

## Harjoitus 7

### Tehtävä1

```
sudo apt upgrade
```

```
sudo apt autoremove
```

```
Reading package lists... Done
```

```
Building dependency tree
```

```
Reading state information... Done
```

```
The following packages will be REMOVED:
```

```
libfwupdplugin1 libxmlb1
```

```
0 upgraded, 0 newly installed, 2 to remove and 0 not upgraded.
```

```
After this operation, 628 kB disk space will be freed.
```

```
Do you want to continue? [Y/n] y
```

```
(Reading database ... 108968 files and directories currently installed.)
```

```
Removing libfwupdplugin1:amd64 (1.5.11-0ubuntu1~20.04.2) ...
```

```
Removing libxmlb1:amd64 (0.1.15-2ubuntu1~20.04.1) ...
```

```
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
```

### Tehtävä2

```
apt show figlet
```

```
Installed-Size: 752 kB
```

```
Version: 2.2.5-3
```

```
Description: Make large character ASCII banners out of ordinary text
```

```
FIGlet (Frank, Ian & Glenn's Letters) is a program that creates large characters out of ordinary screen characters.
```

## Tehtävä3

```
sudo apt install figlet
```

```
Reading package lists... Done
```

```
Building dependency tree
```

```
Reading state information... Done
```

```
The following NEW packages will be installed:
```

```
  figlet
```

```
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
```

```
Need to get 133 kB of archives.
```

```
After this operation, 752 kB of additional disk space will be used.
```

```
Get:1 http://fi.archive.ubuntu.com/ubuntu focal/universe amd64 figlet amd64 2.2.5-3 [133 kB]
```

```
Fetch:133 kB in 0s (2674 kB/s)
```

```
Selecting previously unselected package figlet.
```

```
(Reading database ... 108957 files and directories currently installed.)
```

```
Preparing to unpack .../figlet_2.2.5-3_amd64.deb ...
```

```
Unpacking figlet (2.2.5-3) ...
```

```
Setting up figlet (2.2.5-3) ...
```

```
update-alternatives: using /usr/bin/figlet-figlet to provide /usr/bin/figlet (figlet) in auto mode
```

```
Processing triggers for man-db (2.9.1-1) ...
```

```
FIGLET(6)                                     Games Manual                                FIGLET(6)

NAME
  FIGlet - display large characters made up of ordinary screen characters

SYNOPSIS
  figlet [ -cklnoprstvxDELNRSWX ] [ -d fontdirectory ]
         [ -f fontfile ] [ -m layoutmode ]
         [ -w outputwidth ] [ -C controlfile ]
         [ -l infocode ] [ message ]

DESCRIPTION
  FIGlet prints its input using large characters (called ``FIGcharacters'') made up of ordinary screen characters (called ``sub-characters''). FIGlet output is generally reminiscent of the sort of ``signatures'' many people like to put at the end of e-mail and UseNet messages. It is also reminiscent of the output of some banner programs, although it is oriented normally, not sideways.

  FIGlet can print in a variety of fonts, both left-to-right and right-to-left, with adjacent FIGcharacters kerned and ``smushed'' together in various ways. FIGlet fonts are stored in separate files, which can be identified by the suffix ``.flf''. In systems with UTF-8 support FIGlet may also support T0llet ``.tlf'' fonts. Most FIGlet font files will be stored in FIGlet's default font directory.

  FIGlet can also use ``control files'', which tell it to map certain input characters to certain other characters, similar to the Unix tr command. Control files can be identified by the suffix ``.flc''. Most FIGlet control files will be stored in FIGlet's default font directory.

Manual page figlet(6) line 1 (press h for help or q to quit)
```

## Tehtävä4

```
sudo apt purge figlet
```

```
Reading package lists... Done
```

```
Building dependency tree
```

```
Reading state information... Done
```

```
The following packages will be REMOVED:
```

```
  figlet*
```

```
0 upgraded, 0 newly installed, 1 to remove and 0 not upgraded.
```

```
After this operation, 752 kB disk space will be freed.
```

```
Do you want to continue? [Y/n] y
```

```
(Reading database ... 109036 files and directories currently installed.)
```

```
Removing figlet (2.2.5-3) ...
```

```
Processing triggers for man-db (2.9.1-1) ...
```

```
(Reading database ... 108960 files and directories currently installed.)
```

```
Purging configuration files for figlet (2.2.5-3) ...
```

```
→
```

```
sudo apt remove figlet
```

