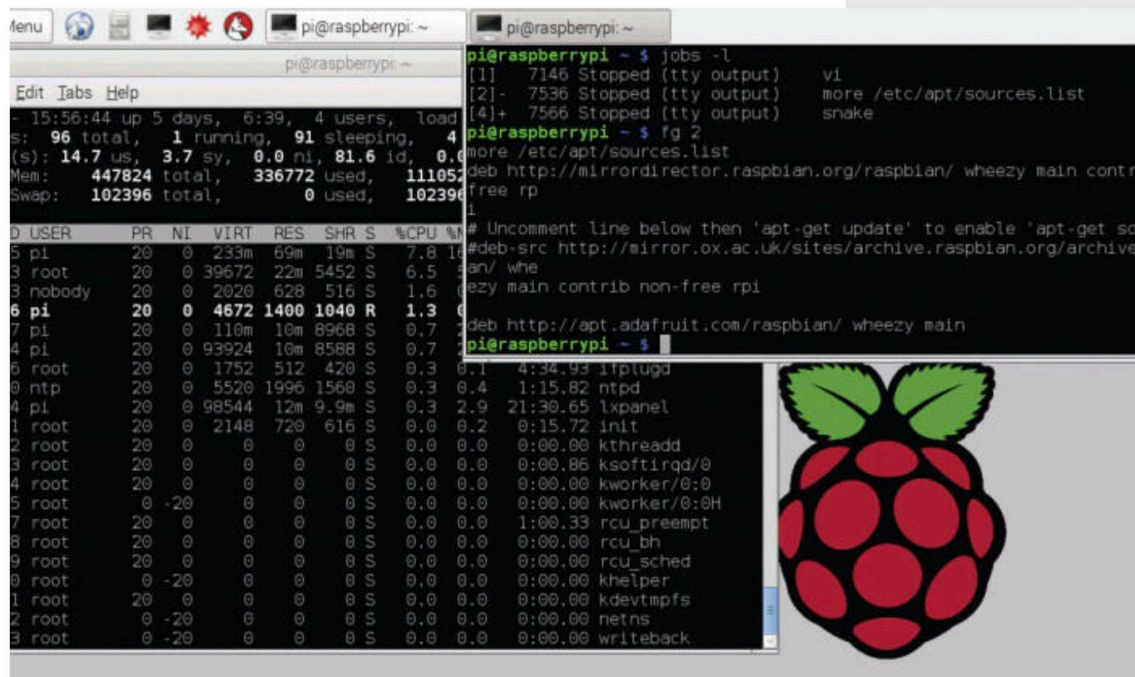


# REPORT (S103): Raspberry Pi Installation and Configuration

IUT ORSAY

01/18/2023 to 01/26/2024

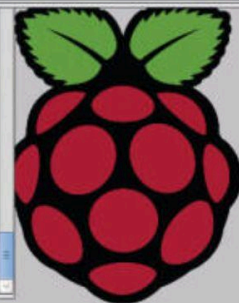


```

pi@raspberrypi: ~
$ cat /etc/passwd
pi:x:1000:1000::/home/pi:/bin/bash
root:x:0:0::/root:/bin/bash
daemon:x:1:1::/usr/sbin:/bin/sh
nobody:x:65534:65534::/nonexistent:/bin/sh

pi@raspberrypi: ~
$ free -h
total        used        free      shared  buff/cache   available
Mem:  447824k total,  336772k used,  111052k free,  102396k shared,  102396k buff/cache
Swap:  0k total,  0k used,  0k free,  0k shared,  0k buff/cache

pi@raspberrypi: ~
$ top
top - 15:56:44 up 5 days, 6:39, 4 users, load average: 0.00, 0.01, 0.05
  PID TID          PR NI  VIRT  RES  SHR S %CPU  %MEM    time+  what
  1    1          20  0    23m   69m  19m S   7.8   1.6   0:00.00 systemd
  2    2          20  0    39k    0k   0k S   0.0   0.0   0:00.00 kthreadd
  3    3          20  0    2020  628  516 S   1.6   0.1   0:00.00 ksoftirqd/0
  4    4          20  0    2020  628  516 S   1.6   0.1   0:00.00 kworker/0:0
  5    5          20  0    2020  628  516 S   1.6   0.1   0:00.00 kworker/0:0H
  6    6          20  0    4672 1400 1040 R   1.3   0.3   0:00.00 bash
  7    7          20  0    110m  10m  8968 S   0.7   2.2   0:00.00 rcu_preempt
  8    8          20  0    93924 10m  8588 S   0.7   2.2   0:00.00 rcu_bh
  9    9          20  0    1752  512  420 S   0.3   0.1   0:00.00 rcu_sched
 10   10          20  0    5520 1996 1560 S   0.3   0.4   0:00.00 khelper
 11   11          20  0    98544 12m  9.9m S   0.3   2.9   0:00.00 kdevtmpfs
 12   12          20  0    2148  720  616 S   0.0   0.2   0:00.00 netns
 13   13          20  0    2148  720  616 S   0.0   0.2   0:00.00 writeback
 14   14          20  0    2148  720  616 S   0.0   0.2   0:00.00 init
 15   15          20  0    2148  720  616 S   0.0   0.2   0:00.00 kthreadd
 16   16          20  0    2148  720  616 S   0.0   0.2   0:00.00 ksoftirqd/0
 17   17          20  0    2148  720  616 S   0.0   0.2   0:00.00 kworker/0:0
 18   18          20  0    2148  720  616 S   0.0   0.2   0:00.00 kworker/0:0H
 19   19          20  0    2148  720  616 S   0.0   0.2   0:00.00 rcu_preempt
 20   20          20  0    2148  720  616 S   0.0   0.2   0:00.00 rcu_bh
 21   21          20  0    2148  720  616 S   0.0   0.2   0:00.00 rcu_sched
 22   22          20  0    2148  720  616 S   0.0   0.2   0:00.00 khelper
 23   23          20  0    2148  720  616 S   0.0   0.2   0:00.00 kdevtmpfs
 24   24          20  0    2148  720  616 S   0.0   0.2   0:00.00 netns
 25   25          20  0    2148  720  616 S   0.0   0.2   0:00.00 writeback
  
```



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# Summary

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## Introduction

Purpose

Team Approach

## Hardware Requirements and Setup

Operation system installation

basic system Administration (sysOP)

Insight and challenges

