Simulator Setup

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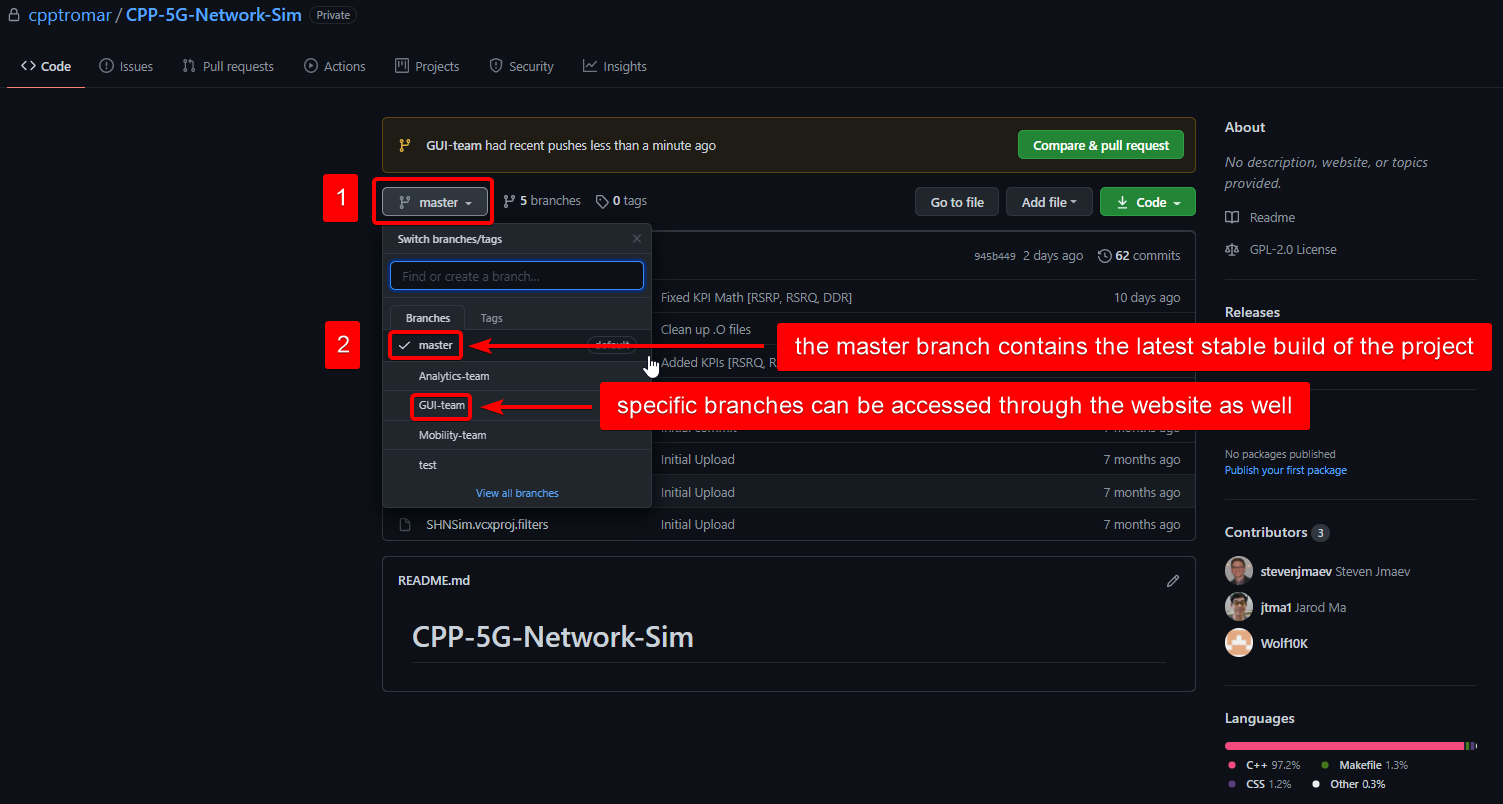
