PA01 : Build and Run Piccolo Engine

Objective

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

Description

Building Piccolo engine development environment

Downloading Source Code

Course Team provided two methods to download the source code:

- Download from GitHub
    - https://github.com/BoomingTech/Piccolo
- Download from our course-site
    - Piccolo.zip

Install CMake

Piccolo Engine uses CMake to generate project files.
Please refer https://cmake.org/download/ for downloading and installing CMake
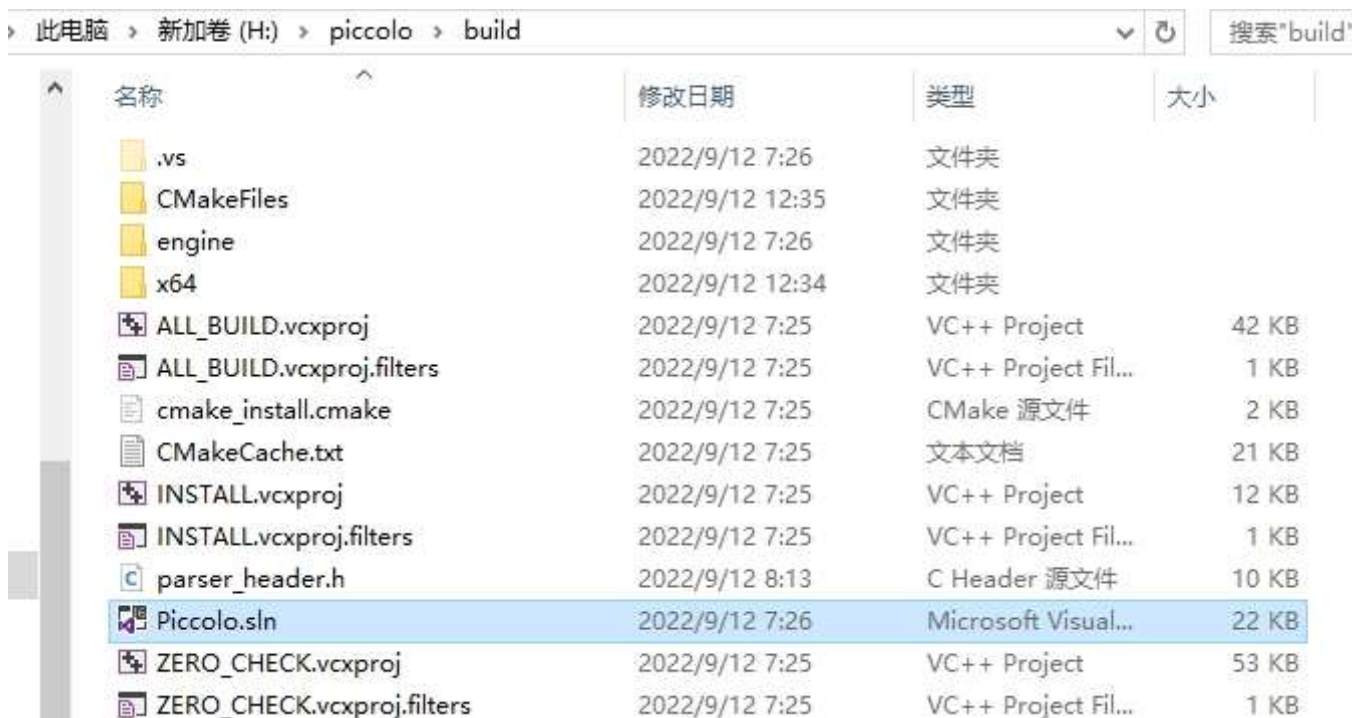
Build and Run Piccolo

