# Neovim + LazyVim + Python + vimtex on Ubuntu: Student Setup Guide

## Step 1: Install Prerequisites

1. Open a terminal and run:
   sudo apt update
   sudo apt install git curl unzip build-essential ripgrep fd-find
2. Also install LaTeX:
   sudo apt install texlive-full

## Step 2: Install Neovim (Latest Version)

1. Download and extract Neovim AppImage:
   curl -LO https://github.com/neovim/neovim/releases/latest/download/nvim.appimage
   chmod u+x nvim.appimage
   sudo mv nvim.appimage /usr/local/bin/nvim

## Step 3: Install LazyVim Starter

1. Backup any old config:
   mv ~/.config/nvim ~/.config/nvim.backup
2. Clone LazyVim starter template:
   git clone https://github.com/LazyVim/starter ~/.config/nvim
   cd ~/.config/nvim && rm -rf .git

## Step 4: Launch Neovim to Install Plugins

1. Run Neovim:
   nvim
2. LazyVim will auto-install plugins on first launch.
3. Restart Neovim after installation completes.

## Step 5: Add vimtex Plugin

1. Create a file: ~/.config/nvim/lua/plugins/vimtex.lua
2. Add the following:

```
return {
  'lervag/vimtex',
  ft = 'tex',
  config = function()
    vim.g.vimtex_view_method = 'zathura'
    vim.g.vimtex_compiler_method = 'latexmk'
  end
}
```

## Step 6: Install Python and LSP Support

1. Install Python and pip if not already installed:
   sudo apt install python3 python3-pip
2. Install pynvim and the Python LSP:
   pip3 install pynvim
   pip3 install 'python-lsp-server[all]'

## Step 7: Enable Python LSP in LazyVim

1. Create or edit: ~/.config/nvim/lua/lsp/config/pylsp.lua
2. Add:

```
return {
  settings = {},
}
```

## Final Test

- Open a .py or .tex file in Neovim
- For LaTeX: use \ll to compile with vimtex
- For Python: test LSP autocompletion and diagnostics