Ubuntu 18 (Jetpack 4.5.1) [Deprecated]

Packages dependencies for SLAMR01

```
$ sudo apt autoremove
$ sudo apt update
# if it ask? nvpmodel_t194.conf (keep default: press enter)
$ sudo apt upgrade

$ sudo apt install git cmake htop ccache python3-pip dnsutils libyaml-cpp-dev

# upgrade pip
$ sudo -H python3 -m pip install --upgrade pip

# install jetson-stat
$ sudo -H python3 -m pip install -U jetson-stats
```

- Since Python2 has been deprecated there is not need depend on Python2 for applications.

```
$ sudo update-alternatives --install /usr/bin/python python /usr/bin/python2.7 2

$ sudo update-alternatives --install /usr/bin/python python /usr/bin/python3.6 3

#check the config
update-alternatives --list python
update-alternatives --query python
```

Expanding Platform's disk space with SD card

This section is needed in order to build big packages from source.

- Reformat SD card as ext4 using GParted (SD card needs to use the file system ext4)

```
sudo apt install gparted
gparted
```

- Create partition as follow:

  Partition Format: ext4
  Partition Label: APP_DATA

- Exit gparted (ensure to generate partition).
- insert SD card to the Jetson and unmount it.

```
$ sudo umount /dev/mmcblk1p1
```

- make the directory for mounting the SD card

> *$ sudo mkdir -p /mnt/APP_DATA*

Example:

```
# remount file system
$ sudo mount -a

# SD card
$ mkdir /mnt/APP_DATA/user_workspace
$ cd ~
$ ln -s /mnt/APP_DATA/user_workspace user_workspace

sudo chown -R slamr01:slamr01 /mnt/APP_DATA/{folder in sd-card}
```

- Use fstab to assign a mounting location for the SD card :

> *$ sudo vi /etc/fstab*

Edit file by adding the following line (you

```
/dev/mmcblk1p1      /mnt/APP_DATA          ext4           defaults                                  0 2
```

- mount SD card using the following command:

> *$ sudo mount -a*

- Once the partition have been mounted to the desired directory, you can set its folders to be own by the user.

```
#
$ cd /mnt/APP_DATA

# set subfolder to be own by the user:
$ sudo chown -R slamr01:slamr01 ./

# now you should be able to create folder and show to be owned by the user.

$ mkdir programs workspace data
```

- Create symbolic links to SD card:

```
# from user space
$ cd ~

$ ln -s /mnt/${NAME_OF_DRIVE}/data data
$ ln -s /mnt/${NAME_OF_DRIVE}/programs programs
$ ln -s /mnt/${NAME_OF_DRIVE}/workspace workspace
```

- If you have installed ccache

```
# if folder has not been created
$ mkdir ~/.ccache
$ mkdir ~/workspace/.ccache
$ cd ~/.ccache
$ vi ccache.conf

# --- write in the file:
cache_dir=${HOME}/workspace/.ccache
# ------- save file

# check file
$ ccache --show-config
$ ccache --show-stats
```

- If using Visual Studio code from a remote machine, it creates a big folder that gets big over time.

Create a symbolic link to the location where you want vscode to install it's packages for remote access

```
$ cd ~
$ ln -s /home/slamr01/user_workspace/.vscode-server .vscode-server
```

- Reboot Jetson