

PA01 : Build and Run Pilot Engine

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Objective

- Building Pilot engine development environment for upcoming programming assignments
- Getting familiar with Smartchair (Assignment Submission Platform) submission flow

Description

Building Pilot engine development environment

Downloading Source Code

Course Team provided two methods to download the source code:

- Download from GitHub
 - <https://github.com/BoomingTech/Pilot>
- Download from our course-site
 - https://cdn.boomingtech.com/games104_static/upload/Pilot.zip

Install CMake

Pilot Engine uses CMake to generate project files.

Please refer <https://cmake.org/download/> for downloading and installing CMake

Build and Run Pilot

Windows

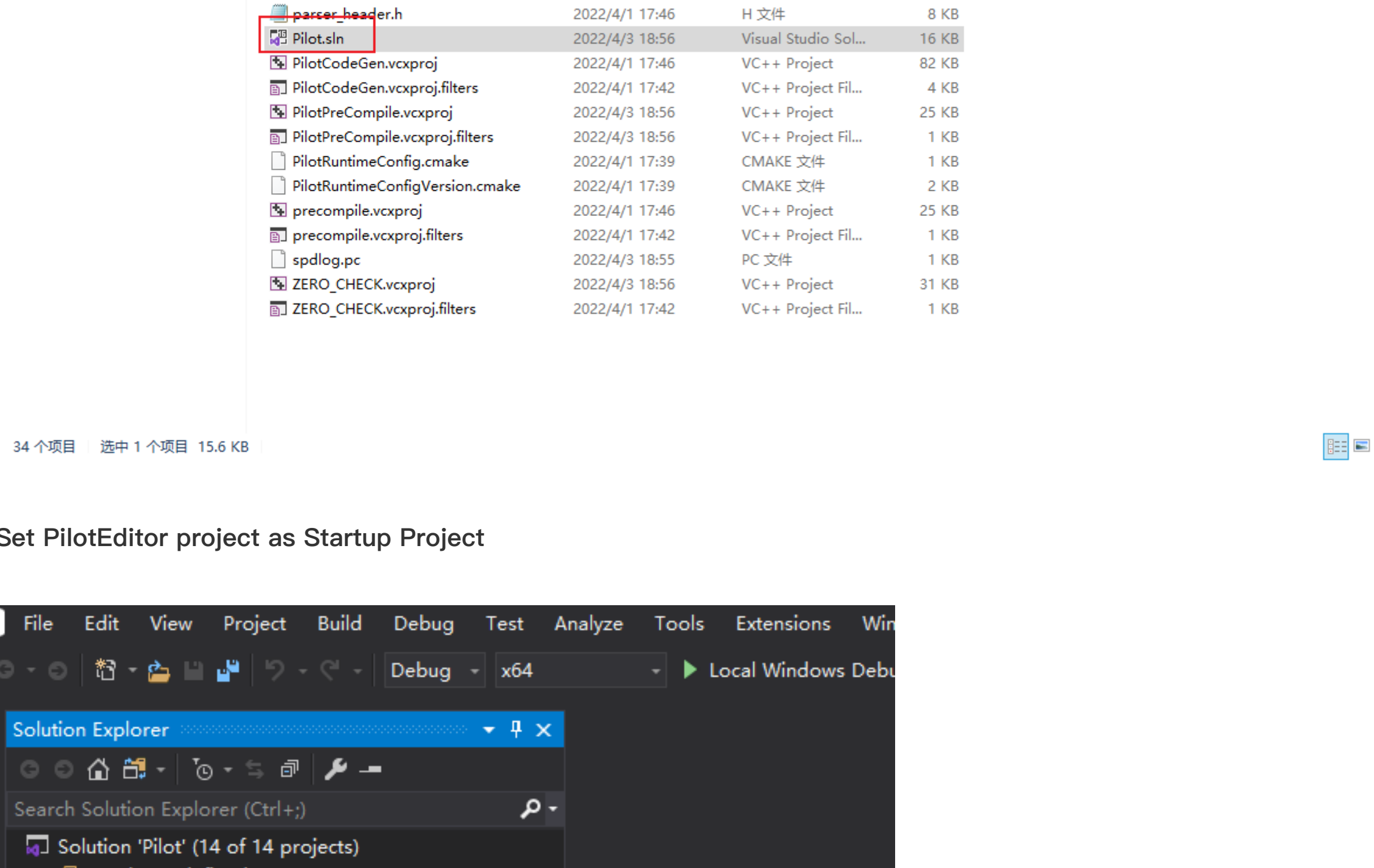
Visual Studio 2019 or later is the recommended IDE on Windows.