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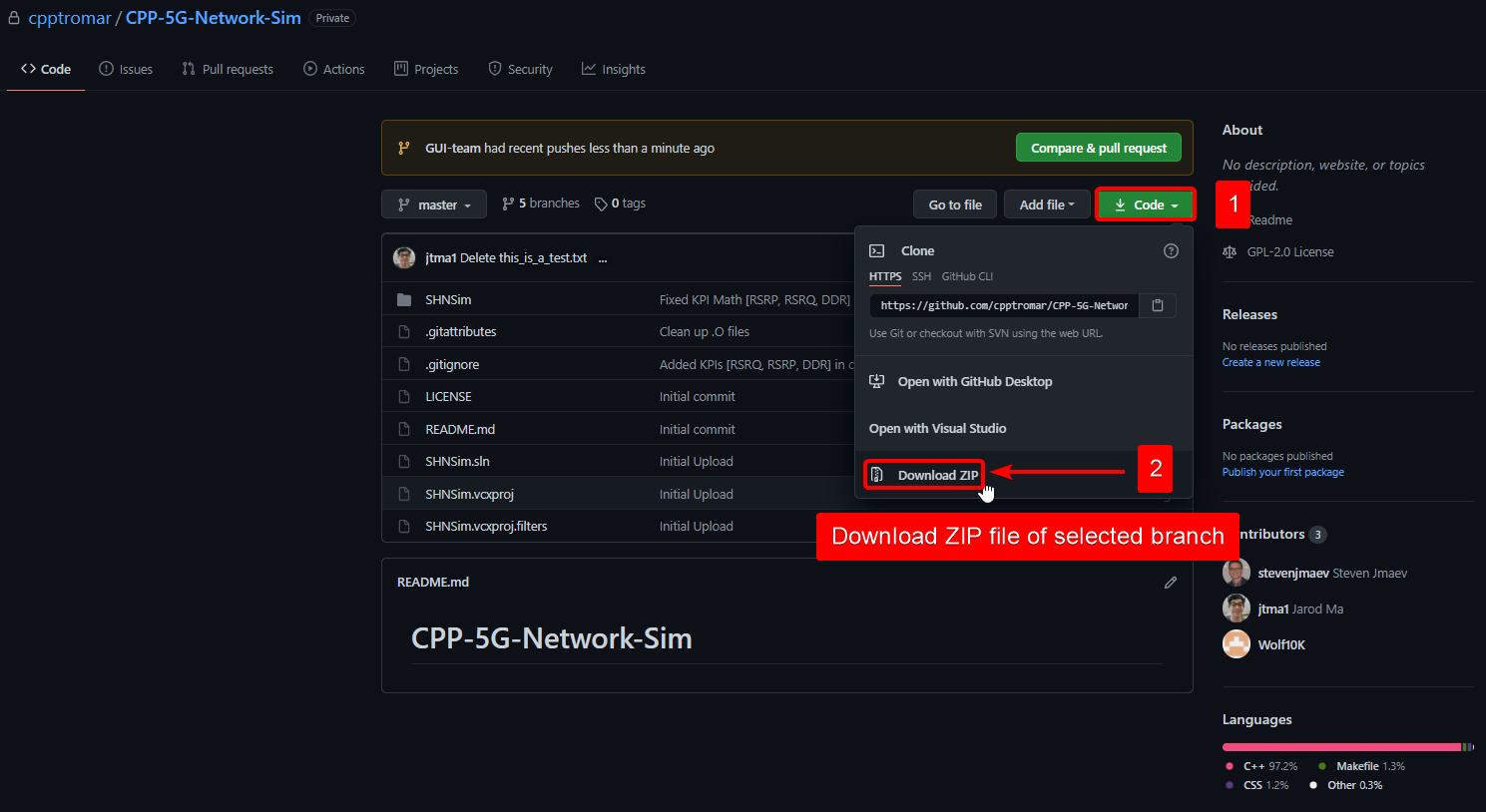
# Installing Linux for Windows 10 (WSL)[[1]](#footnote-1)

