



**TECH
STARTER**

Open Scource
Software

Quickfixes

Terminal startet nicht:

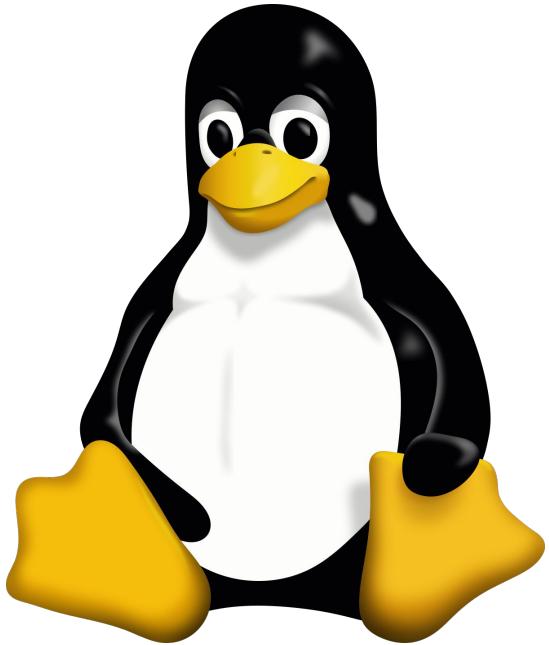
Sprache in den Spracheinstellungen
auf Canadisch-Englisch stellen.

username not in sudoers file:

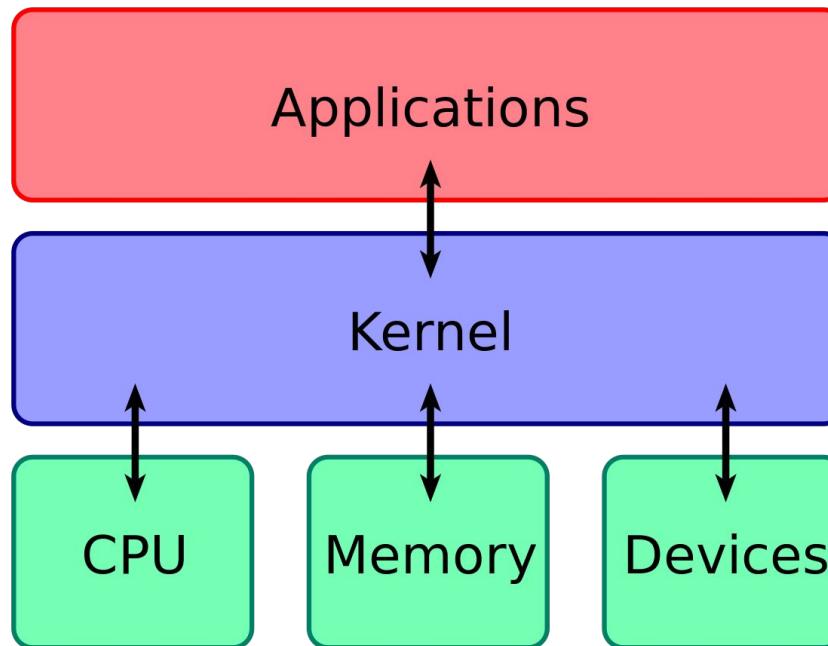
```
su  
apt install sudo  
usermod -aG sudo _username_
```

Neustarten

Linux



Linux Kernel



Distributionen

Übersicht über Distributionen:

https://upload.wikimedia.org/wikipedia/commons/1/1b/Linux_Distribution_Timeline.svg