Generate the project files with CMake

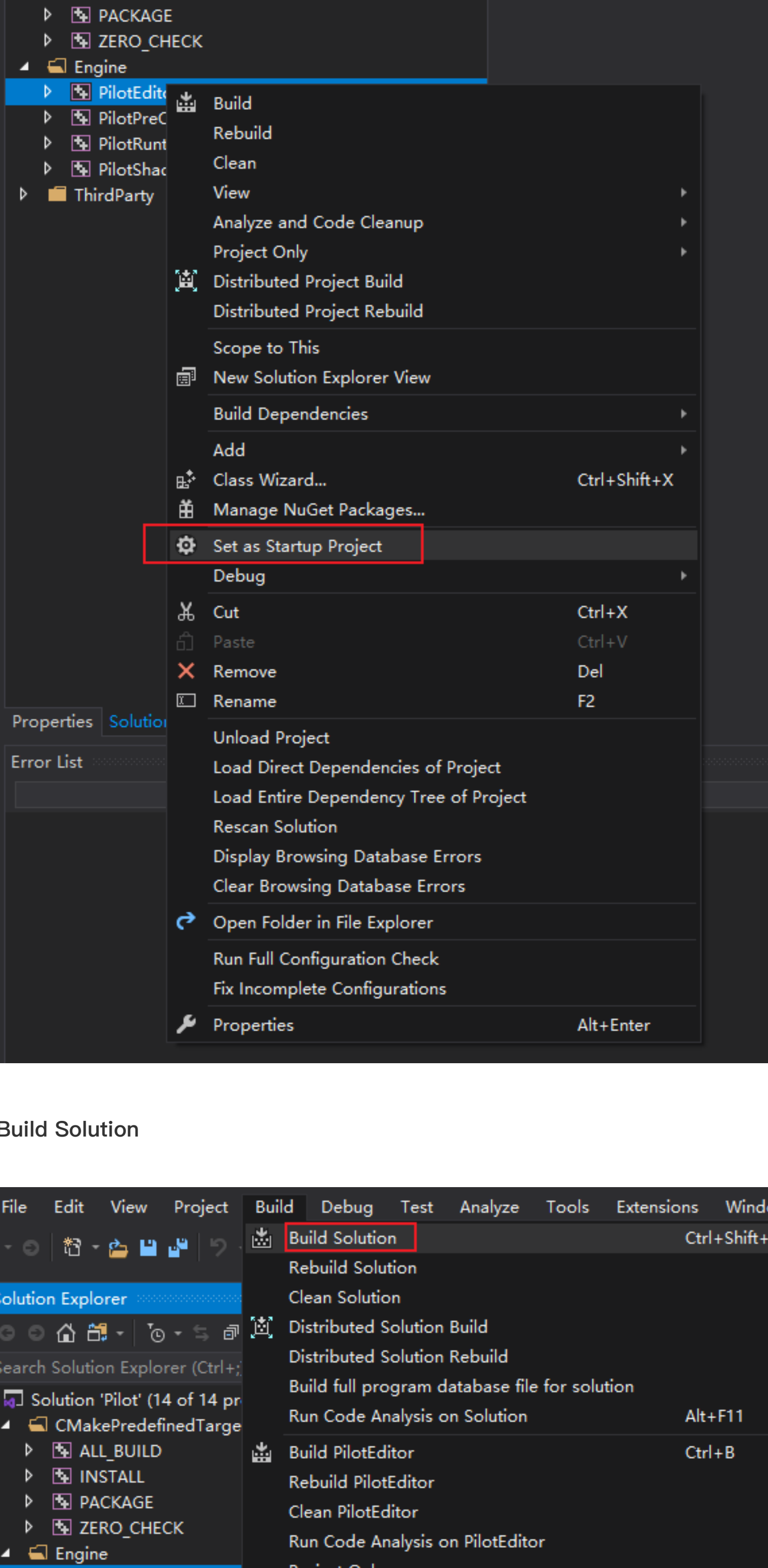
- Run the following command from Pilot root directory:

```
$ cmake -S engine/ -B build
```