1. Follow the steps in this article: <https://docs.microsoft.com/en-us/windows/wsl/install-win10> (These steps may require multiple PC reboots)

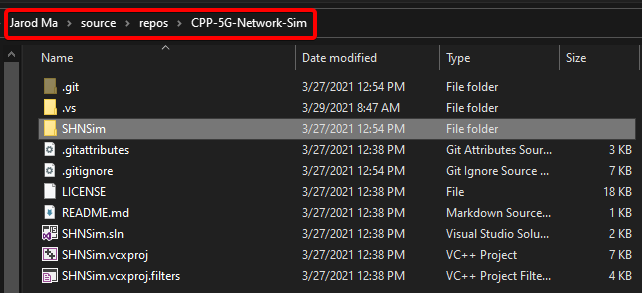
# Download project files from GitHub[[2]](#footnote-2)

Link to the Project GitHub: <https://github.com/cpptromar/CPP-5G-Network-Sim>[[3]](#footnote-3)

1. Choose which version to download
2. Download ZIP file

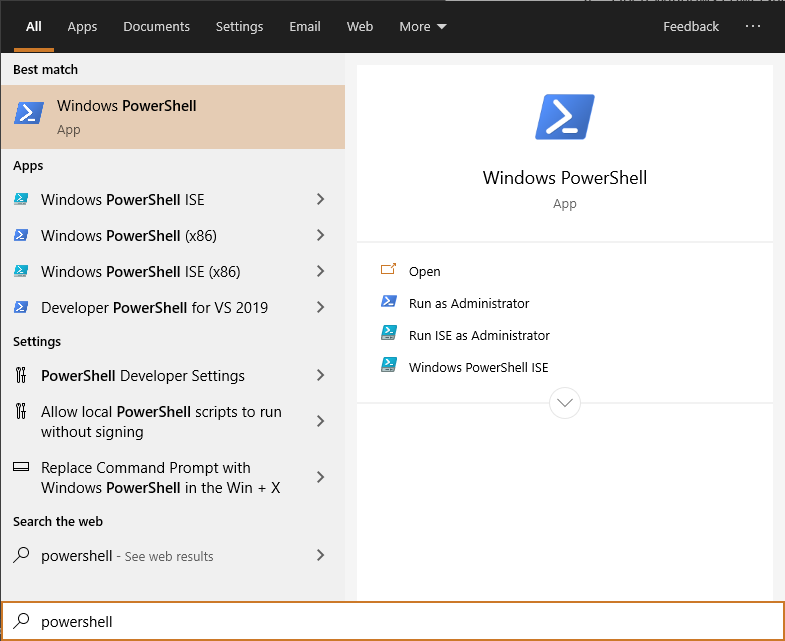


1. Extract ZIP file to a folder[[4]](#footnote-4)



# Installing libraries for WSL

1. Open Windows PowerShell[[5]](#footnote-5)



1. Change directory to wherever the SHNSim folder is located

|  |
| --- |
| cd [path\to\SHNSim\_folder] |

1. Run WSL

|  |
| --- |
| wsl |

1. Install all required packages by running the following commands

|  |
| --- |
| **GTK & Dependency Libraries (for GUI)**  sudo apt-get update  sudo apt-get install libgtk-3-dev  sudo apt-get install libgtk-3-0  sudo apt-get install pkg-config  sudo apt-get install libcairo2-dev  sudo apt-get install libcurl4-openssl-dev |
| **Makefile & G++ Libraries (for compiling)**  sudo apt install make  sudo apt install make-guile  sudo apt install g++ |

# Compiling the code with makefile and running the simulator[[6]](#footnote-6)

1. Open Windows Powershell
2. Change directory to wherever the SHNSim folder is located

|  |
| --- |
| cd [path\to\SHNSim\_folder] |

1. Run WSL

|  |
| --- |
| wsl |

1. Compile the code with makefile

|  |
| --- |
| make output  make clean |

1. Output to Display

|  |
| --- |
| ./output |

1. Linux machine or Mac, this step can be skipped. [↑](#footnote-ref-1)
2. A basic tutorial related to how GitHub works can be found here: <https://youtu.be/w3jLJU7DT5E> [↑](#footnote-ref-2)
3. This link requires permission to access the files and may change in the future depending on the owner of the repo. [↑](#footnote-ref-3)
4. We will be running all the Linux commands within the SHNSim folder. Be sure to extract the ZIP files to a folder instead of attempting to run the commands within the ZIP. [↑](#footnote-ref-4)
5. For Mac/Linux/Ubuntu, use the terminal application to run command lines. The “wsl” command does not need to be executed because it is used to start Windows Subsystem for Linux (WSL). [↑](#footnote-ref-5)
6. These steps should be executed every time the simulator’s code is modified. To run the simulation without compiling with makefile: Opening Xserver, changing the directory, running WSL, and then using “./output” is sufficient. [↑](#footnote-ref-6)