<https://distrowatch.com/>

Distributionen

Debian GNU/Linux 

Ubuntu 

Red Hat

- Red Hat Enterprise Linux (RHEL) 
 - CentOS 
- } Für Server Optimiert

- Fedora 

SUSE 

- SUSE Linux Enterprise } Für Server Optimiert
- openSUSE

Embedded Systeme

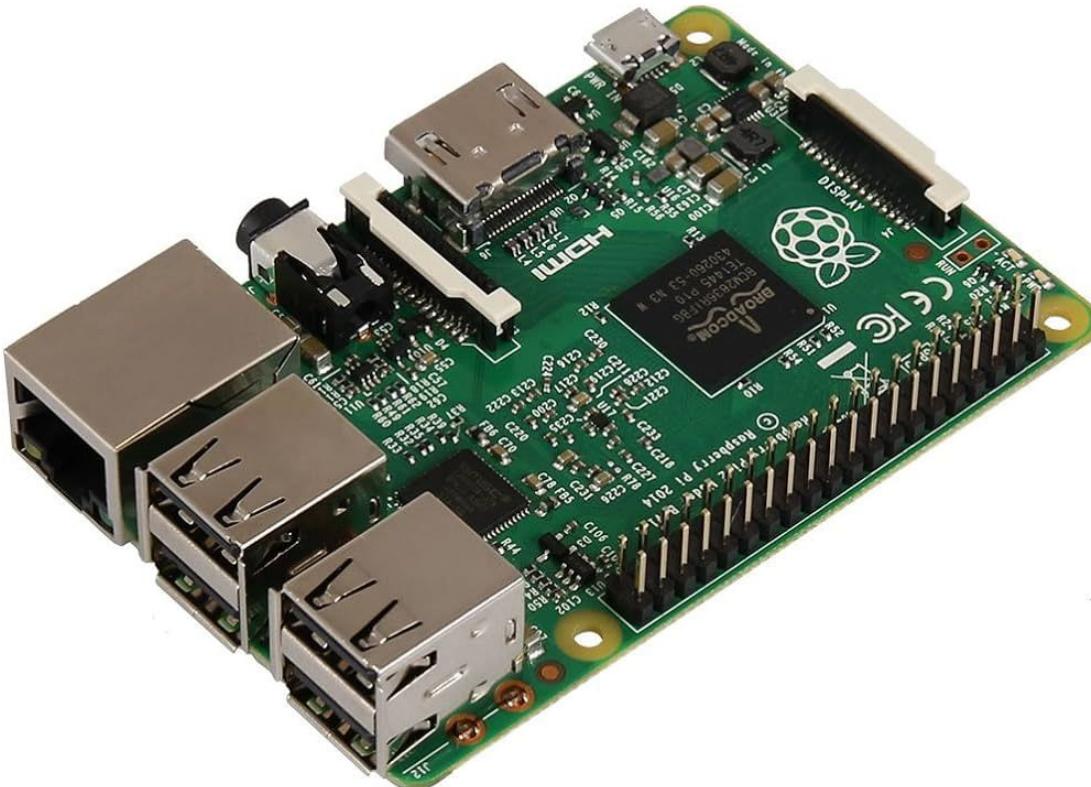
Kombination aus Computer-Hardware und -Software
Automobil-, Medizin- und sogar Militäranwendungen
Smart Devices



Android Open Source Project (AOSP)



Embedded Systeme



Raspberry Pi

Eine der bekanntesten Linux-Distributionen
für den Raspberry Pi ist:

Raspbian



Linux und die Cloud



Recents Quick Start

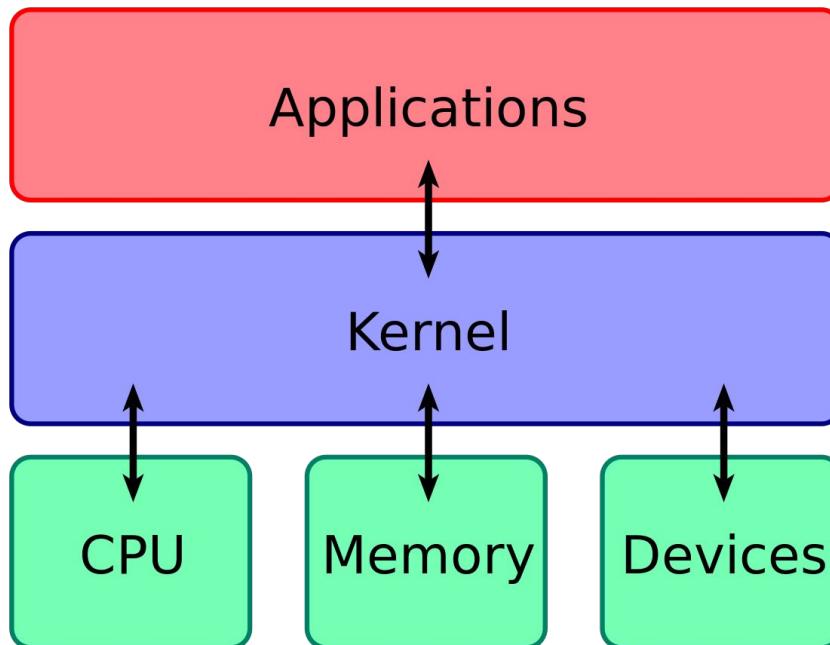
Amazon Linux aws	macOS Mac	Ubuntu ubuntu	Windows Microsoft	Red Hat	SUSE Li SUSI	Browse more AMIs Including AMIs from AWS, Marketplace and the Community
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The screenshot shows the AWS Lambda console's "Quick Start" section. It displays a grid of recent and quick-start AMIs (Amazon Machine Images). The visible options include Amazon Linux (with the AWS logo), macOS (with a Mac logo), Ubuntu (with a red dot icon), Windows (with the Microsoft logo), Red Hat, SUSE Linux (with the SUSI logo), and a search bar for browsing more AMIs. The "Tech Starter" watermark is visible in the bottom left corner.