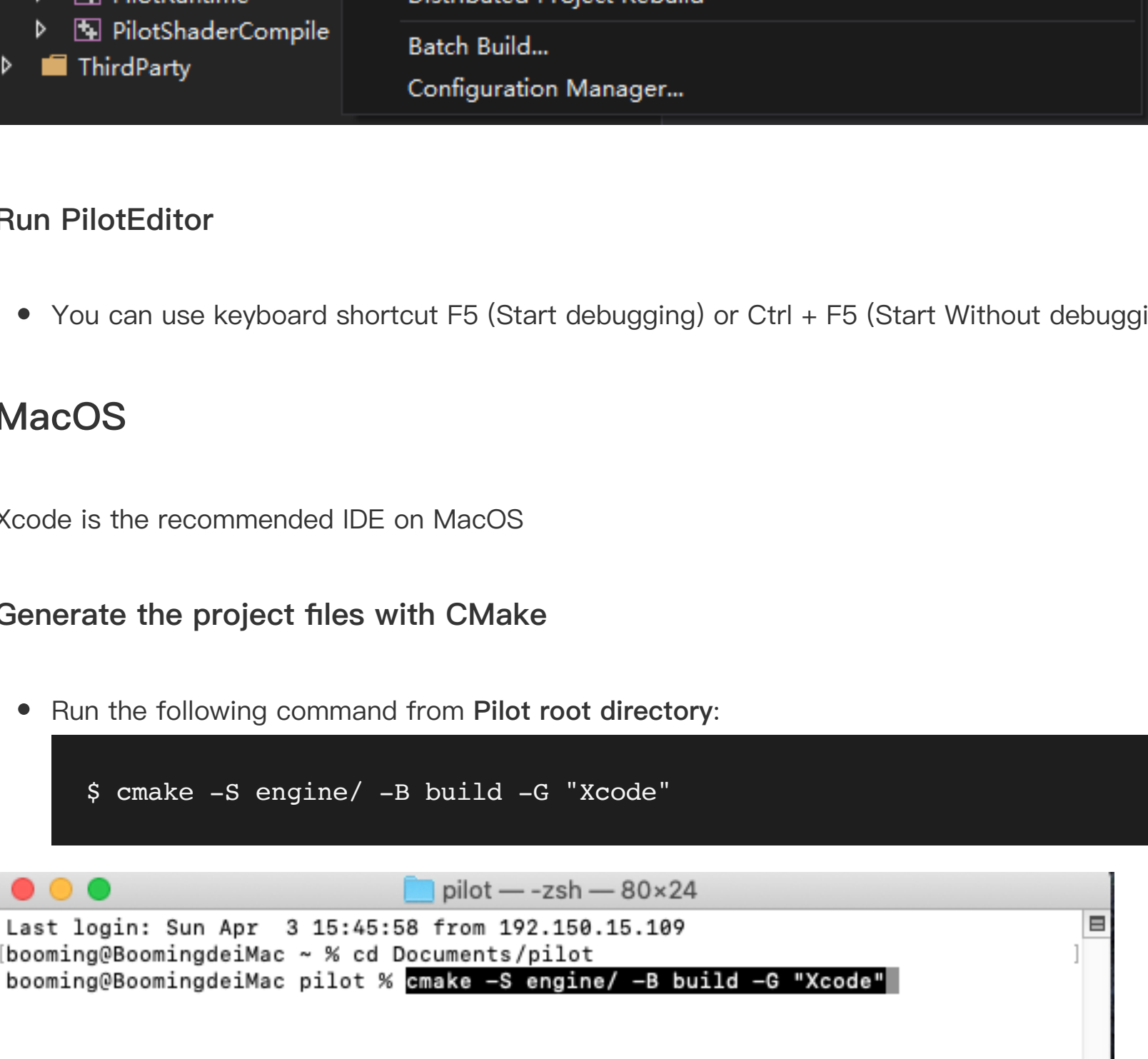
Open Pilot.sln with Visual Studio



Set PilotEditor project as Startup Project



Build Solution



Run PilotEditor

- You can use keyboard shortcut F5 (Start debugging) or Ctrl + F5 (Start Without debugging).

