# Introduction

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SWPP Practice Session

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# Schedules (tentative)

- Week 1: Practice session intro & setup
- Week 2: Git 101
- Week 3~?: LLVM and IR
- Mid~Late April: Beginning of project
- Late April: Project, collaboration, and tips

# Sign Up for GitHub

- A web service for collaborative development

  https://github.com

- Create GitHub account and submit your username by 3/13!

  More details in this GitHub issue

# Development Environment

- Use Linux or macOS
- If you're new to Linux, try Ubuntu Desktop.

  Download Ubuntu Desktop
- Or, use WSL *Windows Subsystem for Linux* if you use Windows 10.

  Official WSL installation guide
- macOS users: Disable iCloud sync for your project directories!

# Development Environment

- Your compiler should support C++17 standards
- LLVM and project skeletons use CMake

  Download Cmake
- Using Ninja is recommended for faster build

  Download Ninja
- You can also get CMake and Ninja via package managers

# Development Environment

We recommend using Visual Studio Code

Download Visual Studio Code

- Lightweight and portable (Windows, macOS, Linux, x86, ARM, ⋯)
- Integrated git and GitHub functionalities
- Vast amount of extensions
- ~~Quicker response from TA~~

# Development Environment

Useful extensions for Visual Studio Code

- C/C++: Syntax highlighting, error squiggle, autocomplete, formatting, file link, and many more!
- CMake: Quick configuration, build shortcuts
- LLVM: LLVM IR syntax highlighting

# Development Environment

Use Remote extensions for remote server or WSL

- Remote – SSH for servers connected through SSH
- Remote – WSL ‘connects’ to Linux subsystem from Windows
- Most extensions can be installed on remote side as well

# Development Environment

- We'll use LLVM throughout this semester
  - Most assignments are about LLVM
  - Term project is based on LLVM
- Try building LLVM from source on your own!
  - First try getting used to CLI*command-line interface* if you're not familiar with it
  - Also, check if your development environment is well-configured