Conclusion

## Result

## Conclusion

# Introduction

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## Purpose

This report aims to provide a step-by-step guide for installing and configuring a Raspberry Pi, allowing users to configure successfully. The report is written by Sirine Laouer, Ali Ahmadi and Lucie Castelli. It encompasses a systematic approach to the installation and configuration process, ensuring clarity, accuracy and practicality.

## Team Approach

With this structured and collaborative approach, we aim to provide a valuable tool for those looking to get started with the Raspberry Pi, allowing them to confidently navigate the installation and configuration process and unlock the full potential of this versatile technology .



# Hardware Requirements and Setup

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Here is the group configuration:

- Ali: The Raspberry configuration process contains several steps:
  - You need the required hardware (SD card, Raspberry PI, power supply, keyboard, mouse, screen and cables). Then you have to prepare the SD card, download the Raspberry, power it on, connect then access the desktop
- Sirine: We asked for help with issues like installing mariadb

## • Section 1: Installing the operating system

- Lucie: We have gone through the process of downloading and installing the Raspberry PI operating system on an SD card.
- Ali: First of all we configured the date so that our orders could be marketed, we then wanted to download mariadb but we could not due to a technical problem which was later resolved then we started to create the base of data but not short of time we could not finish.
- Sirine: We had difficulty knowing which command to do to download mariadb, and following commands for updates, problems persisted.

## • Section 2: Basic System Administration (SysOP)

- Lucie: We had to create a student profile which was quite simple to do.
- Sirine: Discuss the steps involved in updating the Raspberry Pi software and troubleshoot any potential issues.

## • Section 3: Prospects and challenges

- Lucie: This project was complicated for us because we had several problems, so the challenge was to resolve them with the help of the teachers.

- Ali: Learn the commands well, understand them
- Sirine: The project was complicated to understand at the beginning but I had to follow the steps

## Result

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We were unable to finish the project because we had a problem that delayed us. Our results are limited to the appearance of our first name in a text file, we configured the database but not the ssh connection.

## Conclusion

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- This project allowed us to learn a lot about the raspberry, how it works, certain commands to be able to configure a database in the raspberry. Working in a group allowed us to give advice and know how to change certain things.