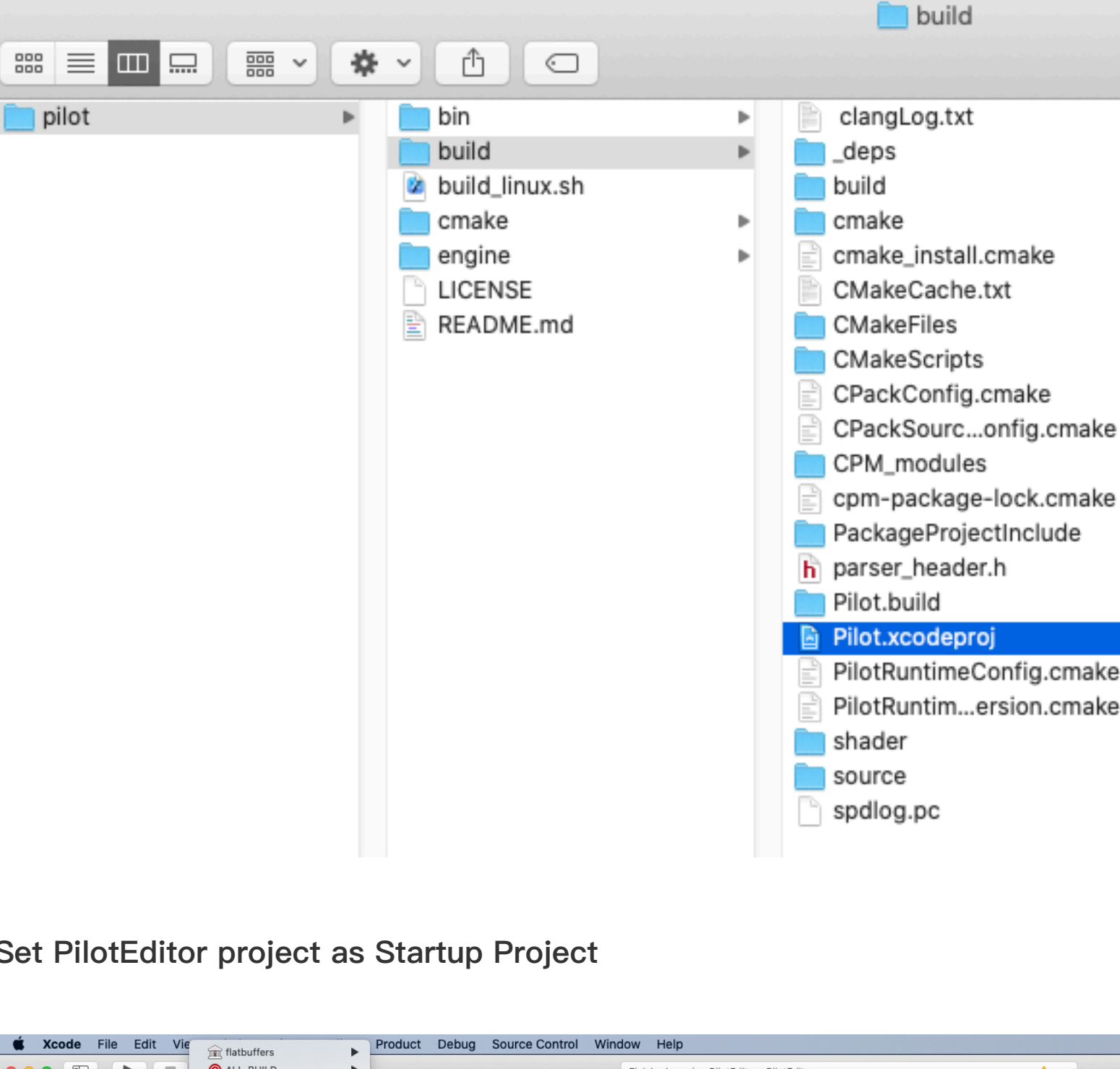
MacOS

Xcode is the recommended IDE on MacOS

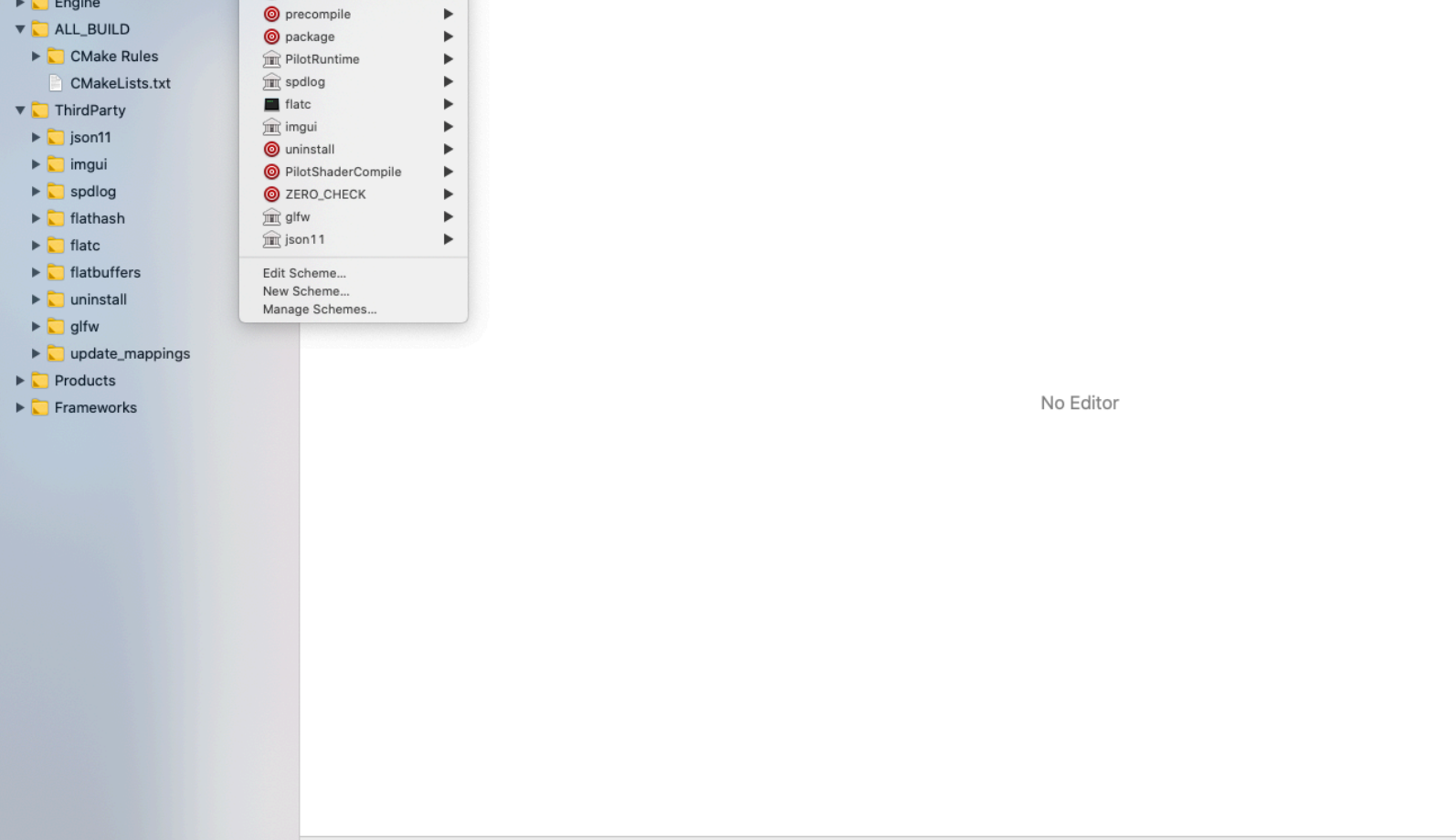
Generate the project files with CMake

