RASPBERRY PI SSH

CS95003 - Applied Robotics Lab

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What is SSH?

- Secure Shell is a cryptographic network protocol for secure data communication, remote command-line login, remote command execution, and other secure network services between two networked computers.
- We will use a SSH client to connect to the Raspberry Pi remotely over a Local Area Network (LAN)

Software and configurations

- Raspberry Pi
  - No additional software is required, but we need to activate SSH service
- Windows
  - Putty: Free SSH and telnet client
  - Xming:

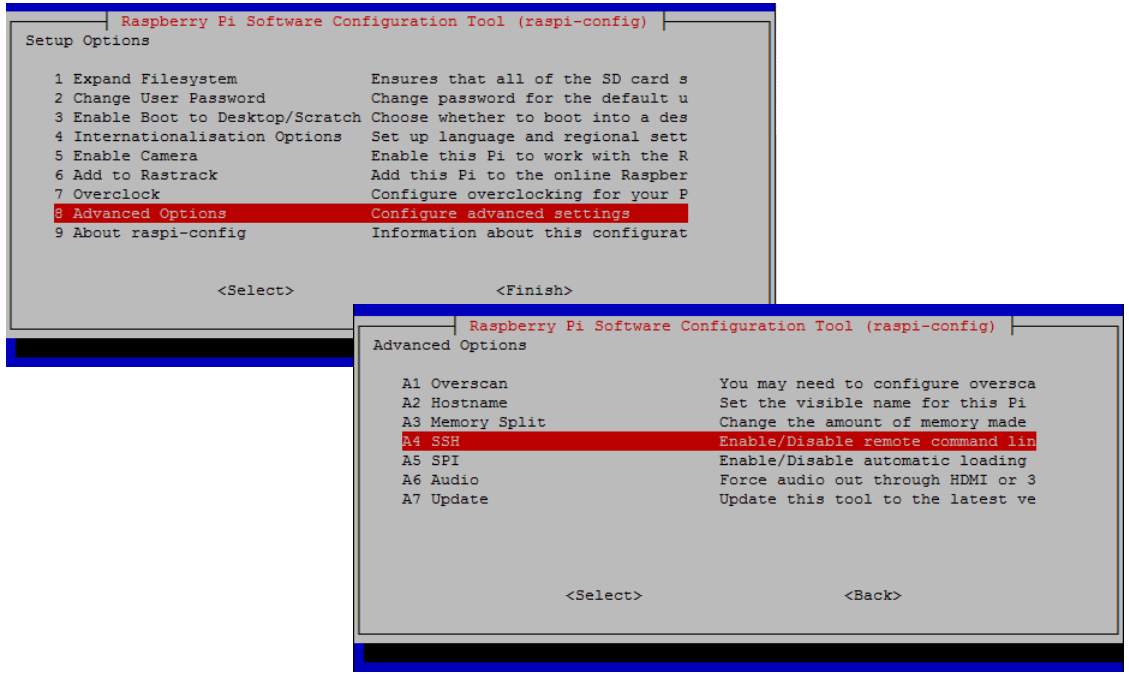
SSH ON THE PI

How to connect to the RPi

- First on a the linux shell write:

```
pi@raspberrypi ~ $ sudo raspi-config
```

- On the screen select:
  - Advanced Options >> SSH >> Enable
- Restart your Pi and login again.

