



CS518 Intro to Software Engineering

Lab section

TAs

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Introduction

- Mini-lecture + practice (Wed)
- ~11 labs + project (web app)
- Group work (3~4 people)
- Design
- Database
- Web server
- Containerization
- Deployment



Office Hours

- In person : Monday during assigned lab time, in the lab room
- Online: time TBD, on Discord (#CS518 & #CS518-Lab)



Lab Policies

- Attendance (please be on time)
- Be proactive (please reach out to us asap)
- Teamwork





More Questions?



Lab-0 Intro



Environment Setup

- **Canvas** (have access to CS518 and being assigned to a group)
- **Discord** (have access to #CS518 and #CS518-Lab)
- **Terminal** (PowerShell, Windows Terminal...)
- **IDE** (strongly recommend, VSCode)
- Programming Languages (Java, Python)
- DevOps (**Git**, Azure Functions, Docker..)
- Accounts (Azure for Students, Docker Hub)



Discord

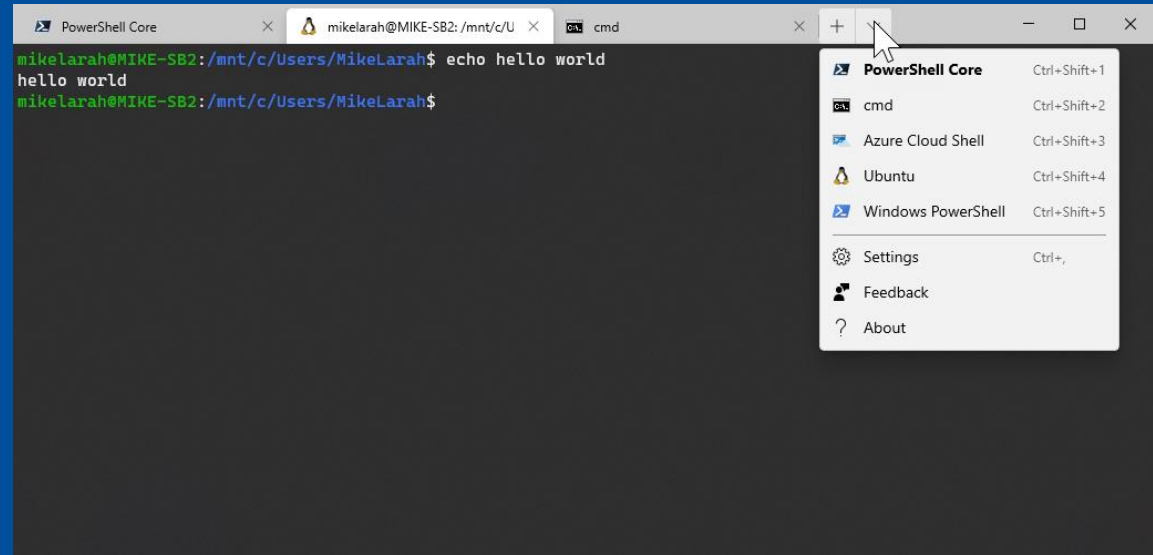
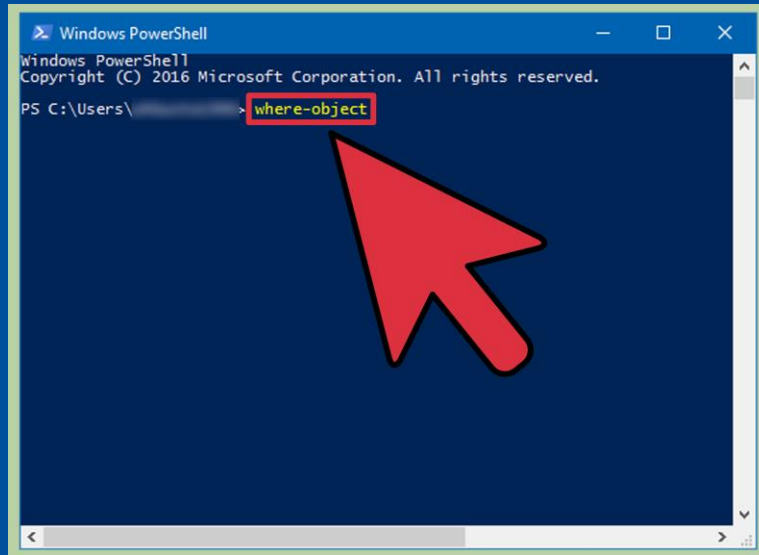
- Set up a breakout room on Discord for your team! (one person)

/breakout create @teammate1 @teammate2 ...@ta/cs518:online
@ta/cs518:offline... name L0(Your section No.)-(Your group No.)



Terminal

- Windows



- MacOS (terminal)
- Linux



CLI

- List files (dir / ls)
- Navigate to different directories (cd)
- Remove file(s) (rm)
- Copy files(s) (cp)
- Git (git)



Git

- <https://git-scm.com/downloads>
- Ensure git is installed and accessible from your terminal (`git --version`)
- Setup SSH keys (`ssh-keygen -t rsa -b 2048`)

GitLab Menu

User Settings

- Profile
- Account
- Applications
- Chat
- Access Tokens
- Emails
- Notifications
- SSH Keys**
- GPG Keys
- Preferences
- Active Sessions
- Authentication log
- Usage Quotas

User Settings > SSH Keys

Search settings

SSH Keys

SSH keys allow you to establish a secure connection between your computer and GitLab.

Add an SSH key

To add an SSH key you need to [generate one](#) or use an [existing key](#).

Key

Paste your public SSH key, which is usually contained in the file `~/ssh/id_ed25519.pub` or `~/ssh/id_rsa.pub` and begins with `'ssh-ed25519'` or `'ssh-rsa'`. Do not paste your private SSH key, as that can compromise your identity.

Typically starts with "ssh-ed25519 ..." or "ssh-rsa ..."

Title

e.g. My MacBook key

Expiration date

年/月/日

Give your individual key a title. This will be publicly visible.

Key becomes invalid on this date.

Add key



Git Activities

- Go to your group's codebase
- Create a new project
- Clone the created project to your local
- Start working on it

`git add .`

`git commit -m "some meaningful messages"`

`git push`

`git pull`



Merge Conflicts

- Merging and conflicts are a common part of the Git experience
- `git merge --abort`, revert back to where you were before

```
content.txt
1  red
2  green
3  blue
   Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes
4  <<<<<< HEAD (Current Change)
5  yellow
6  white
7  =====
8  john
9  michael
10 >>>>>> his-branch (Incoming Change)
11
```





More Questions?