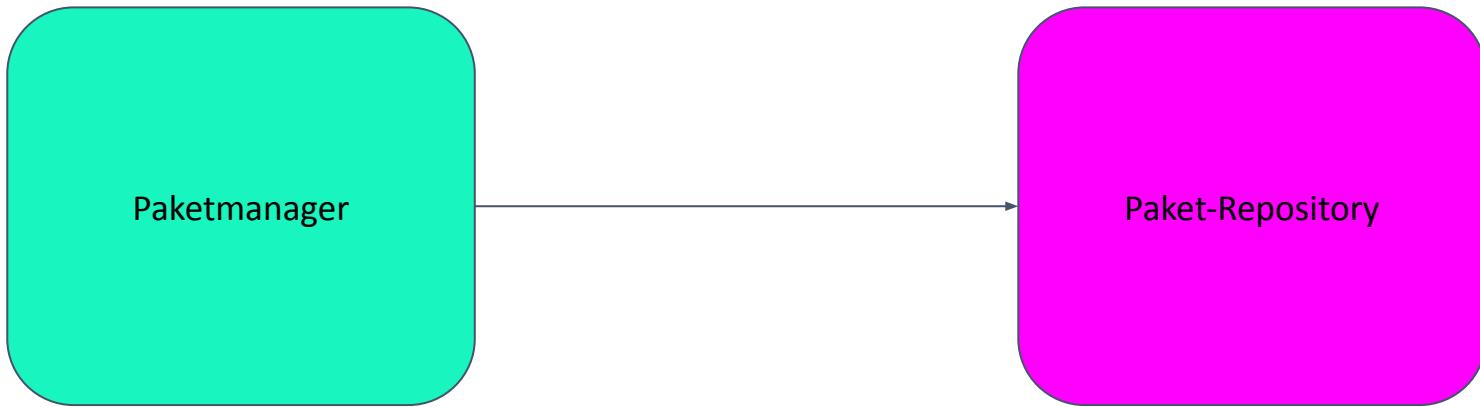
Embedded Systeme

1. Inwiefern unterscheidet sich Debian GNU/Linux von Ubuntu? Nennen Sie zwei Aspekte.
2. Welche sind die gängigsten Umgebungen/Plattformen, in denen Linux eingesetzt wird? Nennen Sie drei verschiedene Umgebungen/Plattformen und nennen Sie eine Distribution, die sich für alle eignet.
3. Sie planen die Installation einer Linux-Distribution in einer neuen Umgebung. Nennen Sie vier Dinge, die Sie bei der Auswahl der Distribution berücksichtigen sollten.
4. Nennen Sie — abgesehen von Smartphones — drei Geräte, auf denen das Android Betriebssystem läuft.
5. Erklären Sie drei wesentliche Vorteile von Cloud Computing.