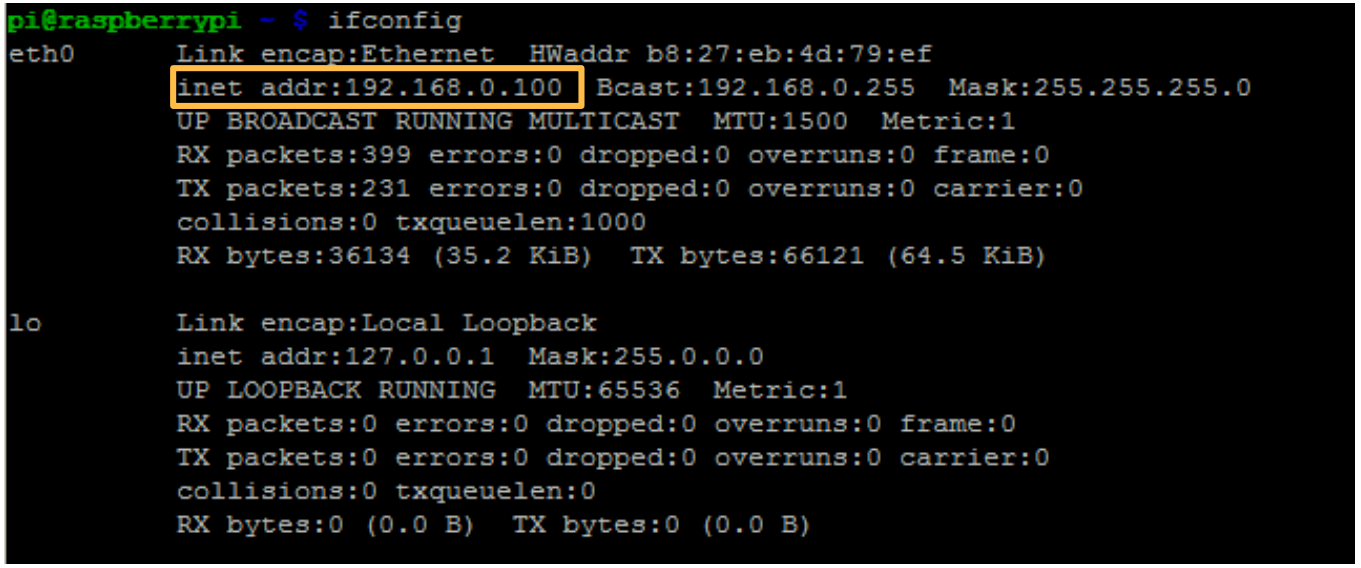


IP Address

- Now we need to get the actual Raspberry Pi IP address.
- Type:

```
pi@raspberrypi ~ $ ifconfig
```

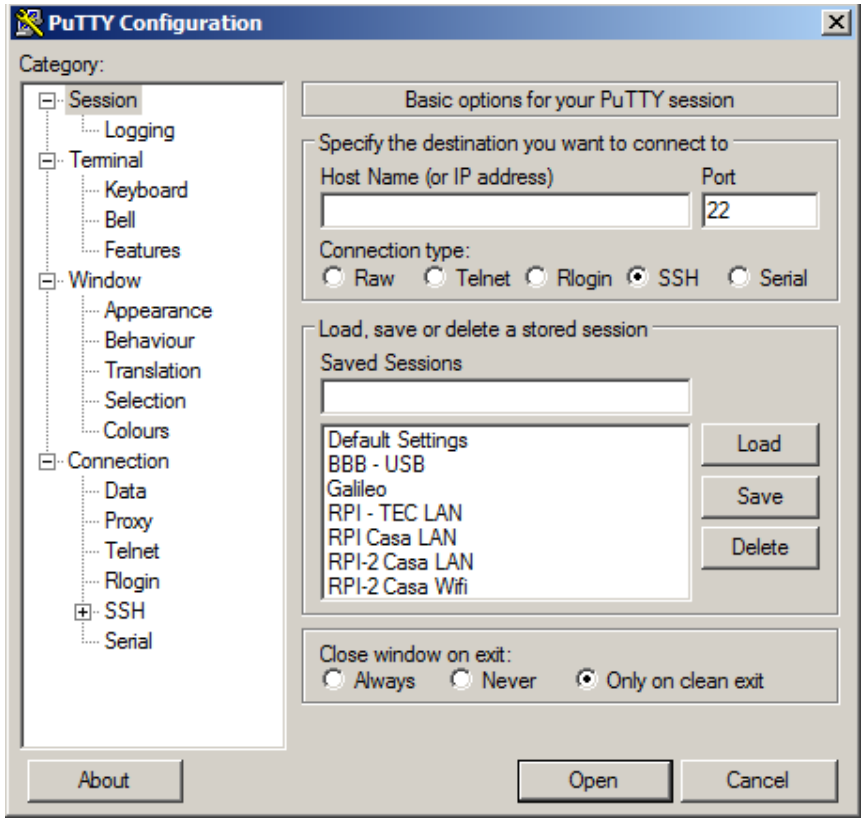
- A list of networks will appear, look at etho and save the IP Address.



