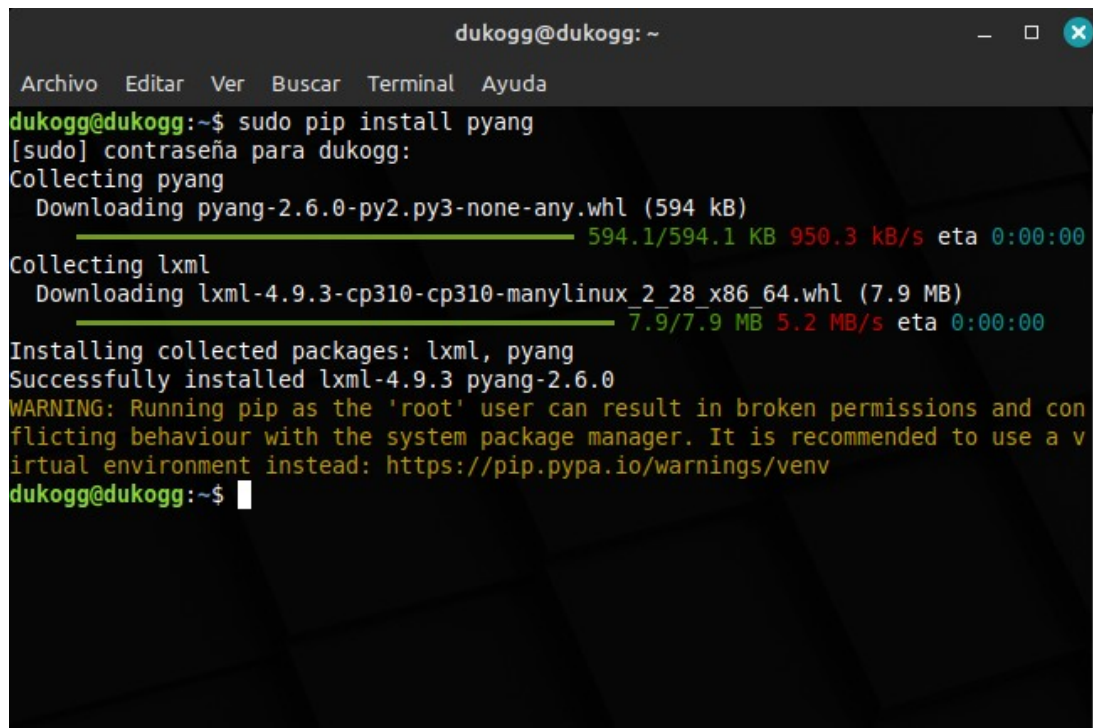
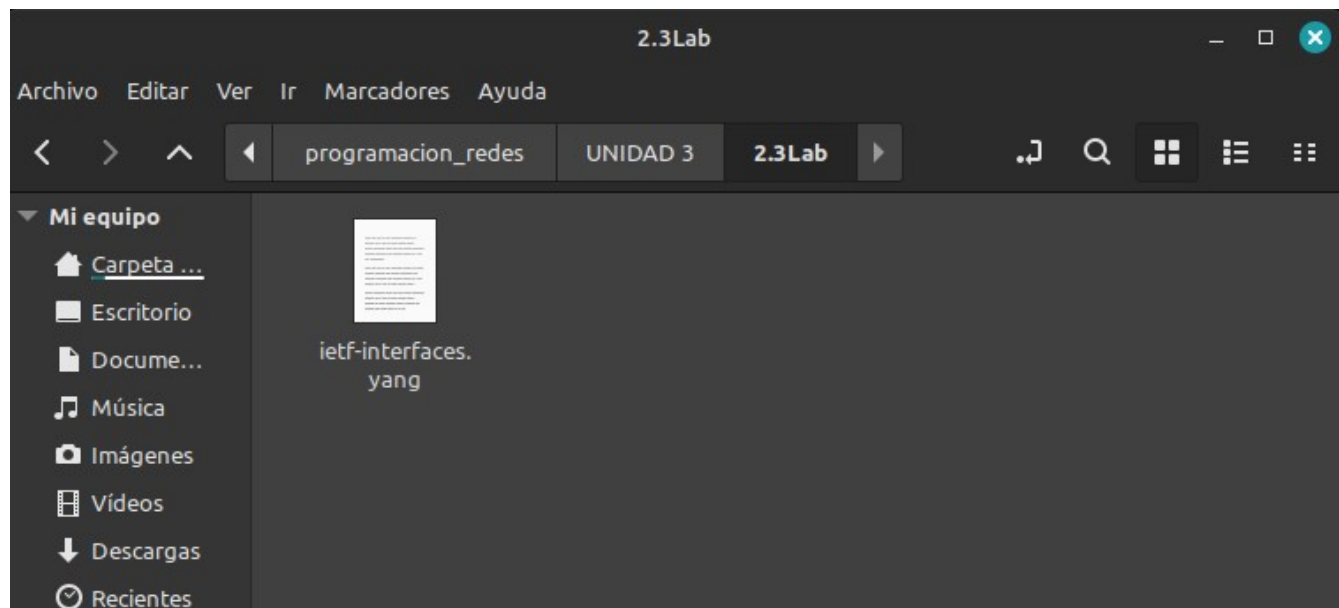


