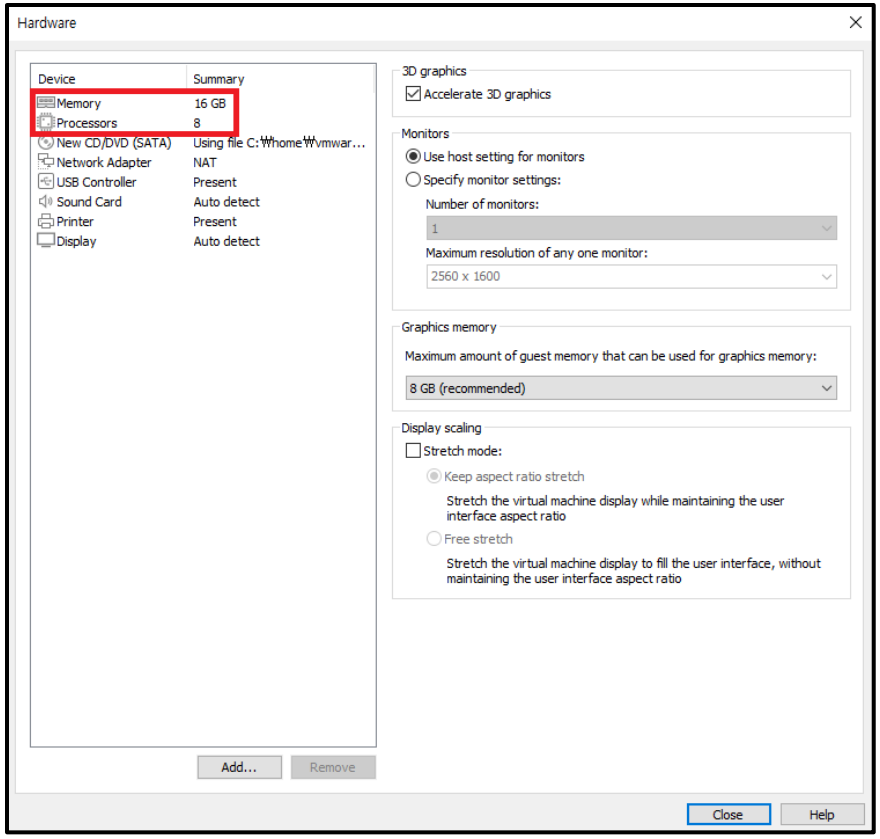


Create a virtual machine





Create a virtual machine



Create a virtual machine

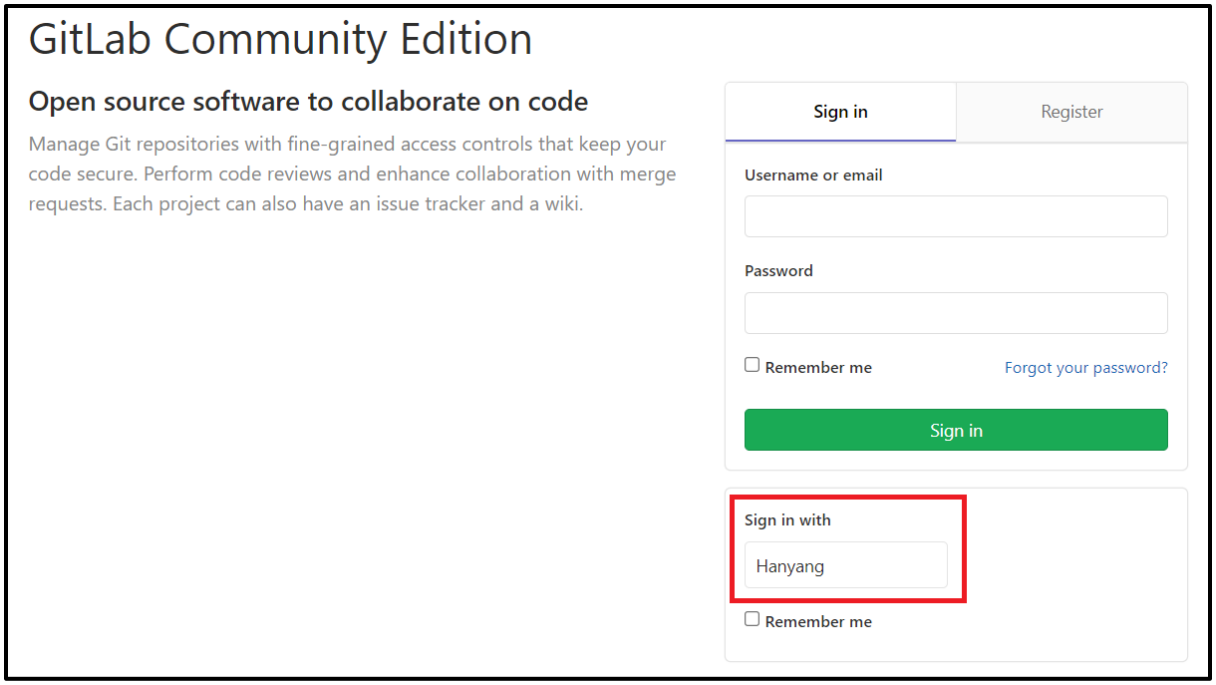
For more information, refer to the following link