SSH ON WINDOWS

SSH Client

- Open Putty

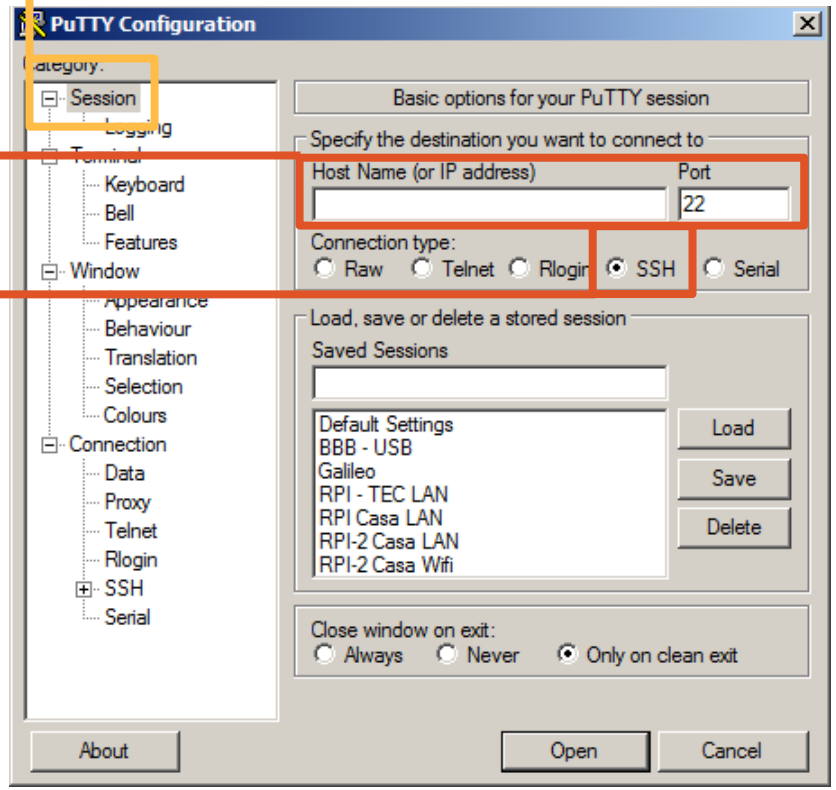


Configure connection

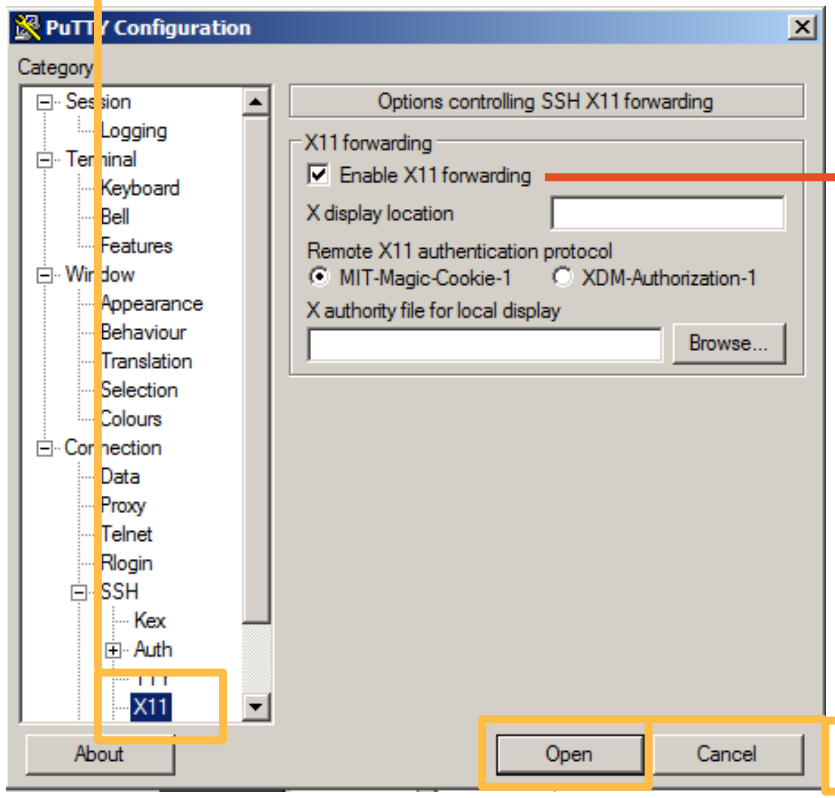
First select Session

