Raspberry Pi
Unit 9: LAMP
Installing a LAMP Stack
Setup

ssh pi@192.168.1.17

ssh pi@270x.is-a-geek.net
Setup

Raspbian

Wifi Router

ssh server

?
Setup

Wi-Fi Router

- Raspbian
  - ssh server
  - Apache Server
  - HTML

Diagram showing the setup with Wi-Fi router connecting to Raspbian, ssh server, Apache Server, and HTML.
Setup

Raspbian

- ssh server
- apache
- php

Wifi Router

Diagram shows a Raspbian system connected to a Wi-Fi router, with components such as an ssh server, apache, and php.
Setup

Raspbian

- ssh server
- apache
- php
- database
  MySQL
Setup

Wifi Router

Raspbian

Wordpress

ssh server

apache

php

data base

MySQL

D. Thiebaut, Computer Science, Smith College
You said "Patchy?"

- In an April 2000 interview, **Brian Behlendorf**, one of the creators of Apache said:

  The name literally came out of the blue. I wish I could say that it was something fantastic, but it was out of the blue. I put it on a page and then a few months later when this project started, I pointed people to this page and said: "Hey, what do you think of that idea?" ... Someone said they liked the name and that it was a really good pun. And I was like, "A pun? What do you mean?" He said, "Well, we're building a server out of a bunch of software patches, right? **So it's a patchy Web server.**" I went, "Oh, all right." ... When I thought of the name, no. It just sort of connotated: "Take no prisoners. Be kind of aggressive and kick some ass."

[https://en.wikipedia.org/wiki/Apache_HTTP_Server](https://en.wikipedia.org/wiki/Apache_HTTP_Server)
Install a LAMP Stack on your RPi

- **Warning**: this will take a significant amount of time (~30 minutes)
Wordpress

- Wordpress is a blogging platform
- Most widely used blogging environment
- Lab assignment for today:
  - install Wordpress on your RPi
  - create a blog post
LOGS
Log files are a set of records that Linux maintains for the administrators to keep track of important events. They contain messages about the server, including the kernel, services and applications running on it. Linux provides a centralized repository of log files that can be located under the /var/log directory.

https://www.eurovps.com/blog/important-linux-log-files-you-must-be-monitoring/
• **/var/log/syslog**
  Shows general messages and info regarding the system. Basically a data log of all activity throughout the global system. Know that everything that happens on Debian systems go in **Syslog**.

• **/var/log/auth.log**
  Keeps authentication logs for both successful or **failed logins**, and authentication processes.

• **/var/log/boot.log**
  start-up messages and **boot** info.

• **/var/log/kern**
  keeps in **Kernel** logs and warning info. Also useful to fix problems with custom kernels.

• **/var/log/dmesg**
  a repository for device driver messages. Use **dmesg** command to see messages in this file.

[https://www.eurovps.com/blog/important-linux-log-files-you-must-be-monitoring/](https://www.eurovps.com/blog/important-linux-log-files-you-must-be-monitoring/)
• `/var/log/faillog` records info on **failed logins**. Hence, handy for examining potential security breaches like login credential hacks and brute-force attacks.

• `/var/log/daemon.log` keeps track of running **background** services.

• `/var/log/btmp` keeps a note of all **failed login** attempts.

[https://www.eurovps.com/blog/important-linux-log-files-you-must-be-monitoring/](https://www.eurovps.com/blog/important-linux-log-files-you-must-be-monitoring/)
• **apache2/error.log**  
  keeps track of **errors** experienced by http server

• **apache2/access.log**  
  keeps track of **accesses** to Web pages on http server

• **mysql/error.log**  
  keeps track of all **errors** experienced by the mysql server

[https://www.eurovps.com/blog/important-linux-log-files-you-must-be-monitoring/](https://www.eurovps.com/blog/important-linux-log-files-you-must-be-monitoring/)
On your RPi, in the Terminal window, run command:

```
尾 -f /var/log/auth.log
```

In a separate Terminal or Putty window, **ssh** to your RPi using fake credentials.