https://lonaru-burnout.tistory.com/2

GitLab for students

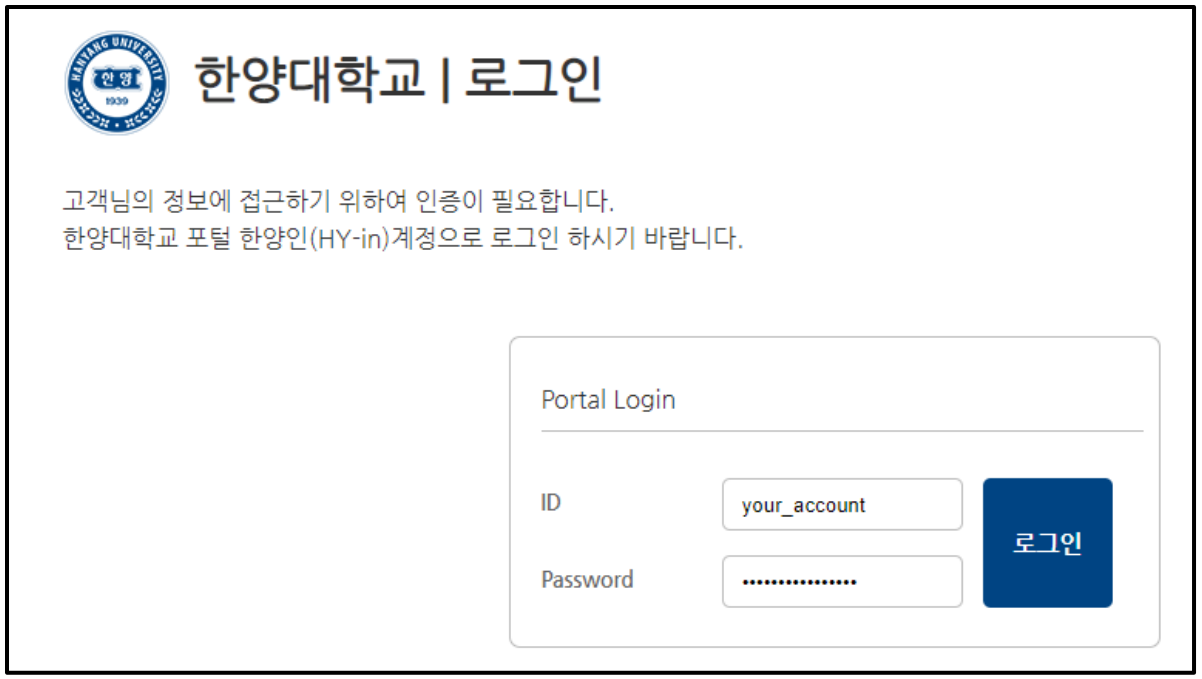
GitLab Login

1. At “hconnect.hanyang.ac.kr”, click “Sign in with Hanyang”



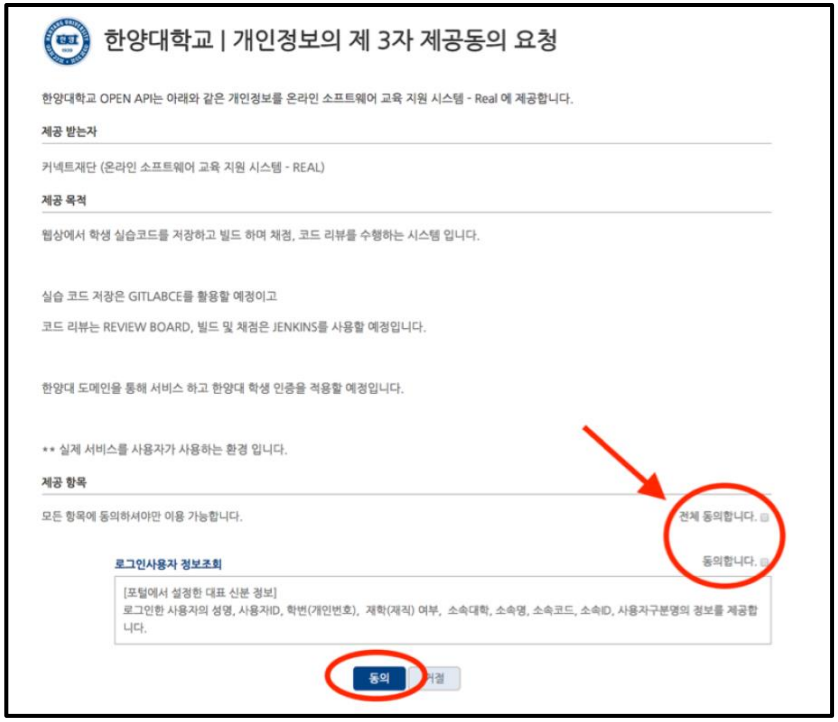
GitLab Login

2. Login with Hanyang account