Windows

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

Generate the project files with CMake

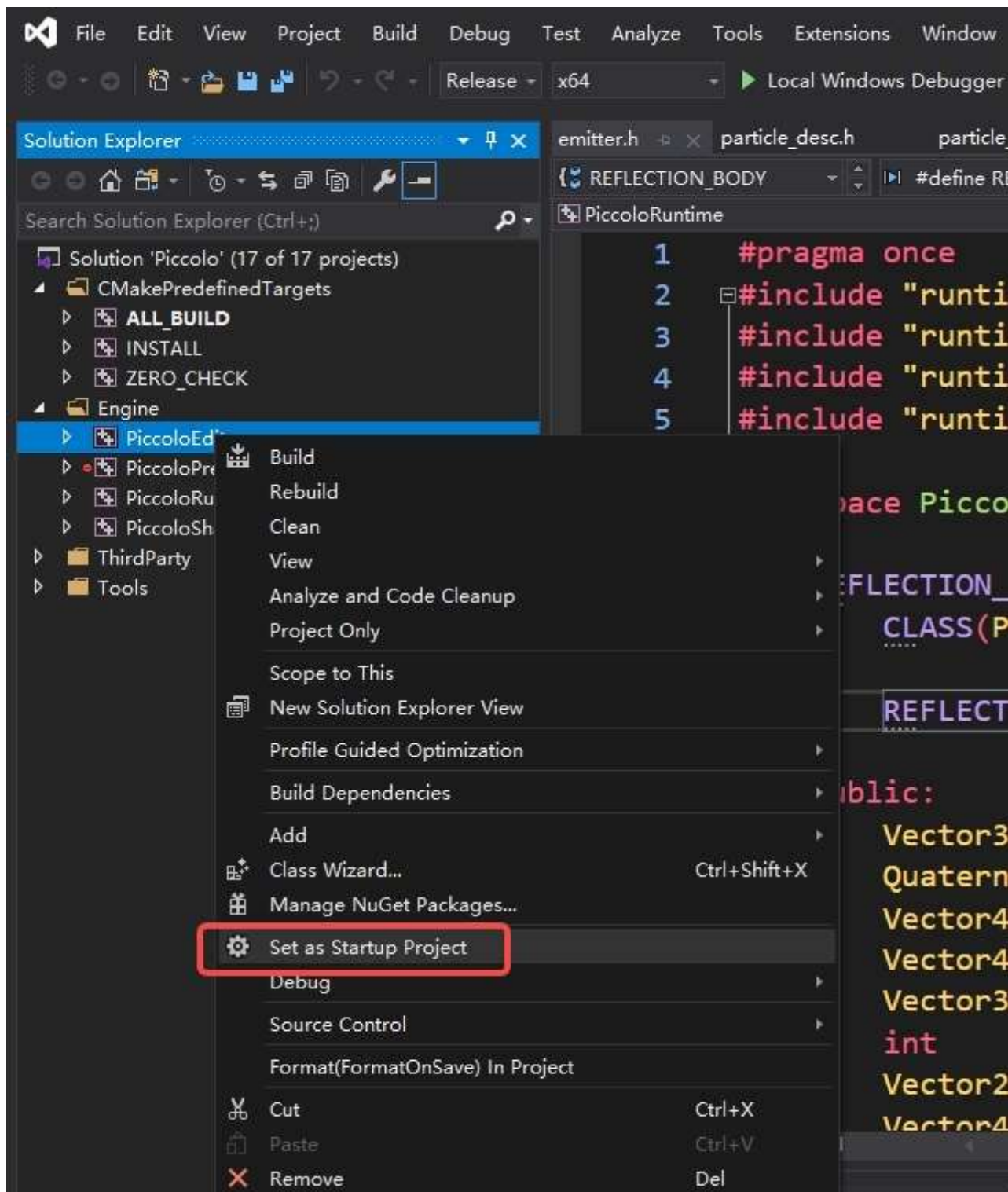- Run the following command from **Piccolo root directory**:

    ```
    $ cmake -S . -B build
    ```

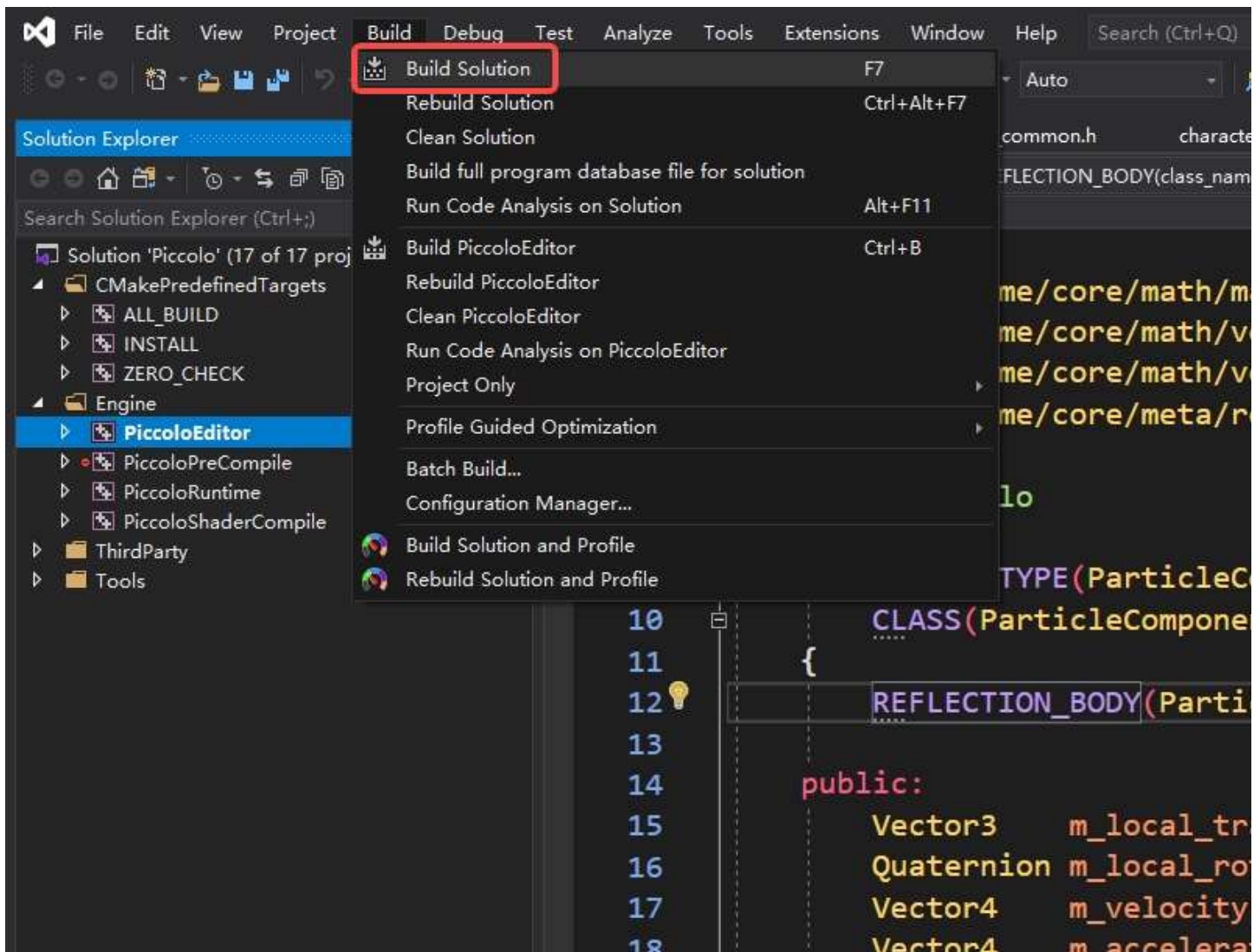**Open Piccolo.sln with Visual Studio**

Set PiccoloEditor project as Startup Project

Build Solution

Run PiccoloEditor

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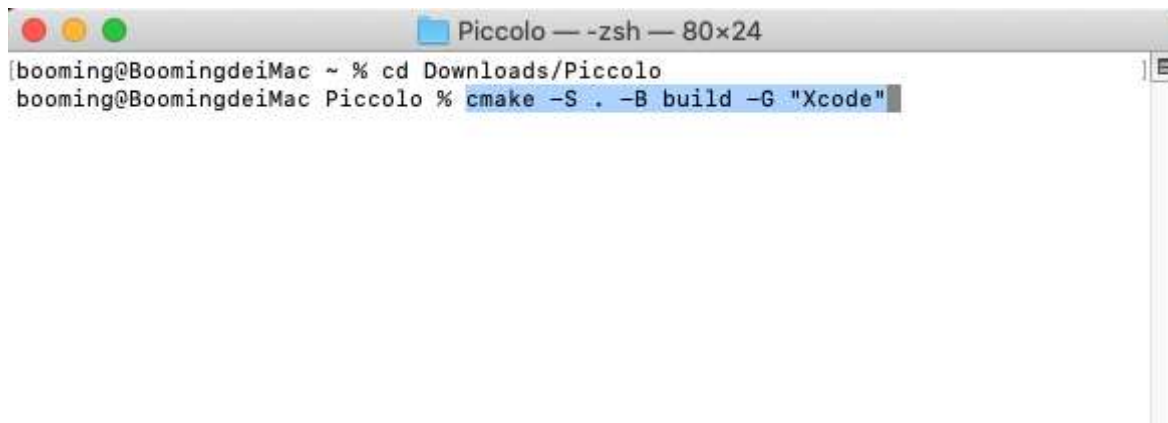
MacOS