Write IP address of your Pi and leave port number to 22

Make sure "SSH" is selected



Second in X11 under SSH

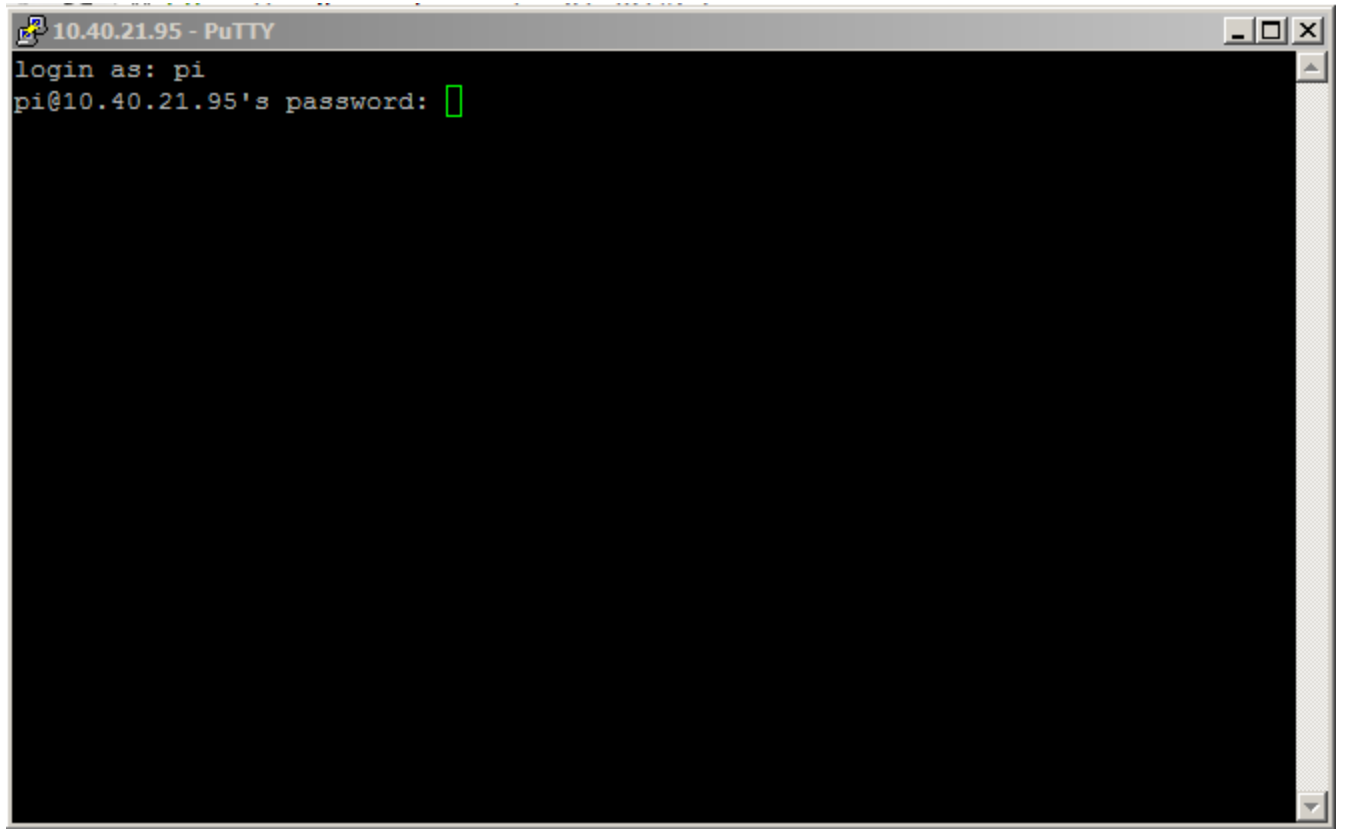


Select "Enable X11 forwarding"