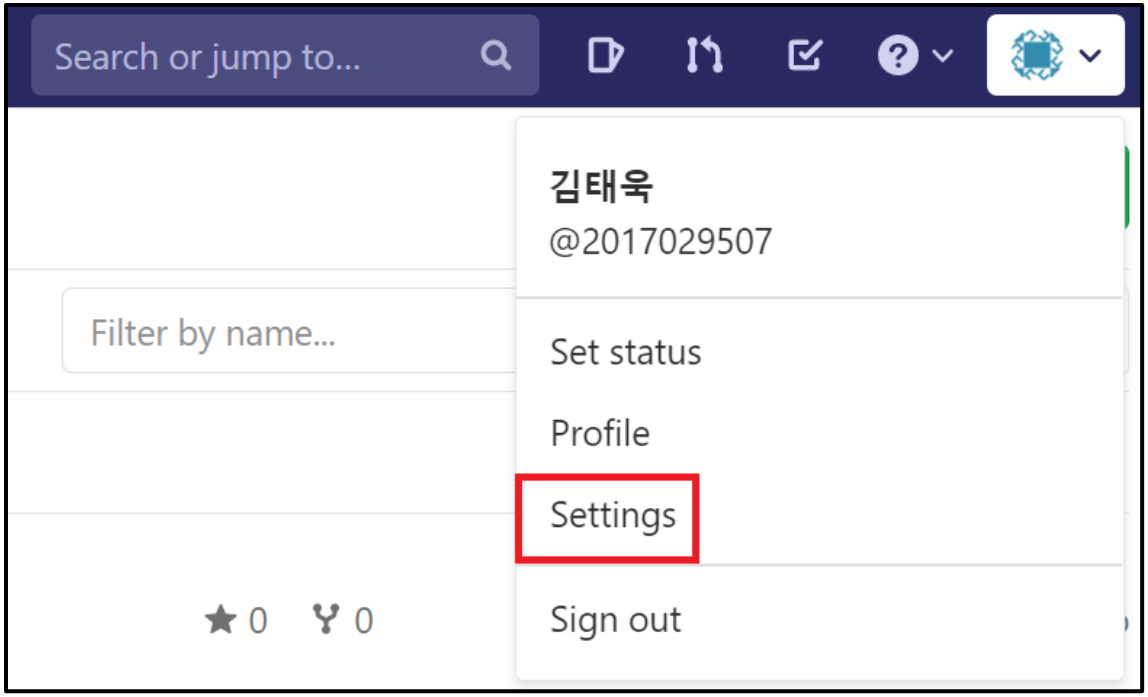
GitLab Login

3. Agree to terms of information provision



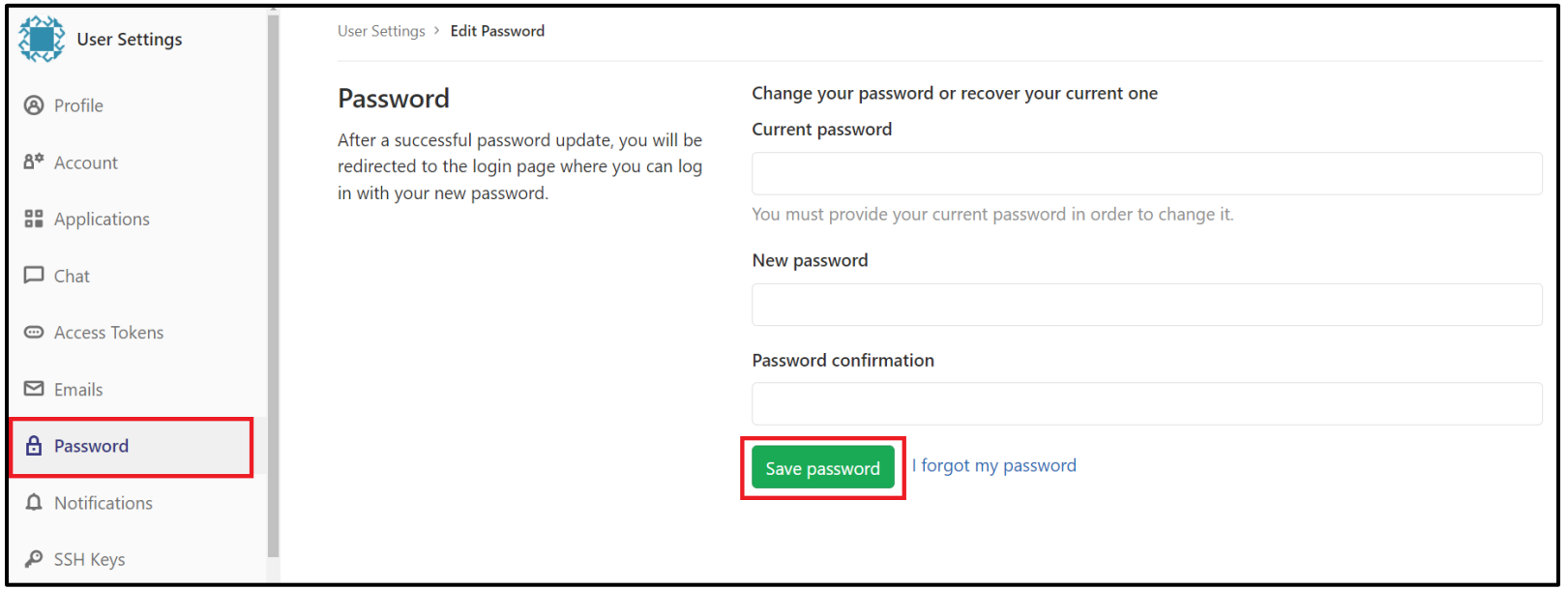
GitLab Login

4. Set password



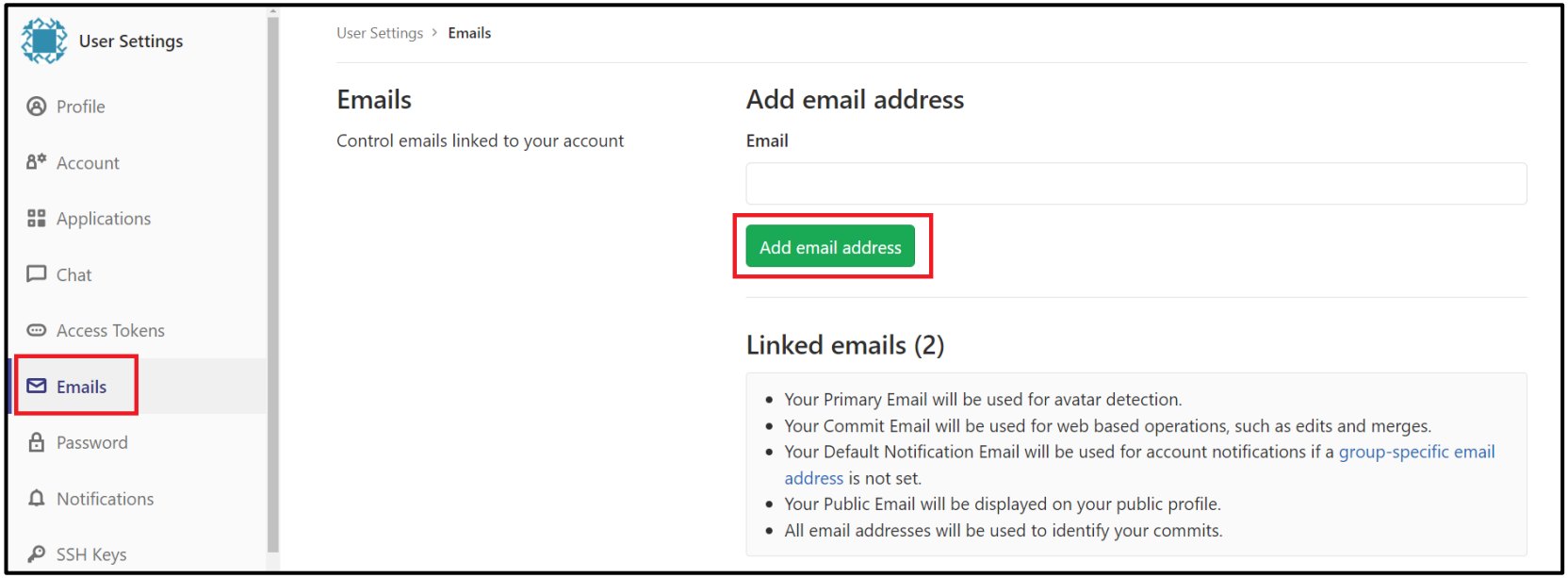
GitLab Login

4. Set password