Xcode is the recommended IDE on MacOS

Generate the project files with CMake

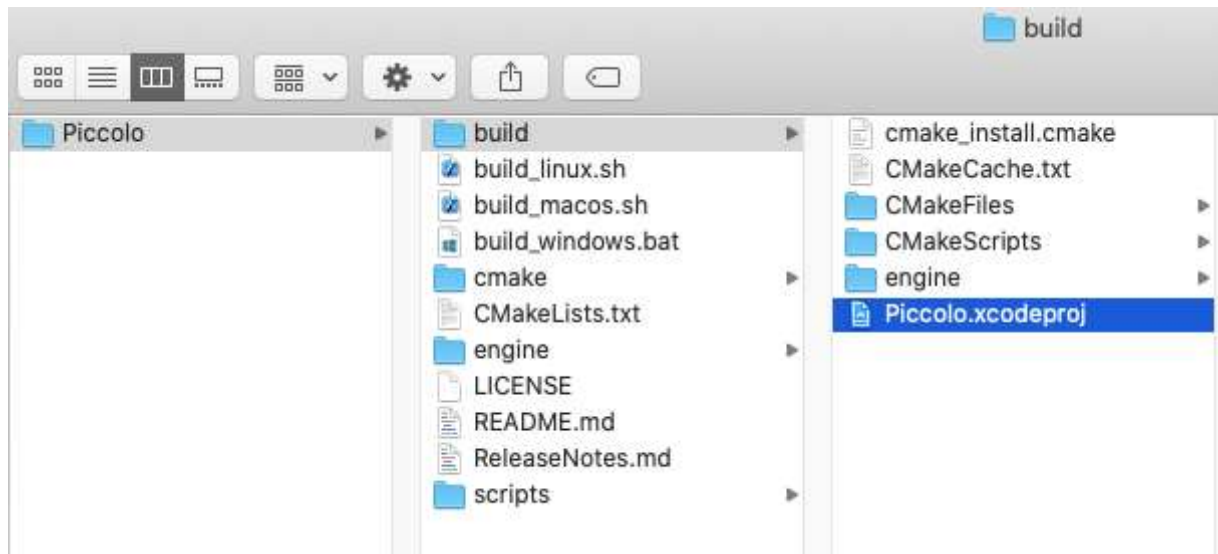- Run the following command from **Piccolo root directory**:

```
$ cmake -S . -B build -G "Xcode"
```
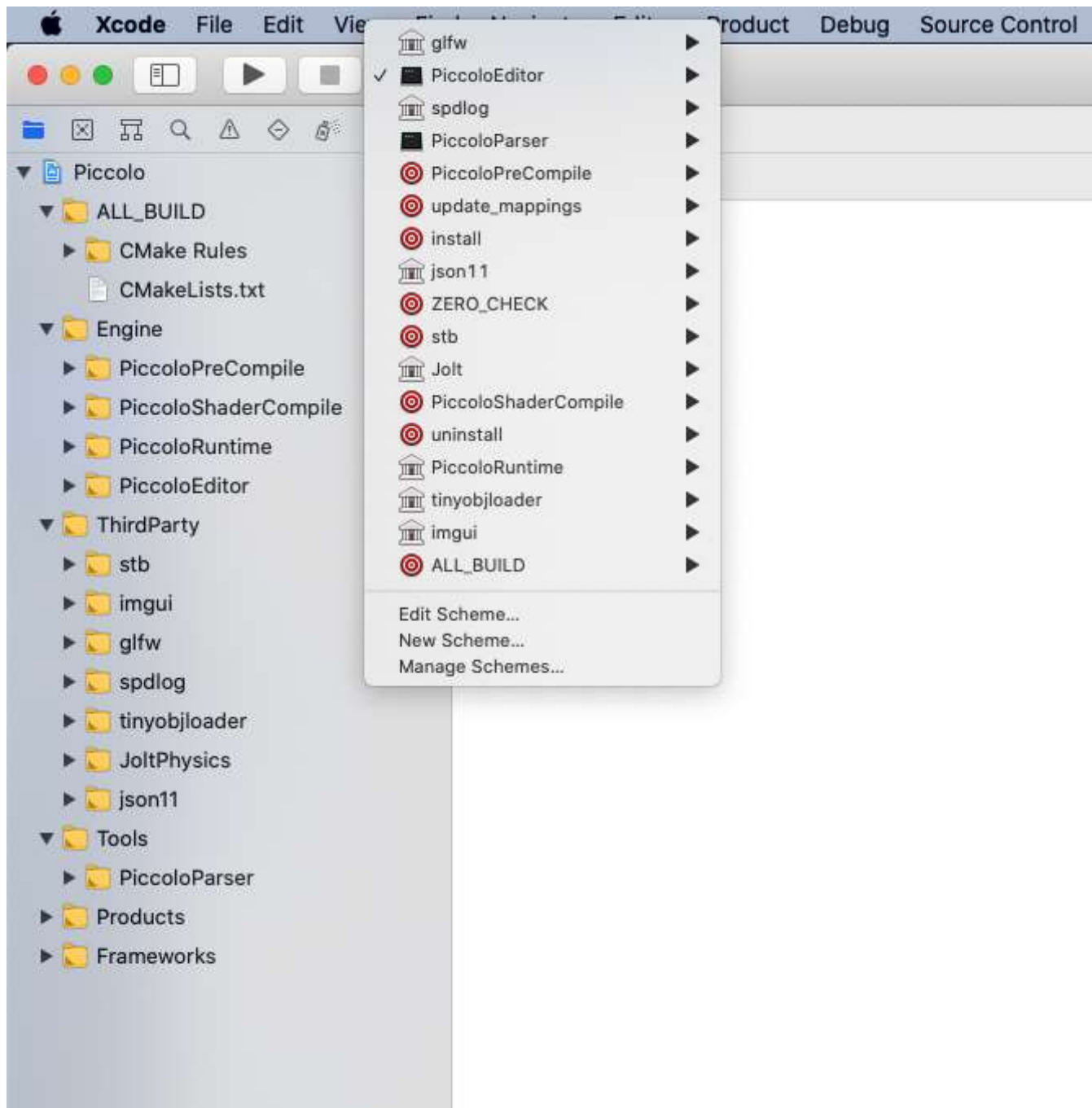
Open Piccolo.xcodeproj with Xcode

Set PiccoloEditor project as Startup Project

Build Solution

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

Run PiccoloEditor

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

Linux

Following procedures were tested on Ubuntu 20.04 LTS.

Generate the project and build with script

- Run the following command from **Piccolo root directory**:

For other usage of the script, please refer the comments in the script.

Run PiccoloEditor

- Run the following command from **Piccolo binary directory** (`bin`)

Play around in PiccoloEditor

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 PiccoloEditor successfully, choose your favorite view and take a screenshot.
- Submit the screenshot image on Smartchair.
  For SmartChair operating instructions, please refer:
    - GAMES104_SmartChair_Submission_Guide.pdf

Deadline

- Deadline for submmision: **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 Piccolo development envrionment, you can ask in our Wechat Course Group or post on our course forum. Course Team and Course Supporters will answer.
    - Course 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.