

# Environment

## 1 Assignment 1, 3

Ubuntu 18.04 is needed to do assignments. The correct version can be downloaded [here](#). There are three ways to install an OS. Choose the method that is most convenient for you and follow the instruction

### 1.1 Native install

1. <https://ubuntu.com/tutorials/tutorial-install-ubuntu-desktop> instruction must be done for the native installation

### 1.2 Virtual Box

1. VirtualBox can be downloaded from this link <https://www.virtualbox.org/wiki/Downloads>
2. <https://www.wikihow.com/Install-VirtualBox> the installation VirtualBox instruction
3. [https://linuxhint.com/install\\_ubuntu\\_18-04\\_virtualbox/](https://linuxhint.com/install_ubuntu_18-04_virtualbox/) instruction for installing ubuntu 18.04 in a VirtualBox

### 1.3 Docker

1. <https://docs.docker.com/engine/install/> instructions for installing a docker
2. Start the image:

---

```
sudo docker run --rm -it ubuntu:18.04
```

---

Once the operating system is installed, you need to install the following packages.

---

```
apt update  
apt install clang
```

---

```
apt install vim
apt install telnet
```

---

or

```
sudo apt update
sudo apt install clang
sudo apt install vim
sudo apt install telnet
```

---

To check your environment and packages, create a main.c file with the following content:

```
#include <stdio.h>

int main()
{
    printf("Hello world!\n");
}
```

---

And the last step is to compile and run

```
clang main.c
./a.out
```

---

3. If we do not want to constantly run the image from scratch and install packages on it, we can save and run it using the following commands:

```
sudo docker run -it ubuntu:18.04 # create
sudo docker ps -a # list instances
sudo docker start -ai <image_hash> # start
```

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## 2 Assignment 2, 4\*

Java 11, IDE, Node JS needed to complete the next assignments

1. <https://adoptopenjdk.net/> download jdk for java
2. <https://www.jetbrains.com/idea/download/index.html> Community IDEA will be enough to do assignments
3. <https://nodejs.org/en/> link to download node JS