- Run the following command from Pilot root directory:

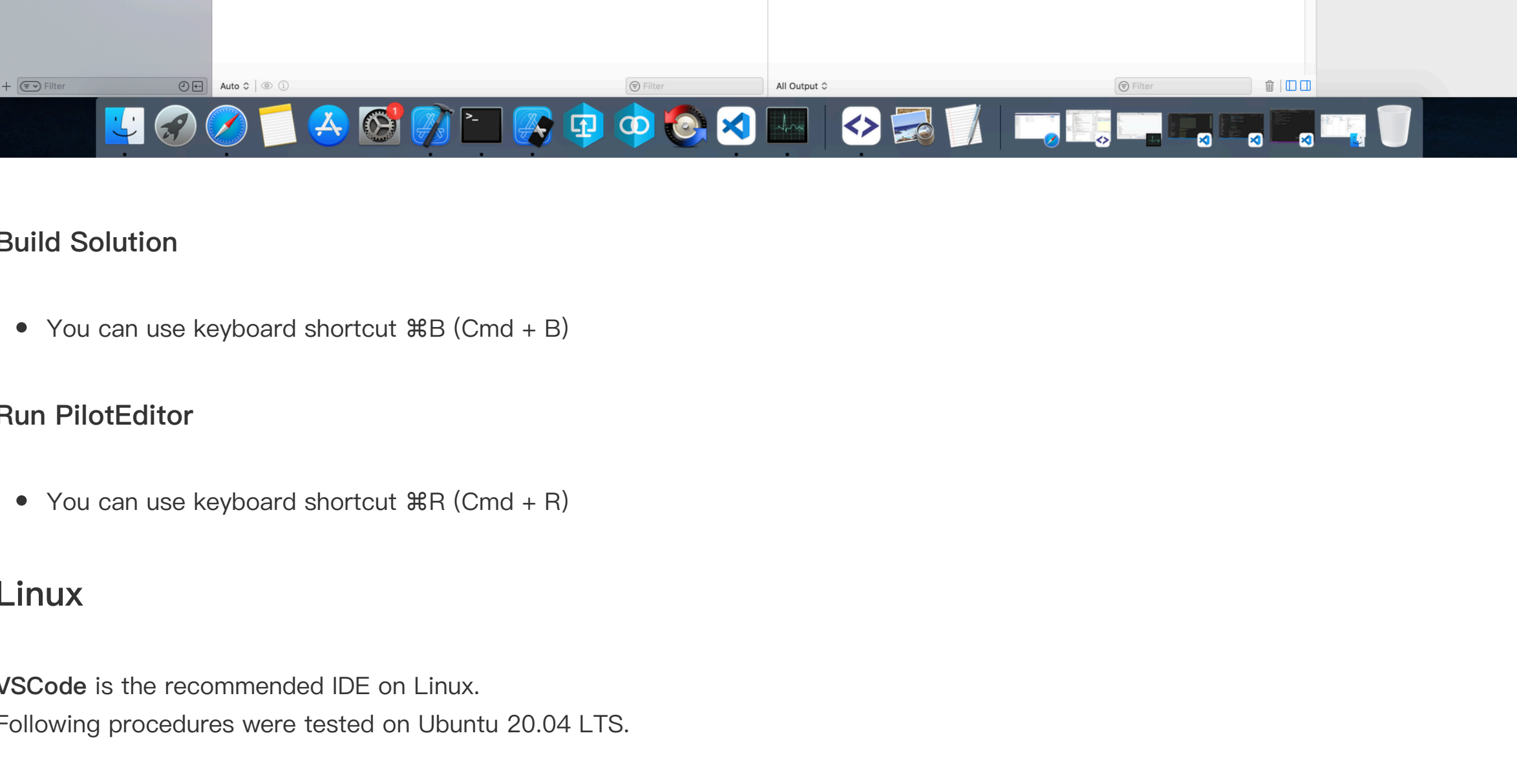
```
$ cmake -S engine/ -B build -G "Xcode"
```