Die wichtigsten Open-Source-Anwendungen



Softwarepakete



Paket Manager



DEB-Pakete

dpkg

apt-get

apt

RPM-Pakete



rpm

yum

dnf

Paketmanager

```
fox@Ubuntu:~$ sudo apt update
[sudo] password for fox:
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Hit:2 http://de.archive.ubuntu.com/ubuntu jammy InRelease
Get:3 http://de.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:4 http://de.archive.ubuntu.com/ubuntu jammy-backports InRelease
Fetched 229 kB in 1s (267 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
2 packages can be upgraded. Run 'apt list --upgradable' to see them.
fox@Ubuntu:~$ █
```

```
fox@Ubuntu:~$ sudo apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
```

```
fox@Ubuntu:~$ sudo apt update && sudo apt upgrade -y
```

Paketmanager

```
fox@Ubuntu:~$ cowsay hello world!
bash: /usr/games/cowsay: No such file or directory
fox@Ubuntu:~$ █
```

```
fox@Ubuntu:~$ apt search cowsay
Sorting... Done
Full Text Search... Done
cowsay/jammy,jammy 3.03+dfsg2-8 all
  configurable talking cow
```

Pakete Installieren

```
fox@Ubuntu:~$ sudo apt install cowsay
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  filters cowsay-off
The following NEW packages will be installed:
  cowsay
0 upgraded, 1 newly installed, 0 to remove and 2 not upgraded.
Need to get 18,6 kB of archives.
After this operation, 93,2 kB of additional disk space will be used.
Get:1 http://de.archive.ubuntu.com/ubuntu jammy/universe amd64 cowsay all 3.03+dfsg2-8 [18,6 kB]
Fetched 18,6 kB in 0s (168 kB/s)
Selecting previously unselected package cowsay.
(Reading database ... 205549 files and directories currently installed.)
Preparing to unpack .../cowsay_3.03+dfsg2-8_all.deb ...
Unpacking cowsay (3.03+dfsg2-8) ...
Setting up cowsay (3.03+dfsg2-8) ...
Processing triggers for man-db (2.10.2-1) ...
fox@Ubuntu:~$ █
```

Pakete entfernen

```
fox@Ubuntu:~$ sudo apt remove cowsay
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages will be REMOVED:
  cowsay
0 upgraded, 0 newly installed, 1 to remove and 2 not upgraded.
After this operation, 93,2 kB disk space will be freed.
Do you want to continue? [Y/n]
```

```
Do you want to continue? [Y/n] y
(Reading database ... 205609 files and directories currently installed.)
Removing cowsay (3.03+dfsg2-8) ...
Processing triggers for man-db (2.10.2-1) ...
fox@Ubuntu:~$
```

Probiert rum!

sudo apt install cowsay

sudo apt-get install figlet

sudo apt-get install sf

Probiert rum!

sudo apt install cowsay

sudo apt-get install figlet

sudo apt-get install sl

Office Anwendungen



Office Anwendungen

Office Suites:

