

# From Zero to Docker

Training | 2019.05.16 | Mário Dagot, Jorge Dias

Docker is an open platform for developing, shipping, and running applications. Through the course of this training we will guide you to the most common feature and use cases of docker. Take this as an introduction and an opportunity to dive into the docker world.

## AGENDA

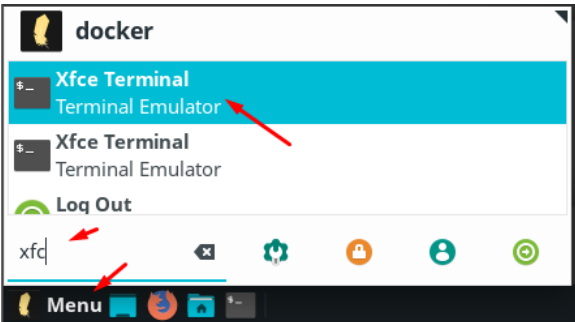
- **01 - Install Vim and Terminator and VSCode**
- 02 - Install Docker CE for Ubuntu
- 03 - Hello from Busybox
- 04 - Webapp with Docker
- 05a - Webapp with Docker - My first Dockerfile – Nginx
- 05b.1 - Webapp with Docker - My first Dockerfile - Dotnet Core
- 05b.2 - Webapp with Docker - My first Dockerfile MultiStage - Dotnet Core
- 06 - Save and Restore and Push to Docker Hub
- 07a - Webapp with database integration - My first network – SpringBoot
- 07b - Webapp with database integration - My first docker-compose – SpringBoot

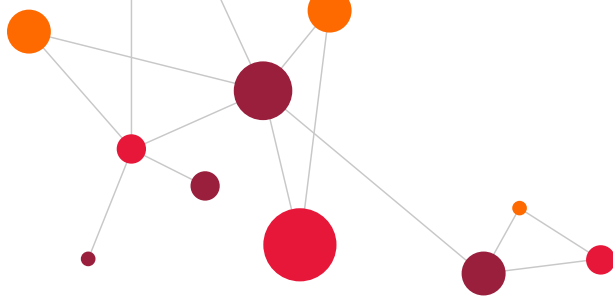
## 01 - INSTALL VIM AND TERMINATOR AND VSCODE

### Objective

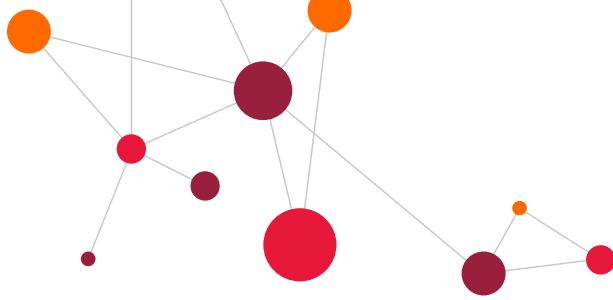
Install vim (Enhanced VI, a powerful linux editor), terminator (terminal application) and vs code (all-round development IDE) on a linux debian environment

### Step by Step

|  |   |
|--|---|
| Open a terminal windows                              |          |
| Install Vim and Terminator using apt package manager | <pre>docker ~\$ sudo apt install vim terminator -y</pre> <p>[sudo] password for docker:</p> |