Open Pilot.xcodeproj with Xcode



Set PilotEditor project as Startup Project



Build Solution

- You can use keyboard shortcut ⌘B (Cmd + B)

Run PilotEditor

- You can use keyboard shortcut ⌘R (Cmd + R)

Linux

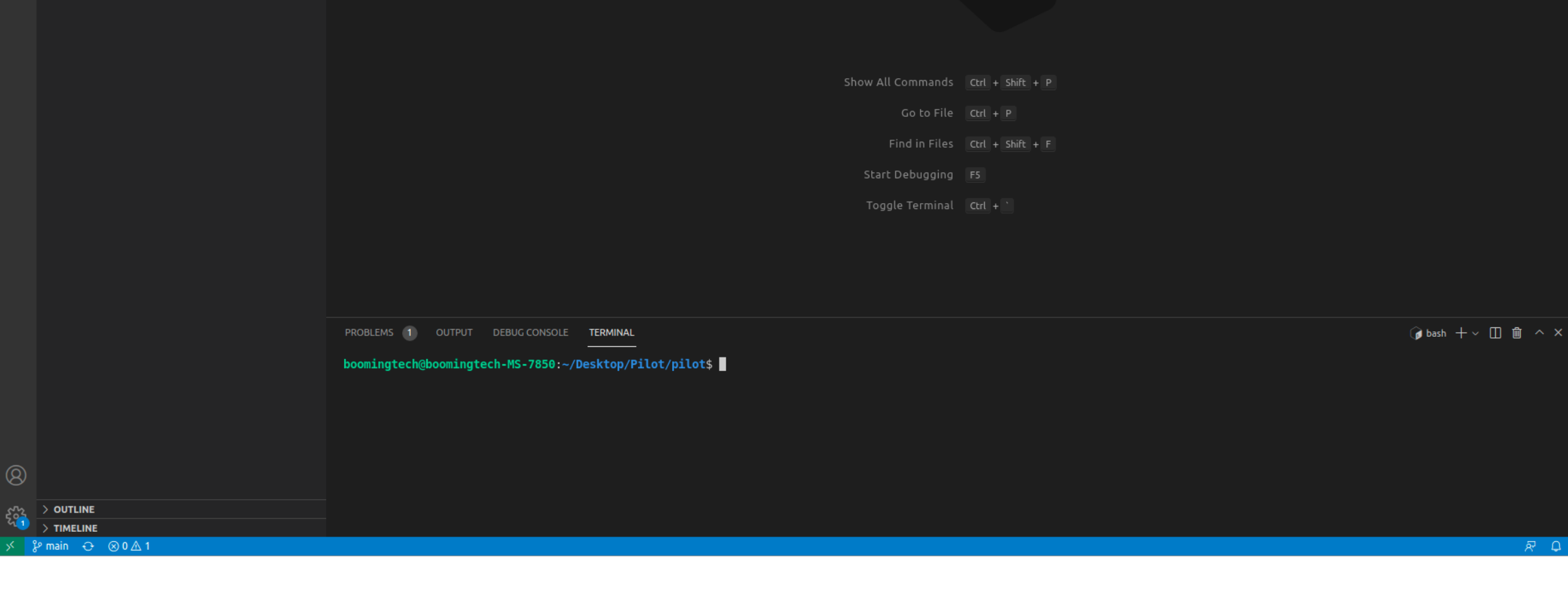
VSCode is the recommended IDE on Linux.