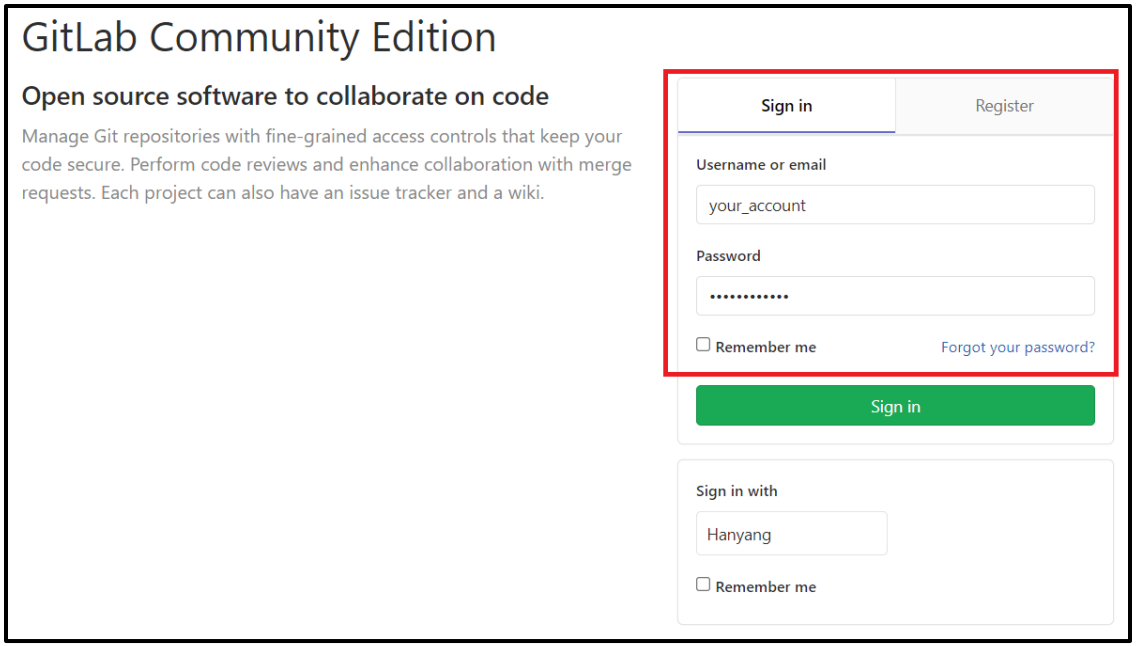
GitLab Login

5. Set email



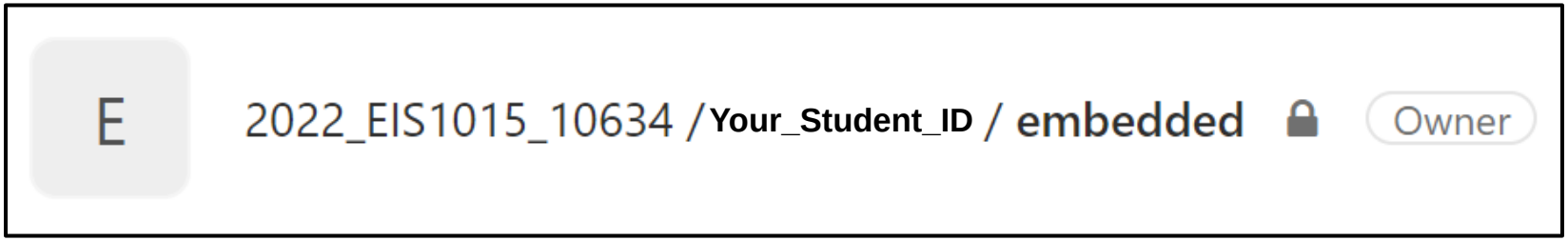
GitLab Login

6. After setting password and email, you can login without clicking "Sign in with Hanyang"



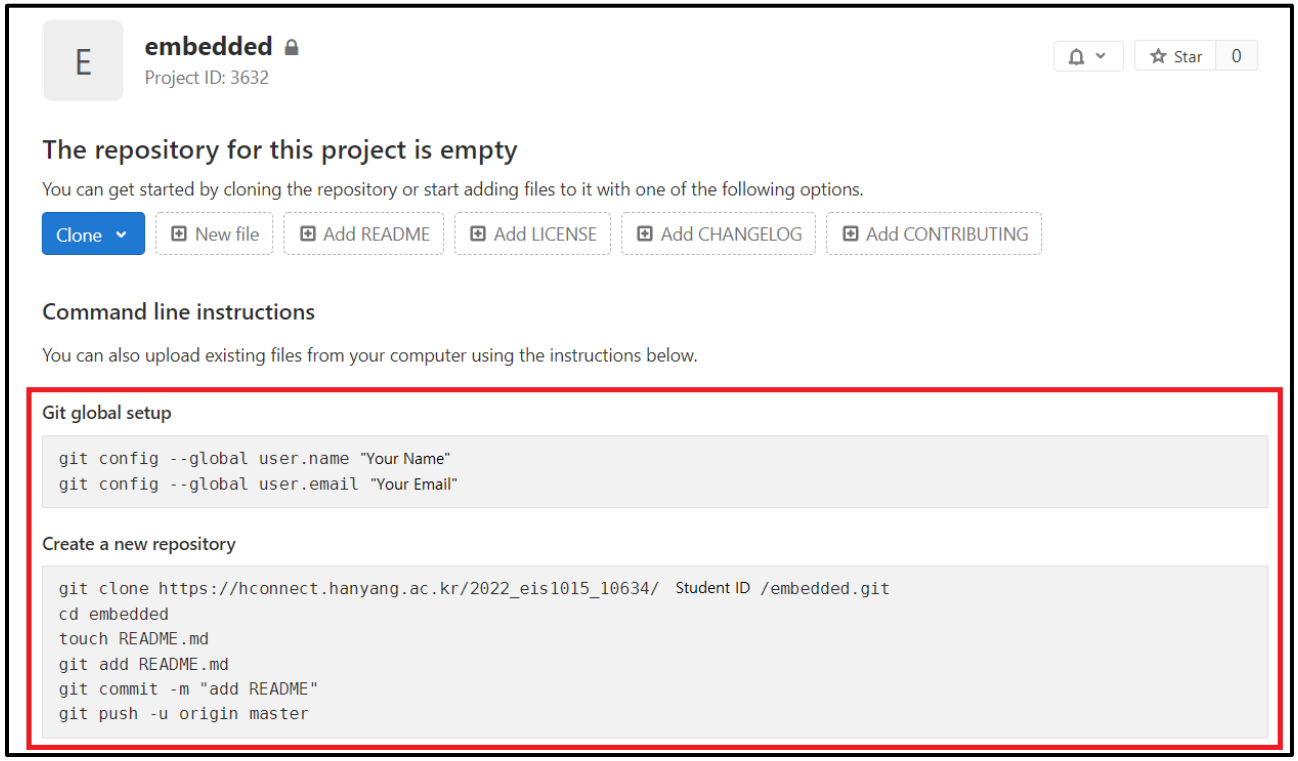
GitLab Setup

7. Click “embedded” repository



GitLab Setup

8. Setup git environment on your Linux



GitLab Setup

8. Setup git environment on your Linux

```
$ apt-get install git
```

```
$ git config --global user.name “Your Name”
$ git config --global user.email “Your Eamil”
```

GitLab Setup

8. Setup git environment on your Linux

```
$ git clone “git address”

$ cd embedded
$ echo “this is embedded repo” > README.md

$ git add README.md
$ git commit -m “add READMD”
$ git push -u origin master
```

Thank you