Reading package lists... Done

Building dependency tree

Reading state information... Done

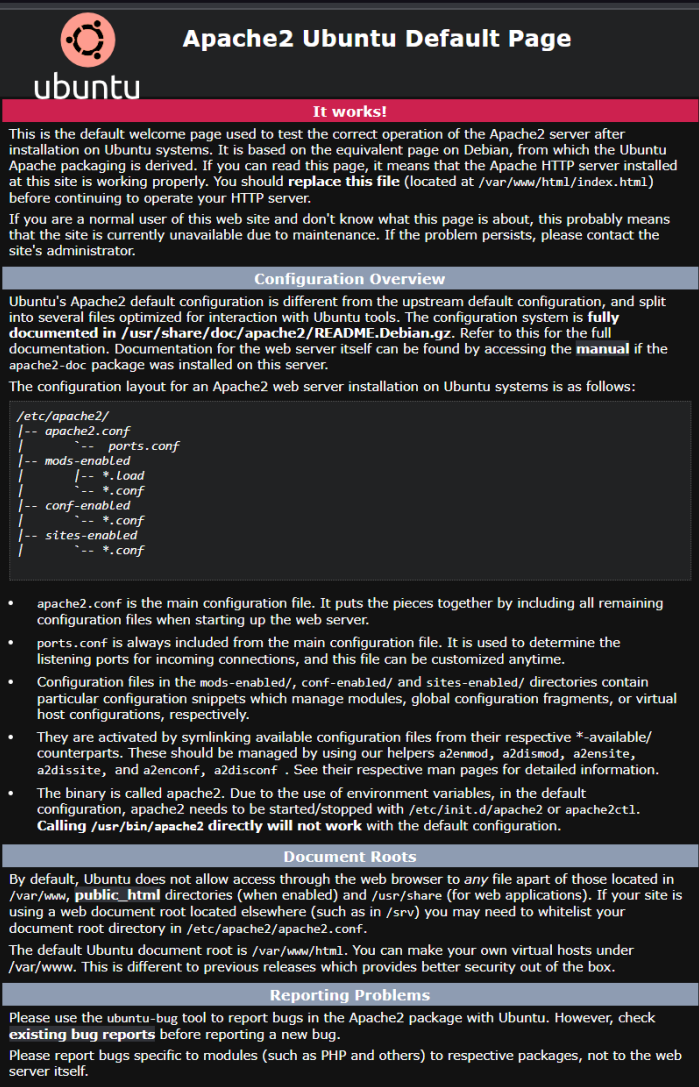
**Package 'figlet' is not installed, so not removed**

0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.

## Tehtävä5

sudo apt install apache2

172.21.7.169



### Apache2 Ubuntu Default Page

**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

#### Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/  
|-- apache2.conf  
|   |-- ports.conf  
|-- mods-enabled  
|   |-- *.Load  
|   |-- *.conf  
|-- conf-enabled  
|   |-- *.conf  
|-- sites-enabled  
|   |-- *.conf  
|
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/` counterparts. These should be managed by using our helpers `a2enmod`, `a2dismod`, `a2ensite`, `a2dissite`, and `a2enconf`, `a2disconf`. See their respective man pages for detailed information.
- The binary is called `apache2`. Due to the use of environment variables, in the default configuration, `apache2` needs to be started/stopped with `/etc/init.d/apache2` or `apache2ctl`. **Calling `/usr/bin/apache2` directly will not work** with the default configuration.

#### Document Roots

By default, Ubuntu does not allow access through the web browser to *any* file apart of those located in `/var/www`, **public\_html** directories (when enabled) and `/usr/share` (for web applications). If your site is using a web document root located elsewhere (such as in `/srv`) you may need to whitelist your document root directory in `/etc/apache2/apache2.conf`.

The default Ubuntu document root is `/var/www/html`. You can make your own virtual hosts under `/var/www`. This is different to previous releases which provides better security out of the box.

#### Reporting Problems

Please use the `ubuntu-bug` tool to report bugs in the Apache2 package with Ubuntu. However, check **existing bug reports** before reporting a new bug.

Please report bugs specific to modules (such as PHP and others) to respective packages, not to the web server itself.

## Tehtävä6

sudo nano index.html

```
GNU nano 4.8 index.html
<!DOCTYPE html>
<html lang="fi">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Miikan apache2</title>
</head>
<body style="margin: 0 auto ; font-size: 300px; ">
  <h1>päevää</h1>
</body>
</html>
```



## Tehtävä7

Cd /usr/local/src

Sudo wget <http://student.labranet.jamk.fi/~ara/ftp/Python-3.7.4.tgz>

Sudo tar -xzf Python-3.7.4.tgz

```
user@AE9947-Ubuntu: /usr/local/src
```

```
user@AE9947-Ubuntu: /usr/local/src$ ls  
Python-3.7.4 Python-3.7.4.tgz  
user@AE9947-Ubuntu: /usr/local/src$ █
```

### Python3

```
user@AE9947-Ubuntu: /usr/local/src$ python3  
Python 3.8.10 (default, May 26 2023, 14:05:08)  
[GCC 9.4.0] on linux  
Type "help", "copyright", "credits" or "license" for more information.  
>>> 5+21  
26  
>>> █
```