Vim + LaTeX: Setup Guide for Arch Linux

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1 Setting up of Arch Linux

First we begin with installation of the Arch Linux Distro which is the most popopular Distro, known for its simplicity.

- 1. First get the archlinux.iso from internet. Assuming you have a VMWare Fusion as your VM Provider, boot up the VM from this .iso file.
- 2. Now follow this guide on setting up ArchLinux: https://phoenixnap.com/kb/arch-linux-install.
- 3. **Note:** There appears to be some problem while setting up the locale en_IN.UTF-8 so it is recommended to use the locale en_IN.UTF-8, to check whether locale settings are correctly set up, use the locale command.
- 4. After Arch has been set up, we will install the GNOME Desktop Environment with a Display Manager. For this we follow the guide given at: https://phoenixnap.com/kb/arch-linux-gnome.
- 5. Note that, many basic packages need to be installed like sudo, git, etc., also it is recommended to make a new user which will be the main user by using su (your_username) and then giving it sudo privileges.

2 Setting up Vim and Vim-Plug

Now we wish to set up Vim and its plugins through the vim-plug Plugin Manager, we could also use Vundle or others, but this is the most efficient plugin manager so we shall go with it. To make use of clipboard copy-paste in Vim, we install gVim (GUI Vim). Again, from here on, we will be a primary user (we will go with the name 'sanju' for simplicity) with sudo privileges and not root.

1. First switch to the non-root user:

su - sanju

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2. Now install gVim:

```
sudo pacman -Ss gvim
sudo pacman -S gvim
```

Note: -Ss is used to search packages, and -S is used for installation.

3. Now install vim-plug using following:

```
curl -fLo /.vim/autoload/plug.vim -create-dirs \
https://raw.githubusercontent.com/junegunn/vim-plug/master/plug.vim
or just by Downloading https://raw.githubusercontent.com/junegunn/vim-plug/master/
plug.vim and putting it inside /.vim/autload.
```

4. Verify vim-plug Install by starting vim and using the command: :PlugInstall

If the command doesn't throw an error then vim-plug is correctly installed. Now we need to install TEX-Live Package which is the actual LATEX package.

3 Installing T_EX-Live Package

Now we wish to install LATEX on to our system. For this, we just need to use the following command: sudo pacman -S texlive-most

Depending on the internet speed, this will take some time. You can also add additional languages support to TEXby using:

```
sudo pacman -S texlive-lang
```

and then specifying the option numbers of the packages you wish to install.

4 Installing and configuring vim plugins

From now on, do NOT use vim as sudo vim as there are differences between the user and root vim configurations.

Before we can edit the Vim Configuration File which is the .vimrc file, we need to first grant the owenership of the configuration file to the non-root user by the command:

```
sudo chown sanju \sim/.vimrc
```

And now we can edit the configuration file without using sudo.

Now, we edit the .vimrc file by the following command:

```
vim \sim /.vimrc
```

Now, edit your .vimrc file to make it look like this:

call plug#begin()

Plug 'sirver/ultisnips'

let g:UltiSnipsExpandTrigger = '<tab>'

let g:UltiSnipsJumpForwardTrigger = '<tab>'

let g:UltiSnipsJumpBackwardTrigger = '<s-tab>'

let g:UltiSnipsSnippetDir=[\$HOME.'/.vim/UltiSnips']

```
Plug 'lervag/vimtex'
```

let g:tex_flavor='latex'

let g:vimtex_view_method='zathura'

let g:vimtex_quickfix_mode=0

Plug 'preservim/nerdtree'

Plug 'vim-airline/vim-airline'

Plug 'KeitaNakamura/tex-conceal.vim'

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```
set conceallevel=1
let g:tex_conceal='abdmg'
hi Conceal ctermbg=none
Plug 'dylanaraps/wal'
colorscheme wal
set background=dark
call plug#end()
:set nu
setlocal spell
set spelllang=en_us
"inoremap <C-l> <c-g>u<Esc>[s1z=']a<c-g>u
After setting the configuration file, we now install the plugins by:
vim
:PlugInstall
Now, we wait for sometime and after the plugins are successfully installed, we now proceed to install
our snippets.
```

5 Setting up snippets for TEX

Now comes the most important part, for which we went through the entire ordeal above. We create the snippets file by the following command:

 ${\tt vim} \; \sim /.{\tt vim/UltiSnips/tex.snippets}$

Now, set your desired snippets as you like. My tex.snippets file is available online.