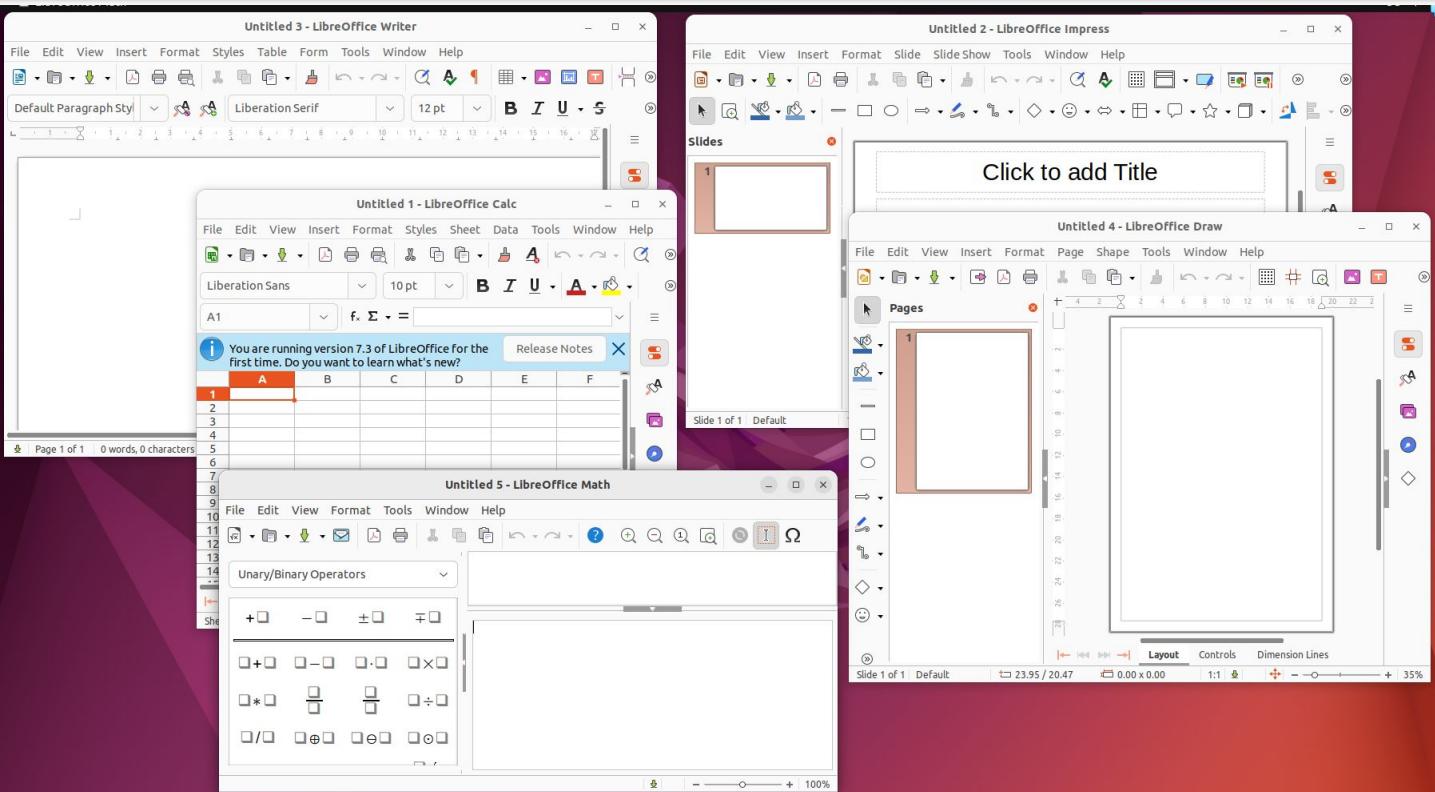
- Microsoft Office
- Apache OpenOffice
- LibreOffice

Office Anwendungen

Writer	Textverarbeitung
Calc	Tabellenkalkulation
Impress	Präsentationen
Draw	Vektorzeichnung
Math	Mathematische Formeln
Base	Datenbank



Office Anwendungen



Webbrowser

Google Chrome

- Basiert auf dem Open Source Browser Chromium



Mozilla Firefox

- Von der Mozilla Foundation.
- Entwicklung vieler offenen Standards
- Thunderbird als beliebte E-mail-Anwendung