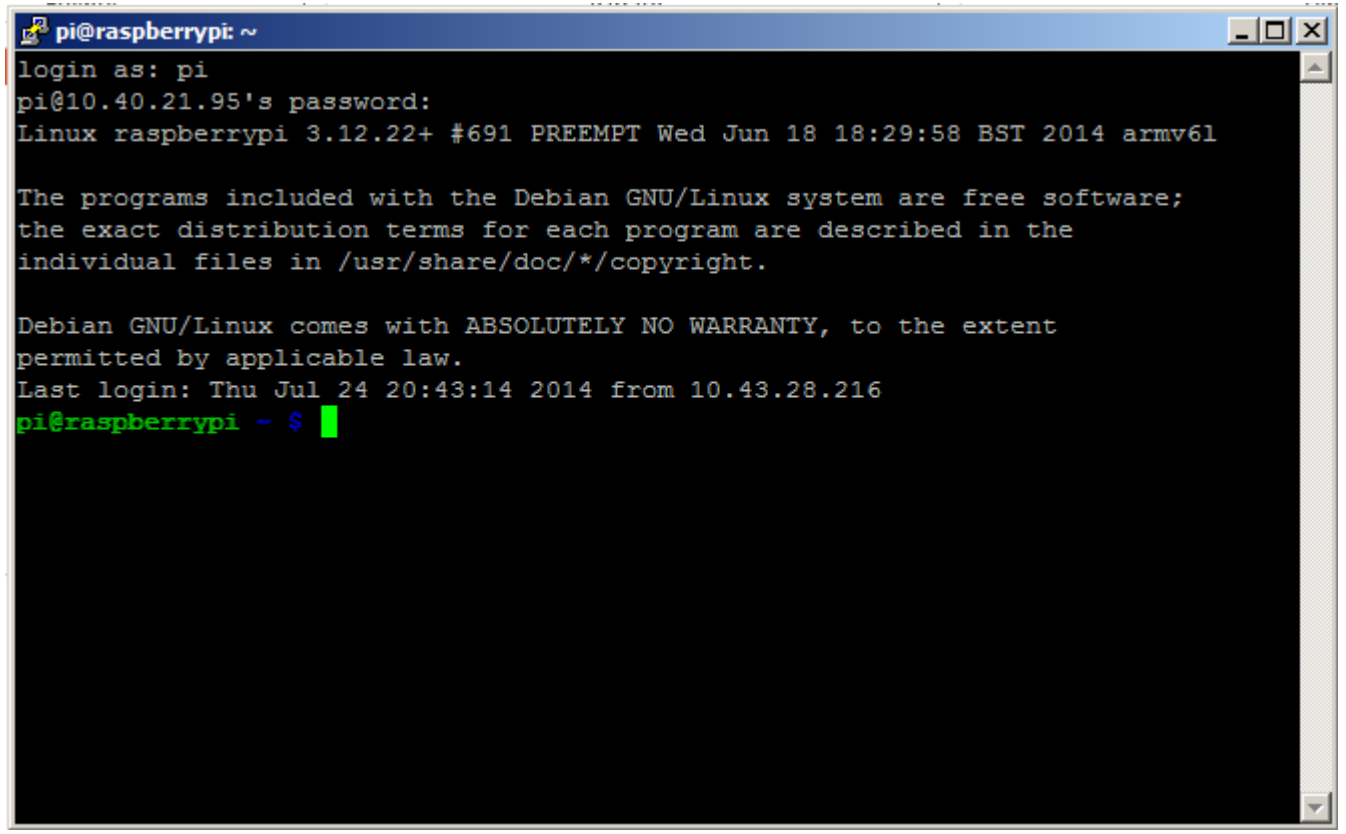
Click "Open"

Login…

- Username: pi
- Password: raspberry



Terminal


pi@raspberrypi: ~
login as: pi
pi@10.40.21.95's password:
Linux raspberrypi 3.12.22+ #691 PREEMPT Wed Jun 18 18:29:58 BST 2014 armv6l
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Thu Jul 24 20:43:14 2014 from 10.43.28.216
pi@raspberrypi ~ $

SSH ON UNIX TYPE OS

SSH Client

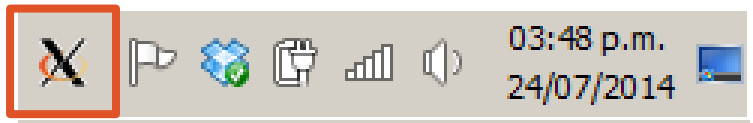
- Open the terminal
- Type:

