

# Administration Manual

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# 1 General Hints

## 1.1 Open Terminal

press [Ctrl](or [Strg])+[Alt]+[T] at the same time

## 1.2 Use Command in Terminal

1.2.1 mark line in this file

1.2.2 select “Copy” after right mouse click

1.2.3 paste in Terminal with right mouse click again

**remark:** commands that begin with “sudo” usually require your PC password to be executed (see *1.7 Default Passwords*)

## 1.3 Open Settings

Settings are available in upper right corner of screen (click small triangle, then tool symbol)

## 1.4 Ensure Internet Connection

➔ you should never do that with the server during working hours since you will disconnect the server from the facility network and the staff will not be able to access the software

1.4.1 open Settings (see *1.3 Open Settings*)

1.4.2 open “Wi-Fi”

1.4.3 open an internet hotspot with your phone

1.4.4 connect to internet hotspot

1.4.5 enter password if needed

## 1.5 Caution with USB Drives

Be careful to use your USB drive only on PCs that you are very certain that they are not infected with viruses (in fact you should use the USB drives you use on the server for that and only that PC)

## 1.6 Find a File Described with a Path

(example: /opt/lampp/htdocs/facility/defaults/DEFAULTS.php)

1.6.1 go to “Files” (on the left side of the screen in the list of applications)

1.6.2 select “Other Locations”

1.6.3 click on “Computer”

1.6.4 follow the path (folders are separated by /)

## 1.7 Default Passwords and IPs

Where?	password	IP
facility software (OPD password, consulting password, maternity password, laboratory password, dispensary password and store password)	authorised	-
server PC	firstaid- server	192.168.178.10
user PC	firstaid	192.168.178.xx
Wi-Fi	firstaid	-

If any of the passwords has been changed and you do not remember the correct password, please contact the creator of the software (see 5 *Contact*)

## 2 Set up Server

### 2.1 Install Operating System

- 2.1.1 before following the next steps, please back up all data, that you might want to keep, on an external drive, they will be deleted from your PC
- 2.1.2 when PC is shut down insert USB drive “Ubuntu 18.04” (see *1.5 Caution with USB Drives*)
- 2.1.3 press the power button and interrupt normal startup with [Enter]
- 2.1.4 open boot menu with [F12]
- 2.1.5 select USB drive “Ubuntu 18.04” with arrow keys, confirm with [Enter]
- 2.1.6 select “install Ubuntu”
- 2.1.7 follow the set up menu step by step

**Attention:** before you select a keyboard language, check if you have an English or German keyboard (German keyboard has [Ö], [Ä], [Ü]))

- ➔ please set your username as “administrator”, the device name as “clinic-server” and the password as “firstaid-server” to match this manual
- ➔ if you choose to use a different password, please inform the creator of the software to have a backup in case you forget it (see *5 Contact*)

### 2.2 Install Teamviewer

- ➔ an alternative instruction in case this does not work can be found online:  
<https://vitux.com/how-to-install-teamviewer-on-ubuntu/>
- 2.2.1 open Terminal (see *1.1 Open Terminal*)
- 2.2.2 enter the commands (see *1.2 Use Command in Terminal*)
  - 1) `wget`  
`https://download.teamviewer.com/download/linux/teamviewer_amd64.deb`
  - 2) `sudo apt install ./teamviewer_amd64.deb`
  - 3) `teamviewer`(you have to accept the second command with “Y”, when asked)
- 2.2.3 select “Accept Licence Agreement” in the opened window

### 2.3 Use Teamviewer to Enable External Control of the PC

- ➔ in case of any difficulty with your server, contact the creator of this application (see *5 Contact*), she will probably use Teamviewer to take control of the PC and try to solve the issue
- 2.3.1 open Teamviewer (by clicking on the 9-dot symbol in the lower left corner of the screen and searching for “Teamviewer”)

- 2.3.2 send the 10 digit long ID and the password to the person that you want to have access on your PC

