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# 1. Tools

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## 1.1. iTerm2

I guess you are already using iTerm2. If you are not, start by installing it [iterm2.com](https://iterm2.com) and use that instead of terminal.

## 1.2. Homebrew

Also another tool that we will need in the journey is homebrew ([brew.sh](https://brew.sh)). If you don't already have it, just install it by:

```
/bin/bash -c "$(curl -fsSL
https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

after the installer is done, you need to execute a couple of lines to add it to your path (**replace with your current username** in the first one)

```
(echo; echo 'eval "$(/usr/local/bin/brew shellenv)') >>
/Users/szigeti/.zprofile

eval "$(/usr/local/bin/brew shellenv)"
```

## 1.3. K9S

The best CLI kubernetes explorer. Install it also with Homebrew:

```
brew install derailed/k9s/k9s
```

Documentation is [here](#)

## 1.4. Xcode (OPTIONAL - not initially needed)

A third tool to keep in consideration are Apple Xcode tools. Do:

```
sudo rm -rf /Library/Developer/CommandLineTools

sudo xcode-select --install
```

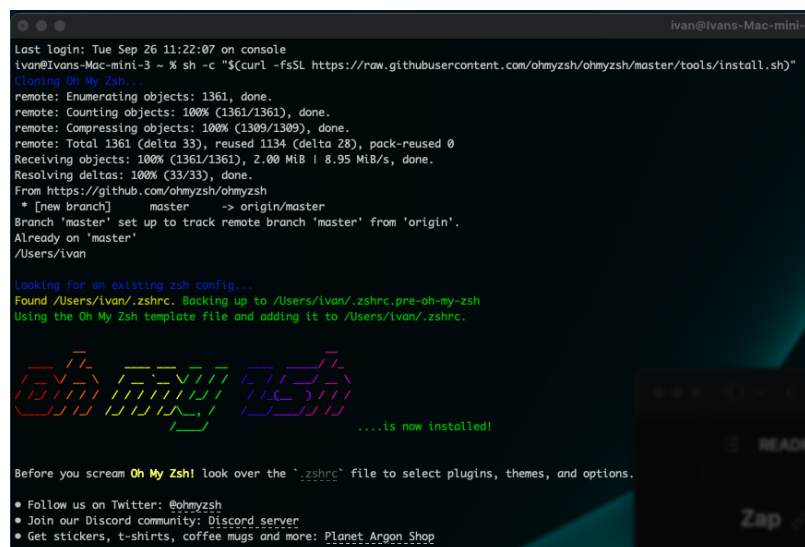
...and accept the license pop-up.

# 2. CLI enhancements

## 2.1. Framework

Next thing to consider is the installation of a framework. Here we chose [OhMyZsh](#). Execute the following:

```
sh -c "$(curl -fsSL
https://raw.githubusercontent.com/ohmyzsh/ohmyzsh/master/tools/install.sh)
"
```



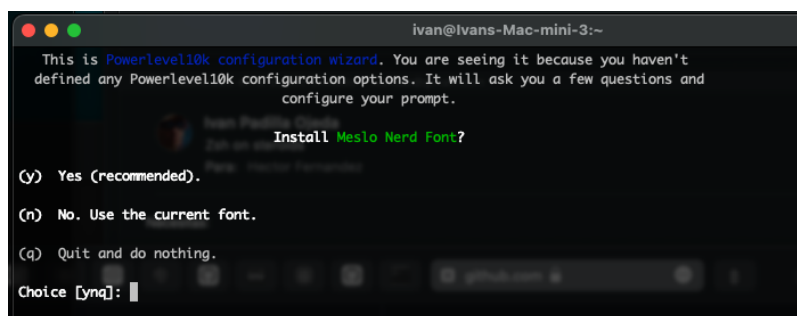
## 2.2. P10k

Now let's add some customization to the prompt with powerlevel10k [P10k](#). If you just run:

```
brew install powerlevel10k

echo "source $(brew --prefix)/share/powerlevel10k/powerlevel10k.zsh-
theme" >> ~/.zshrc
```

... and then close the terminal window and open a new one, and follow the on screen menu for customizing the prompt to match your likes. It will be important later on, to show the cluster and namespace in which you are working. You can always use defaults if you don't have a personal preference on something. Usually first line is the typical choice.



## 2.3. Plugins

Lets add some plugins to make typing easier. They are all [here](#), but there is a minimum set recommended.

You can enable the ones you need by editing the `~/.zshrc` file:

```
vim ~/.zshrc
```

Locate the plugin section, usually like this:

```
76 # Which plugins would you like to load? 20
77 # Standard plugins can be found in $ZSH/pl
78 # Custom plugins may be added to $ZSH_CUST
79 # Example format: plugins=(rails git textm
80 # Add wisely, as too many plugins slow dow
81 plugins=(git)
82
```

These are the ones I've enabled:

```
plugins=(git
        docker
        docker-compose
        kubectl
        zsh-autosuggestions
        zsh-syntax-highlighting
        zsh-navigation-tools
        copypath
        copyfile)
```