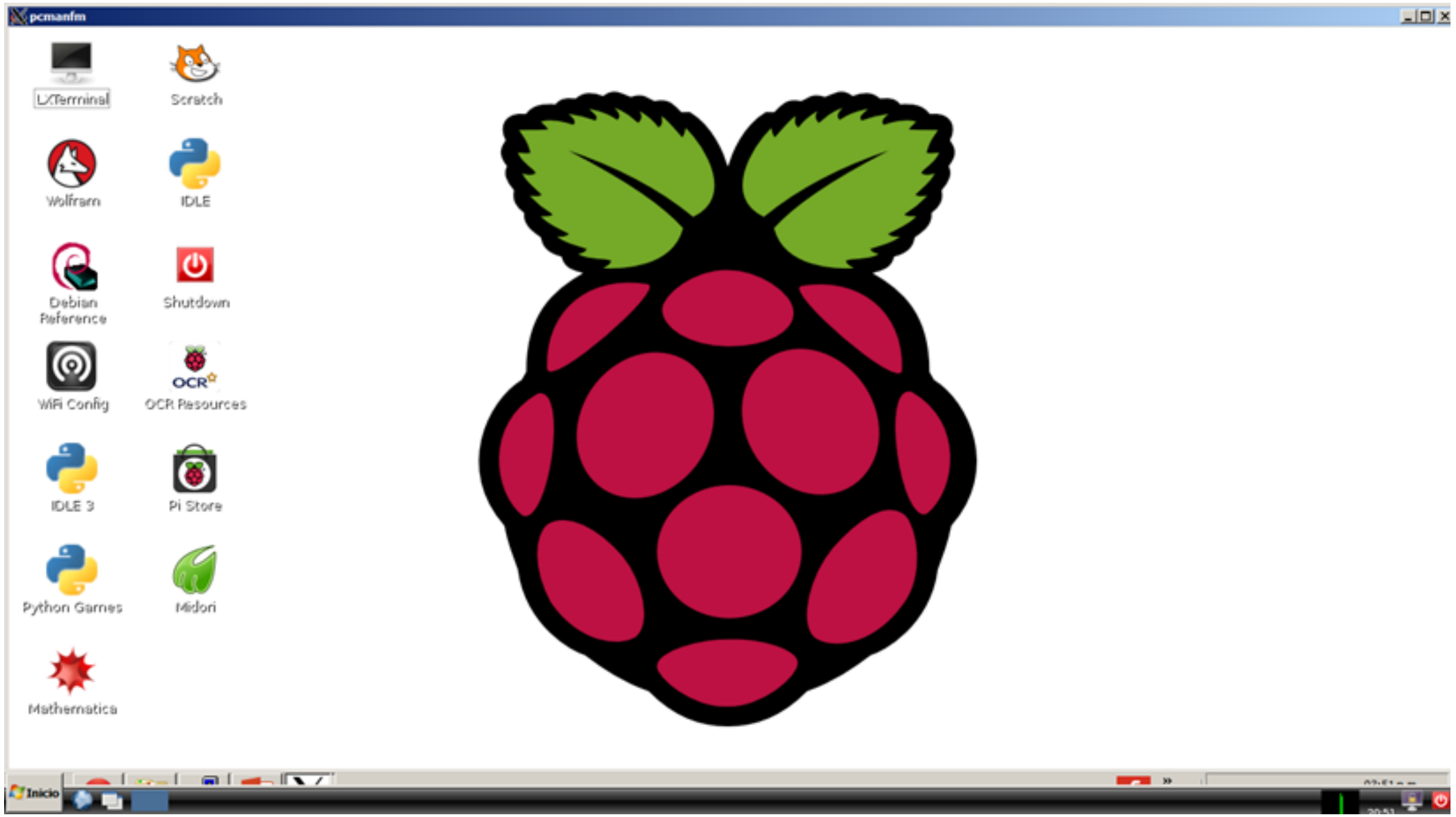
```
pi@raspberrypi ~ $ ssh pi@10.40.30.23
```

Graphic mode

- In windows open Xming Server
- On the Pi run:

```
pi@raspberrypi ~ $ startlxde
```




pcmanfm
LXTerminal
Scratch
Wolfram
IDLE
Debian Reference
Shutdown
WiFi Config
OCR Resources
IDLE 3
Pi Store
Python Games
Midori
Mathematica
Inicio