## 2.4 Prevent PC from Shutting Down, when Lid is Closed

- 2.4.1 open Terminal (see *1.1 Open Terminal*)
- 2.4.2 enter the command (see *1.2 Use Command in Terminal*)  

```
sudo nano /etc/systemd/logind.conf
```
- 2.4.3 in opened file search for “Handle Lid Switch” by pressing [Ctrl] (or [Strg]) + [W] and typing “Handle Lid Switch”
- 2.4.4 delete “#” at the beginning of the line
- 2.4.5 delete “suspend”, write “ignore” instead
- 2.4.6 save and close the file by pressing [Ctrl] (or [Strg]) + [S] and then [Ctrl] (or [Strg]) + [X]

## 2.5 Turn off Automatic Screen Lock

- 2.5.1 open Settings (see *1.3 Open Settings*)
- 2.5.2 go to “Privacy”
- 2.5.3 click on “Screen Lock” and turn “Automatic Screen Lock” off

## 2.6 Set up LAMPP to Enable the Software

- 2.6.1 ensure internet connection (see *1.4 Ensure Internet Connection*)
- 2.6.2 open Terminal (see *1.1 Open Terminal*)
- 2.6.3 enter the command (see *1.2 Use Command in Terminal*)  

```
sudo wget https://www.apachefriends.org/xampp-files/7.2.2/xampp-linux-x64-7.2.2-0-installer.run
```
- 2.6.4 when asked, confirm with “Y”
- 2.6.5 enter the commands (see *1.2 Use Command in Terminal*)
  - 1) 

```
sudo chmod +x xampp-linux-x64-7.2.2-0-installer.run
```
  - 2) 

```
sudo ./xampp-linux-x64-7.2.2-0-installer.run
```(this can take a few minutes)

## 2.7 Start LAMPP Automatically on Reboot to Enable Software Automatically

- 2.7.1 open Terminal (see *1.1 Open Terminal*)
- 2.7.2 enter the command (see *1.2 Use Command in Terminal*)  

```
sudo crontab -e
```

- 2.7.3 confirm with [Enter] twice
- 2.7.4 go to the end of the page with the arrow keys
- 2.7.5 add the following line

```
@reboot /opt/lampp/lampp start
```
- 2.7.6 save and close the file by pressing [Ctrl] (or [Strg]) + [S] and then [Ctrl] (or [Strg]) + [X]

## 2.8 Copy Facility Software on Server

- 2.8.1 insert USB-Drive "FILES" (see *1.5 Caution with USB Drives*)
- 2.8.2 open Terminal (see *1.1 Open Terminal*)
- 2.8.3 enter the commands (see *1.2 Use Command in Terminal*)
  - 1) `sudo rm -r /opt/lampp/htdocs`
  - 2) `sudo cp -fR /media/administrator/CLINIC/htdocs /opt/lampp`

## 2.9 Set up Automatic Backups

- 2.9.1 open Terminal (see *1.1 Open Terminal*)
- 2.9.2 insert USB drive and create a folder called "Backups" on it, if you want to use the default folder described in the backup script
- 2.9.3 also create a folder called "Backups" on your Desktop
- 2.9.4 enter the commands (see *1.2 Use Command in Terminal*)
  - 1) `sudo chmod +x /opt/lampp/htdocs/backup/autobackup.sh`
  - 2) `sudo nano /opt/lampp/htdocs/backup/autobackup.sh`
- 2.9.5 in the opened file you can enter how long you want to keep the backups and where you want to store the backup files  
(to maintain that, replace "your\_USB" with the name of your USB drive)
- 2.9.6 save and close the file by pressing [Ctrl] (or [Strg]) + [S] and then [Ctrl] (or [Strg]) + [X]
- 2.9.7 Enter the command (see *1.2 Use Command in Terminal*)

```
sudo crontab -e
```
- 2.9.8 confirm with [Enter] twice
- 2.9.9 go to the end of the page with the arrow keys
- 2.9.10 add the following line

```
0 ? * * * /opt/lamp/autobackup.sh
```



- 2.9.11 replace the question mark with the time(s) at which you want to back up your files (if you want the backup script to be run several times a day, separate them by comma)

Example:

```
0 12,17 * * * /opt/lamp/autobackup.sh
```

- ➔ This command is creating a backup at 12pm and at 5pm every day

- 2.9.12 save and close the file by pressing [Ctrl] (or [Strg]) + [S] and then [Ctrl] (or [Strg]) + [X]