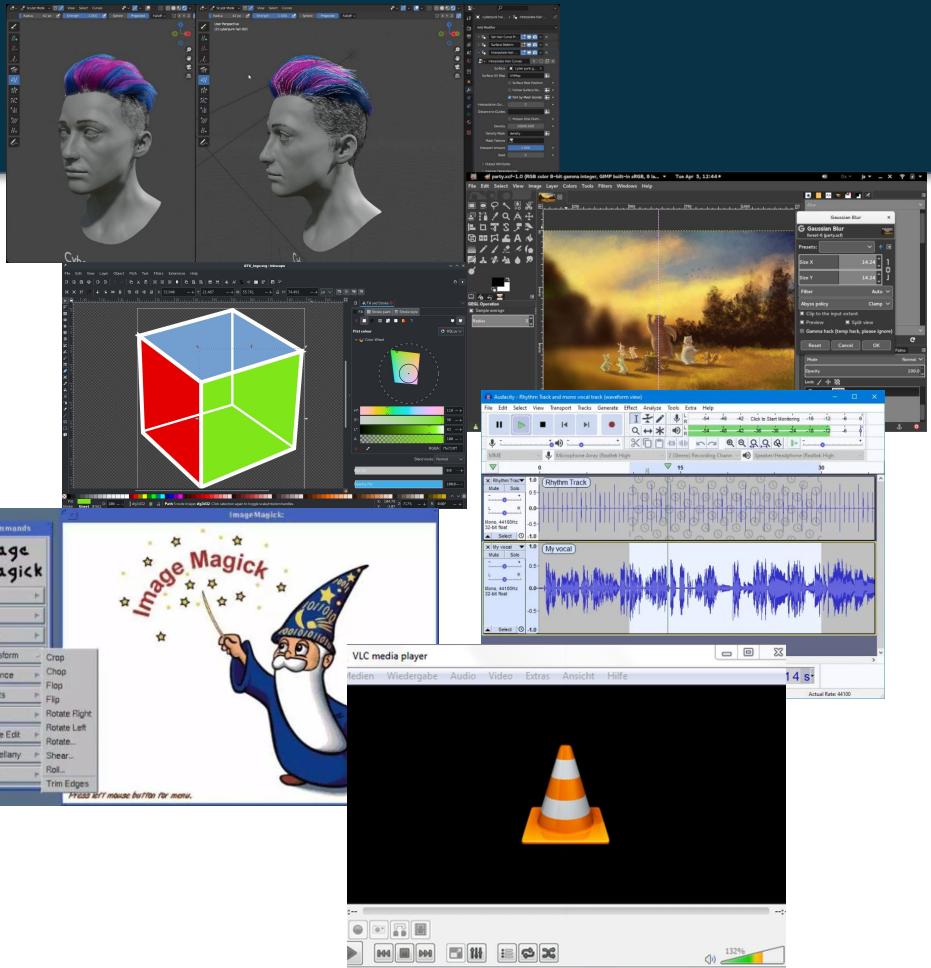
Multimedia

Blender
GIMP
Inkscape
Audacity
ImageMagick
VLC-Media Player



Multimedia

Blender
GIMP
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VLC-Media Player



Open Source Programme

HTTP(Hyper Text Transfer Protocol) server:

- Apache
- Nginx
- Lighttpd

Datenbanken:

- MariaDB
- PostgreSQL

Apache

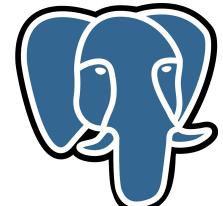
HTTP SERVER



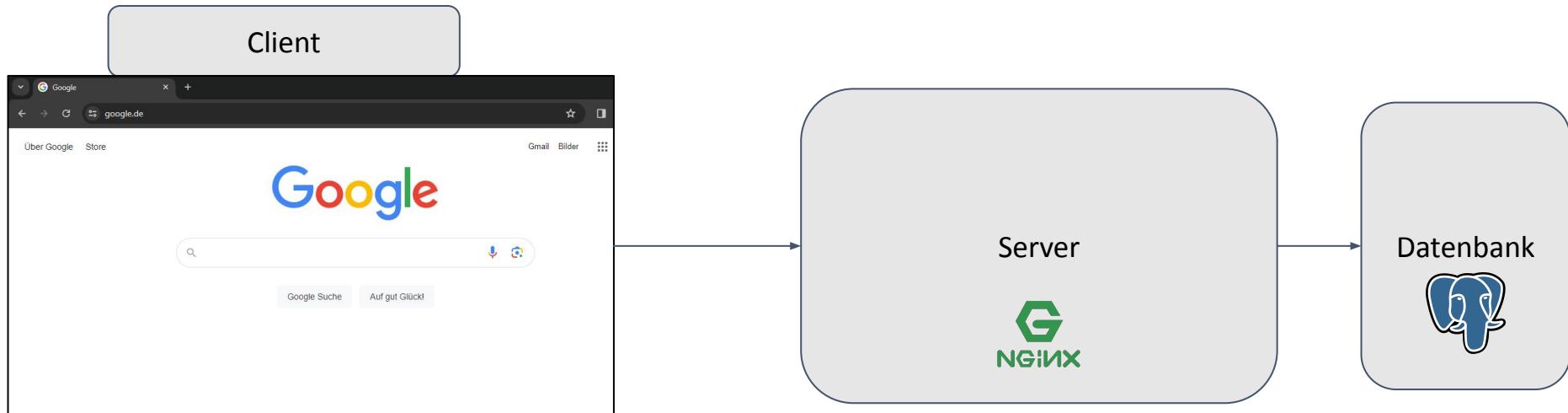
LIGHTTPD
fly light.



NGINX



Office Anwendungen



Open Source Cloud dienste



Neuer
Abschnitt