Instalar pyang



```
dukogg@dukogg: ~  
Archivo  Editar  Ver  Buscar  Terminal  Ayuda  
dukogg@dukogg:~$ sudo pip install pyang  
[sudo] contraseña para dukogg:  
Collecting pyang  
  Downloading pyang-2.6.0-py2.py3-none-any.whl (594 kB)  
    _____ 594.1/594.1 KB 950.3 kB/s eta 0:00:00  
Collecting lxml  
  Downloading lxml-4.9.3-cp310-cp310-manylinux_2_28_x86_64.whl (7.9 MB)  
    _____ 7.9/7.9 MB 5.2 MB/s eta 0:00:00  
Installing collected packages: lxml, pyang  
Successfully installed lxml-4.9.3 pyang-2.6.0  
WARNING: Running pip as the 'root' user can result in broken permissions and con  
flicting behaviour with the system package manager. It is recommended to use a v  
irtual environment instead: https://pip.pypa.io/warnings/venv  
dukogg@dukogg:~$
```

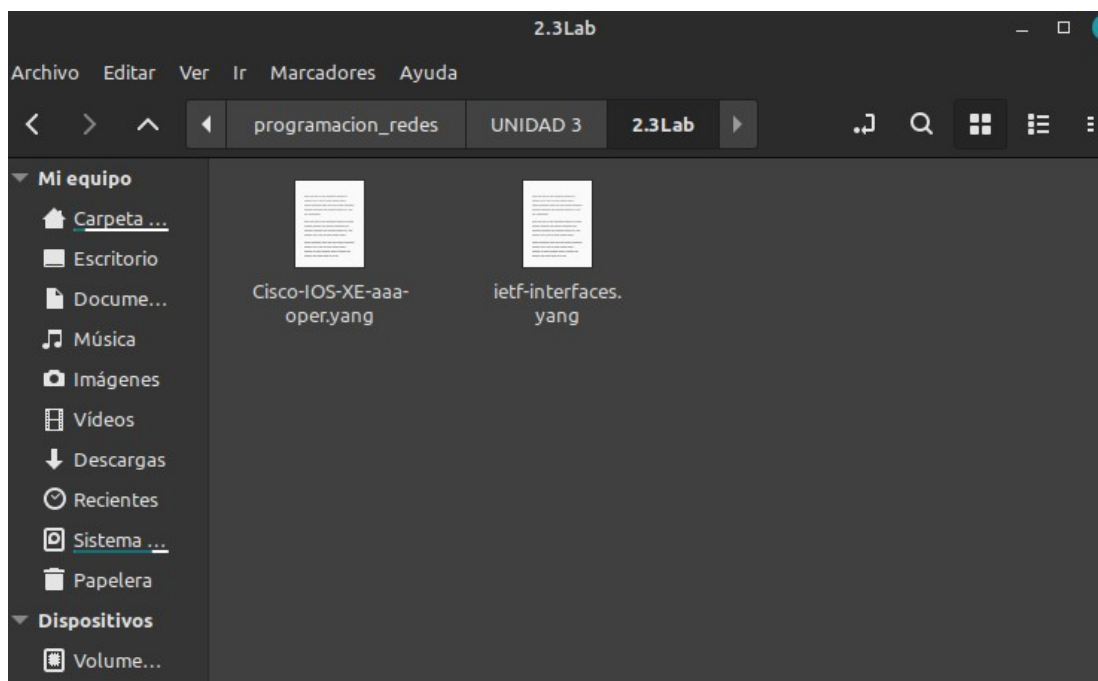
Descargar ietf'interfaces.yang de el ropositorio oficial de github



Convertir a lenguaje humano con pyang

```
dukogg@dukogg: ~/programacion_redes/UNIDAD 3/2.3Lab
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
dukogg@dukogg:~/programacion_redes/UNIDAD 3/2.3Lab$ pyang -f tree ietf-interfaces.yang
ietf-interfaces.yang:6: error: module "ietf-yang-types" not found in search path
module: ietf-interfaces
+--rw interfaces
|   +--rw interface* [name]
|   |   +--rw name                string
|   |   +--rw description?        string
|   |   +--rw type                identityref
|   |   +--rw enabled?            boolean
|   |   +--rw link-up-down-trap-enable? enumeration {if-mib}?
+--ro interfaces-state
|   +--ro interface* [name]
|   |   +--ro name                string
|   |   +--ro type                identityref
|   |   +--ro admin-status        enumeration {if-mib}?
|   |   +--ro oper-status         enumeration
|   |   +--ro last-change?        yang:date-and-time
|   |   +--ro if-index            int32 {if-mib}?
|   |   +--ro phys-address?       yang:phys-address
|   |   +--ro higher-layer-if*    interface-state-ref
|   |   +--ro lower-layer-if*    interface-state-ref
|   |   +--ro speed?              yang:gauge64
|   +--ro statistics
|   |   +--ro discontinuity-time  yang:date-and-time
|   |   +--ro in-octets?          yang:counter64
|   |   +--ro in-unicast-pkts?    yang:counter64
|   |   +--ro in-broadcast-pkts?  yang:counter64
|   |   +--ro in-multicast-pkts?  yang:counter64
|   |   +--ro in-discards?        yang:counter32
|   |   +--ro in-errors?          yang:counter32
|   |   +--ro in-unknown-protos?  yang:counter32
|   |   +--ro out-octets?         yang:counter64
|   |   +--ro out-unicast-pkts?    yang:counter64
|   |   +--ro out-broadcast-pkts?  yang:counter64
|   |   +--ro out-multicast-pkts?  yang:counter64
|   |   +--ro out-discards?       yang:counter32
|   |   +--ro out-errors?         yang:counter32
dukogg@dukogg:~/programacion_redes/UNIDAD 3/2.3Lab$
```

Descargar otro archivo



- 1) Are there any “read only” operation data in the `Cisco-IOS-XE-cdp.yang` model? Si, el archivo contiene lineas en modo solo lectura
- 2) Is there any other YANG model that includes operational CDP data? Si hay mas archivos yang en el repositorio