|  |   |
|--|---|
|  | <p>Reading package lists... Done</p> <p>Building dependency tree</p> <p>Reading state information... Done</p> <p>The following packages were automatically installed and are no longer required:</p> <p>libjavascriptcoregtk-1.0-0 libwebkitgtk-1.0-0 mypaint-brushes</p> <p>Use 'sudo apt autoremove' to remove them.</p> <p>The following additional packages will be installed:</p> <p>gir1.2-keybinder-3.0 python-gi-cairo vim-runtime</p> <p>Suggested packages:</p> <p>ctags vim-doc vim-scripts</p> <p>The following NEW packages will be installed:</p> <p>gir1.2-keybinder-3.0 python-gi-cairo terminator vim vim-runtime</p> <p>0 upgraded, 5 newly installed, 0 to remove and 0 not upgraded.</p> <p>Need to get 6943 kB of archives.</p> <p>After this operation, 34,3 MB of additional disk space will be used.</p>  |
| Install Visual Studio Code using apt package manager | <pre>docker ~ ➔ wget -q https://packages.microsoft.com/keys/microsoft.asc -O-   sudo apt-key add -</pre> <p>OK</p><br><pre>docker ~ &gt; workspace ➔ sudo add-apt-repository "deb [arch=amd64] https://packages.microsoft.com/repos/vscode stable main"</pre> <p>Hit:1 http://ppa.launchpad.net/otto-kesselgulasch/gimp/ubuntu bionic InRelease</p> <p>Hit:2 http://archive.canonical.com/ubuntu bionic InRelease</p> <p>Hit:3 http://ppa.launchpad.net/teejee2008/ppa/ubuntu bionic InRelease</p> <p>Hit:4 http://us.archive.ubuntu.com/ubuntu bionic InRelease</p> <p>Get:5 https://packages.microsoft.com/repos/vscode stable InRelease [3181 B]</p> <p>Get:6 https://download.docker.com/linux/ubuntu bionic InRelease [64,4 kB]</p> <p>Get:7 http://us.archive.ubuntu.com/ubuntu bionic-security InRelease [88,7 kB]</p> <p>Get:8 https://packages.microsoft.com/repos/vscode stable/main amd64 Packages [115 kB]</p> <p>Hit:9 http://repo.linuxliteos.com/linuxlite diamond InRelease</p> <p>Get:10 http://us.archive.ubuntu.com/ubuntu bionic-updates InRelease [88,7 kB]</p> <p>Get:11 http://us.archive.ubuntu.com/ubuntu bionic-backports InRelease [74,6 kB]</p> <p>Get:12 http://us.archive.ubuntu.com/ubuntu bionic-security/main i386 Packages [253 kB]</p> <p>Get:13 http://us.archive.ubuntu.com/ubuntu bionic-security/main amd64 Packages [332 kB]</p> <p>Get:14 http://us.archive.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [242 kB]</p> |



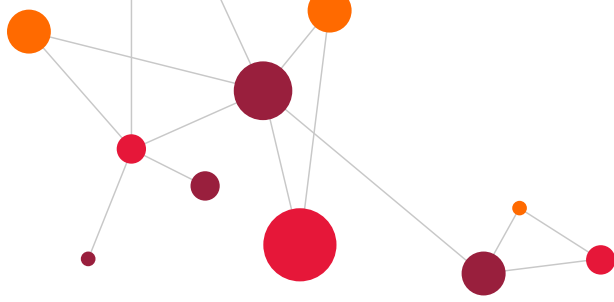
```
Get:15 http://us.archive.ubuntu.com/ubuntu bionic-security/universe i386 Packages
[238 kB]
Get:16 http://us.archive.ubuntu.com/ubuntu bionic-updates/main amd64 Packages [597
kB]
Get:17 http://us.archive.ubuntu.com/ubuntu bionic-updates/main i386 Packages [503
kB]
Get:18 http://us.archive.ubuntu.com/ubuntu bionic-updates/universe i386 Packages
[918 kB]
Get:19 http://us.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 Packages
[930 kB]
Get:20 http://us.archive.ubuntu.com/ubuntu bionic-updates/universe Translation-en
[270 kB]
Fetched 4720 kB in 16s (293 kB/s)
Reading package lists... Done
docker ~ > workspace sudo apt install code
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libjavascriptcoregtk-1.0-0 libwebkitgtk-1.0-0 mypaint-brushes
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  code
0 upgraded, 1 newly installed, 0 to remove and 4 not upgraded.
Need to get 48,7 MB of archives.
After this operation, 200 MB of additional disk space will be used.
Get:1 https://packages.microsoft.com/repos/vscode stable/main amd64 code amd64
1.33.1-1554971066 [48,7 MB]
Fetched 48,7 MB in 33s (1454 kB/s)
```

## Lessons learned

We learned how to install some linux applications using debian **apt package manager**.

## Revision History

| Version | Date       | Author                  | Description     |
|---------|------------|-------------------------|-----------------|
| 1.0     | 2019.05.01 | Mário Dagot, Jorge Dias | Initial Version |



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