```
        copybuffer
    )
```

Most of them are already inside the plugin directory of your Oh-My-Zsh (`$HOME/.oh-my-zsh/plugins/`), but some of them need to be downloaded. I'll detail them bellow in a particular section for each.

Also, to make the autocompletion works correctly while using the Oh-My-Zsh framework, you need to add the following PATH modification before sourcing the Oh-My-Zsh, as per [here](#)

```
FPATH="$(brew --prefix)/share/zsh/site-functions:${FPATH}"
```

```
90     copyfile
91     copybuffer
92 )
93
94 FPATH="$(brew --prefix)/share/zsh-completions:$(brew --prefix)/share/zsh/site-functions:$FPATH"
95
96
97 source $ZSH/oh-my-zsh.sh
98
99 # User configuration
```

As a reference, this is my full `~/.zshrc` attached

### 2.3.1. Kubectl

Kubectl autocompletion. This [plugin](#) is already downloaded. You just need to enable it on the `~/.zshrc`

It gives you a nice set of alias that you can use to shorten your calls to 'kubectl' commands:

Alias	Command
kaf ...	-> kubectl apply -f ...
kgpo	-> kubectl get pods

... all the available aliases are listed [here](#)

### 2.3.2. zsh-autosuggestions

You need to download this [plugin](#) and also declare it in the plugin section of the `~/.zshrc`. Download it with:

```
git clone https://github.com/zsh-users/zsh-autosuggestions
${ZSH_CUSTOM:-~/.oh-my-zsh/custom}/plugins/zsh-autosuggestions
```

### 2.3.3. zsh-syntax-highlighting

Declare the [plugin](#) on your `~/.zshrc` and exec this also to download it:

```
git clone https://github.com/zsh-users/zsh-syntax-highlighting.git
${ZSH_CUSTOM:-~/.oh-my-zsh/custom}/plugins/zsh-syntax-highlighting
```

## 2.4. Other enhancements

### 2.4.1. kubecolor

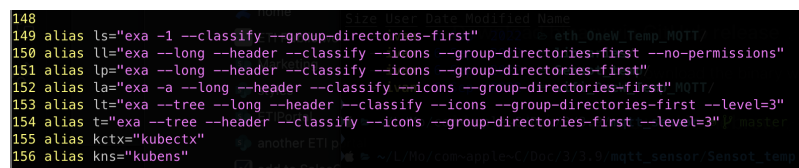
Install [this](#) tool with homebrew:

```
brew install hidetatz/tap/kubecolor
```

and add this at the end of your `.zshrc`

```
# get zsh complete kubectl
source <(kubectl completion zsh)
alias kubectl=kubecolor
# make completion work with kubecolor
compdef kubecolor=kubectl
```

I have several alias in my `~/.zshrc` that make my life easier:



```
148
149 alias ls="exa -l --classify --group-directories-first"
150 alias ll="exa --long --header --classify --icons --group-directories-first --no-permissions"
151 alias lp="exa --long --header --classify --icons --group-directories-first"
152 alias la="exa -a --long --header --classify --icons --group-directories-first"
153 alias lt="exa --tree --long --header --classify --icons --group-directories-first --level=3"
154 alias t="exa --tree --header --classify --icons --group-directories-first --level=3"
155 alias kctx="kubectl"
156 alias kns="kubens"
157
```

### 2.4.2. Autojump

Very useful [tool](#), that allows you to jump directly into the directory of your project just using its name.

```
brew install autojump
```

That also install a wrapper `j`, so I do very often things like `'j thisProject'`

### 2.4.3. Exa

Good replacement for 'ls', you can see the alias in the previous picture in my `~/.zshrc`. The tool can be found [here](#), but you can install it directly with homebrew with:

```
brew install exa
```

See some examples of the use [here](#). Actually when you add some alias, you don't have to do anything special for using it, it is called everytime you do an `'ls'`. These are my alias for it on my `~/ .zshrc` file:

```
la='exa -a --long --header --classify --icons --group-directories-first'
ll='exa --long --header --classify --icons --group-directories-first --no-permissions'
lp='exa --long --header --classify --icons --group-directories-first'
ls='exa -1 --classify --group-directories-first'
lt='exa --tree --long --header --classify --icons --group-directories-first --level=3'
t='exa --tree --header --classify --icons --group-directories-first --level=3'
```

#### 2.4.4. Context and Namespace alias

These two alias can also be added to the `~/ .zshrc` to allow easy change of cluster/namespace:

```
alias kx='f() { [ "$1" ] && kubectl config use-context $1 || kubectl config current-context ; } ; f'

alias kn='f() { [ "$1" ] && kubectl config set-context --current --namespace $1 || kubectl config view --minify | grep namespace | cut -d" " -f6 ; } ; f'
```

But you can also install `'kubectx'` and `'kubens'` tools described [here](#), which will do the same but also will display a list of the available choices for context and namespace:

```
brew install kubectx
```