## 2.10 Enable Database Reset

- 2.10.1 open Terminal (see 1.1 *Open Terminal*)

- 2.10.2 enter the command (see 1.2 *Use Command in Terminal*)

```
sudo nano /opt/lampp/etc/httpd.conf
```

- 2.10.3 in opened file search for “User/Group” by pressing [Ctrl] (or [Strg]) + [W] and typing “User/Group”

- 2.10.4 It will mark these words in the script. Some lines below that you will find the following code:

```
User daemon
Group daemon
```

replace it by

```
User administrator
Group administrator
```

- 2.10.5 save and close the file by pressing [Ctrl] (or [Strg]) + [S] and then [Ctrl] (or [Strg]) + [X]

## 2.11 Personalize your Facility’s Data (for letter head etc.)

- 2.11.1 open Terminal (see 1.1 *Open Terminal*)

- 2.11.2 enter the command (see 1.2 *Use Command in Terminal*)

```
sudo nano
/opt/lampp/htdocs/facility/defaults/DEFAULTS.php
```

- 2.11.3 enter the data as instructed in the opened file

- 2.11.4 save and close the file by pressing [Ctrl] (or [Strg]) + [S] and then [Ctrl] (or [Strg]) + [X]

## 2.12 Set up Network

check in your router’s manual how to set up the network:

you need to set a name and a password for the Wi-Fi

- ➔ please use “firstaid” as password and “clinic-wifi” as name to match the manuals

- ➔ if you choose to use a different password, please inform the creator of the software to have a backup in case you forget it (see 5 *Contact*)

## 2.13 Give Static IP Address and Connect to Router

- ➔ the connection to the router is necessary to enable the networking
- ➔ the static IP address enables the activation of PCs for certain departments and is necessary for the creation of the software URL

2.13.1 open Settings (see *1.3 Open Settings*)

2.13.2 go to “Wi-Fi”

2.13.3 select the name of the Wi-Fi, that you want to connect to

2.13.4 enter the Wi-Fi password (see *1.7 Default Passwords and IP*)

2.13.5 click on the tool symbol behind the name of the router

2.13.6 go to “IPv4” (at the top of the window)

2.13.7 select “Manual” instead of “Automatical”

2.13.8 below “Addresses” write the IP address in the “Address” field (see *1.7 Default Passwords and IP*)

2.13.9 in the same line enter “255.255.255.0” as “Netmask”

2.13.10 click “Apply” in the upper right corner of the window

2.13.11 connect again with the network by clicking on your router’s name again

## 2.14 Inquire IP address

2.14.1 open Settings (see *1.3 Open Settings*)

2.14.2 go to “Wi-Fi”

2.14.3 search for the name of the Wi-Fi which is providing the network for the facility and click on the tool symbol at the end of that line

2.14.4 in the opened overview you can check for the “IPv4 Address”

## 3 Database Administration

### 3.1 Create Empty Database in which to Upload the Database

- 3.1.1 open Firefox
- 3.1.2 open the following web page:  
*localhost/phpmyadmin*
- 3.1.3 click on “New” (the first point on the list on the left side)
- 3.1.4 enter “facility” as the database name and go to “create”

### 3.2 Restore Data from Database Backup

- 3.2.1 open Firefox
  - 3.2.2 open the following web page:  
*localhost/phpmyadmin*
  - 3.2.3 click on “facility” in the list of databases on the left side of the screen
  - 3.2.4 go to “Import” tab at the top of the page
  - 3.2.5 click on “Browse”
  - 3.2.6 select the backup script you want to restore the data from in the opened file manager
  - 3.2.7 confirm with “Open”
  - 3.2.8 click on “Go”
- ➔ please consider that the backup will replace all current data in the database