Following procedures were tested on Ubuntu 20.04 LTS.

Configure development environment

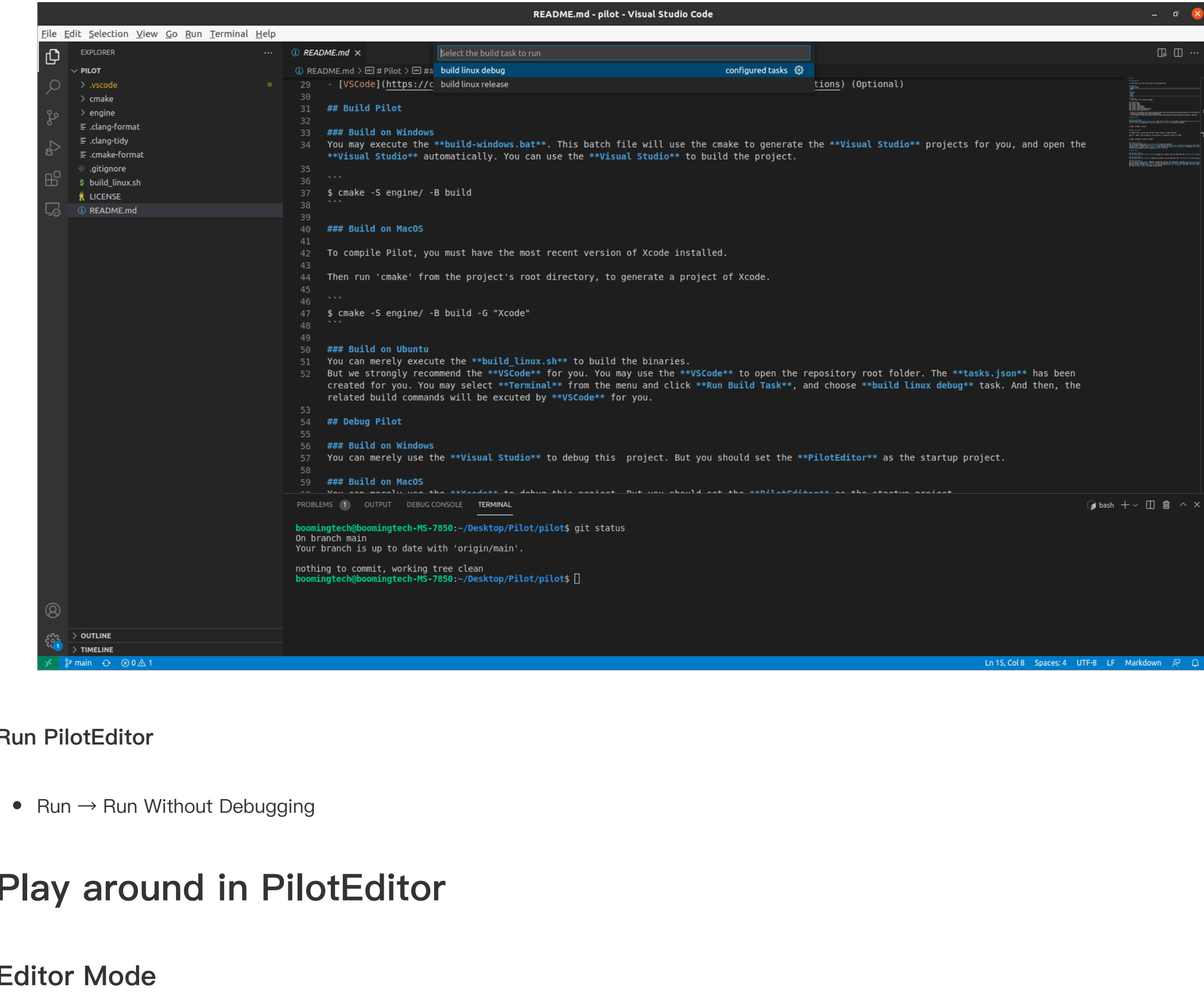
- Follow the instruction in README.md.