### 3.3 Create Database User for Software to Enable Access

- 3.3.1 open Firefox
- 3.3.2 open the following web page:  
*localhost/phpmyadmin*
- 3.3.3 click on “facility” in the list of databases on the left side of the screen
- 3.3.4 select the “Privileges” tab at the top of the page
- 3.3.5 click on “Add user account” at the end of the page
- 3.3.6 select the host name “Local” from the drop down menu
- 3.3.7 type the password “1234” and confirm it in “Re-type” by entering it again
- 3.3.8 scroll down to “Global privileges” and select the checkbox “Data”
- 3.3.9 click on “Go” at the end of the page

## 3.4 Reset Database

- 3.4.1 open Firefox
- 3.4.2 open the following web page:  
*localhost/facility*
- 3.4.3 go to “Settings”
- 3.4.4 select “Consulting” from the list of departments
- 3.4.5 enter the consulting password, if required (see 1.7 *Default Passwords and IPs*)
- 3.4.6 click on “Reset Database”
- 3.4.7 confirm your intention to reset the database (a backup of the old database will be saved in /opt/lampp/htdocs/backup/backup\_before\_reset.sql (see 1.6 *Find a File Described with a Path*))
- 3.4.8 enter the consulting password again (see 1.7 *Default Passwords and IPs*)

## 3.5 Do Backup Manually

- 3.5.1 open Firefox
- 3.5.2 open the following web page:  
*localhost/phpmyadmin*
- 3.5.3 click on “facility” in the list of databases on the left side of the screen
- 3.5.4 go to the “Export” tab at the top of the page
- 3.5.5 click on “Go”
- 3.5.6 the backup can now be found in /home/administrator/Downloads/facility.sql (see 1.6 *Find a File Described with a Path*)

## 3.6 Install Updates

Please contact the creator of the software in case you require any updates (see 5 *Contact*)

If an update is ready for upload you will only have to start Teamviewer (see 2.3 *Use Teamviewer to Enable External Control of the PC*) and she will install the update for you.

## **4 Set Up User PC**

### **4.1 Install Operating System**

*see 2.1 Install Operating System*

### **4.2 Give static IP Address and Connect to Router**

*see 0*

*Give Static IP Address and Connect to Router*

- ➔ check in the user manual in *8.6 Enable Access for a Certain PC to a Certain Department* how to activate a certain PC for a certain department

### **4.3 Inquire IP address**

see *2.14 Inquire IP address*

- ➔ check in the user manual in *8.6 Enable Access for a Certain PC to a Certain Department* how to activate a certain PC for a certain department

### **4.4 Start Firefox Automatically**

- 4.4.1 open the program manager in the lower left corner
- 4.4.2 search for “Startup Applications” and click on it
- 4.4.3 select “Add” and enter “firefox” in all three input fields
- 4.4.4 submit with “Add”

### **4.5 Set up Start Page in Firefox to Open Facility Software Automatically**

- 4.5.1 open Firefox
- 4.5.2 open the following web page:  
*“enter\_the\_IP\_of\_the\_server\_here”/facility*  
(to check the IP follow the steps describes in *2.14 Inquire IP address*)
- 4.5.3 open the page you want to set up as start page (e.g. OPD – search patients)
- 4.5.4 click on the 3 line symbol in the upper right corner
- 4.5.5 select “Preferences” and click on “Home”
- 4.5.6 go to “Home Page and New Windows” and select “Current Pages”

### **4.6 Turn off Automatic Screen Lock**

see *2.5 Turn off Automatic Screen Lock*

## 4.7 Enable Automatic Log-In

- 4.7.1 open Settings (see 1.3 *Open Settings*)
- 4.7.2 go to “Details” and then “Users”
- 4.7.3 select “Unlock” in the upper right corner of the window
- 4.7.4 enter the server password (see 1.7 *Default Passwords and IPs*)
- 4.7.5 click on the “Automatic Login” slide switch to turn it “on”

## 5 Contact

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### **About Me:**

I am Jorinde Schröter, short “Jojo”. I am a student at the “Technical University” in Dresden, Germany. After my graduation from High School I spent one year as a volunteer in Lawra, Upper-West Region of Ghana, in the Methodist Clinic. During that time I taught myself programming and designed a software which is now able to digitize at least smaller medical facilities and which I am offering now to other clinics for free.

In case of any adaptations or updates you might require for smoother processes at your facility, or if you detect any faults in the software, please feel always free to contact me!