Open the root directory with VSCode



Build Solution

- Terminal → Run build task → build linux debug



Run PilotEditor

- Run → Run Without Debugging

Play around in PilotEditor

Editor Mode

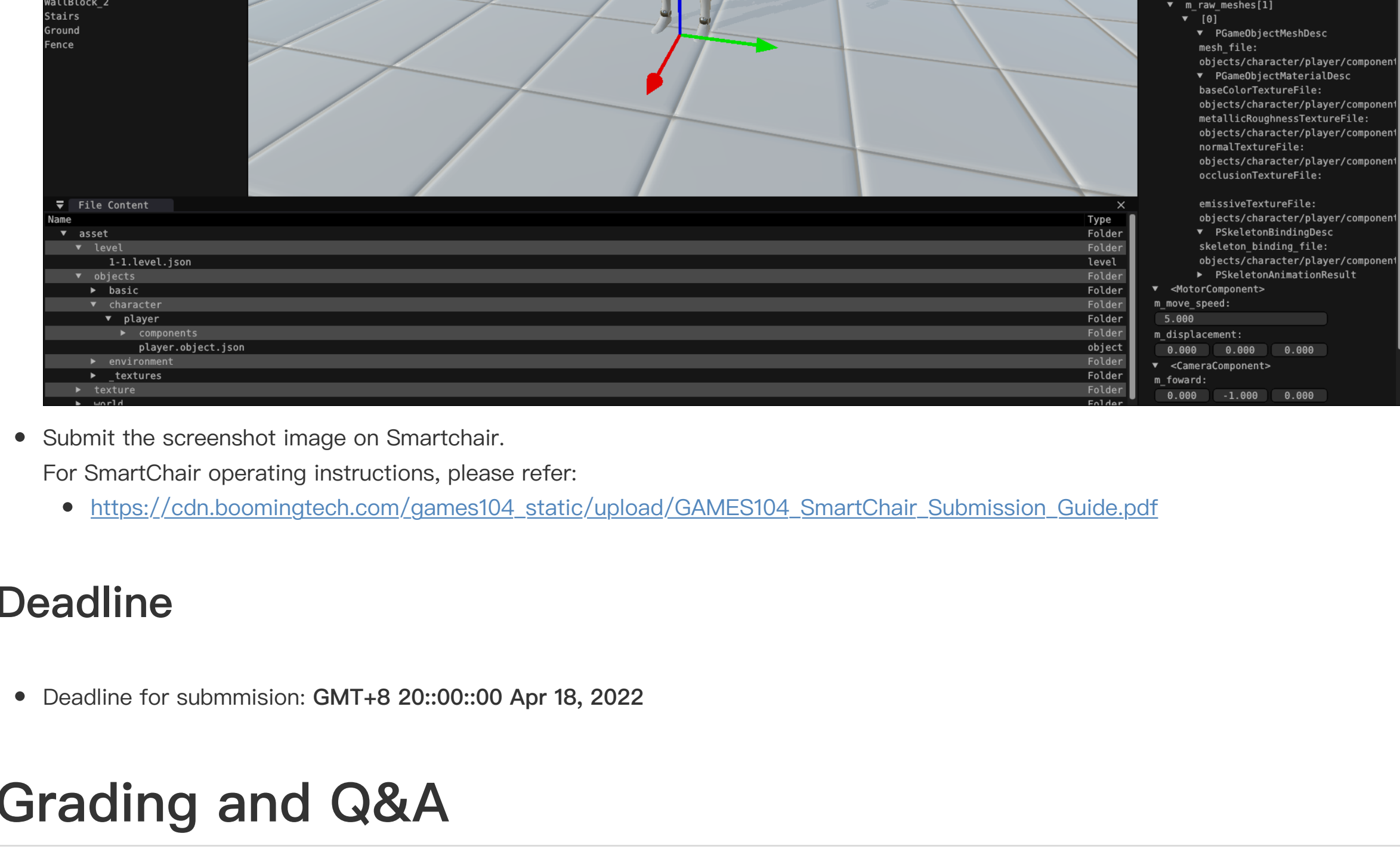
- Translate, rotate, and scale game objects
- Add and delete game objects
- Reload and save current level

Game Mode

- Controlling the robot (ASWD to run and press shift for sprint)

Submission

- After running PilotEditor successfully, choose your favorite view and take a screenshot.



- Submit the screenshot image on Smartchair.

For SmartChair operating instructions, please refer:

- https://cdn.boomingtech.com/games104_static/upload/GAMES104_SmartChair_Submission_Guide.pdf

Deadline

- Deadline for submission: GMT+8 20:00:00 Apr 18, 2022

Grading and Q&A

- The objectives for this assignment are building development environment and getting familiar with Smartchair submission flow. So this assignment will not be graded.
- If you have any question during building Pilot development environment, you can ask in our Wechat Course Group or post on our course forum. Course Team and Course Supporters will answer.
 - [Course Forum](https://cn.boomingtech.com/games104_forum/) : https://cn.boomingtech.com/games104_forum/
 - Wechat Course Group : Please add gameswebinar as Friend and send "104" to enter the course group

Attention

- Each assignments must be accomplished independently.
- Please submit your assignment before the deadline.