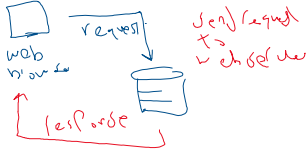


Web Browser
The browser is a program that runs on your computer and allows you to access the Internet. It sends requests to the web server and receives responses from it. The browser also handles the formatting of the web pages and displays them to the user.



The browser extracts the host name from the URI of a URL to extract the web address
e.g. 192.168.1.1
and connect to the right port.

Exercise

Python - m HTTP server 8000
We use nc at to handle networking tasks
ncat -l 1234 -c cat < /dev/null
Send listen client connect
hello

We use requests module to create HTTP requests

from urllib.parse import urlparse

https://giuasini-my.sharepoint.com/:o/r/personal/mohamed_essam_giu-uni_de/_layouts/15/Doc.aspx?sourcedoc=%7B8c959a34-6483-488a-96f7-339514d1da9... 1/4

We're it to split the URL

As a Software Developer
you will deal with data in different formats
html, xml, json
JavaScript object notation

Python has a built-in method called **json** in json module that can convert json to Python dictionary

Hosting

If you opened your favorite browser you will not see Python
HTTP server you will see programs like
⇒ Apache
⇒ Nginx
⇒ Microsoft IIS

https://giuasini-my.sharepoint.com/:o/r/personal/mohamed_essam_giu-uni_de/_layouts/15/Doc.aspx?sourcedoc=%7B8c959a34-6483-488a-96f7-339514d1da9... 2/4

This is a specialized web server programs handle large number of requests

The web originally designed to serve static content like documents from the disk not to deliver applications
⇒ static content like images, videos, HTML files

and the server's above specialized web can serve static content from disk very quickly

Caching: a temporary storage for resources that are likely to be used

⇒ The HTTP user header indicating that is this resource not intent to be changed quickly

one of the important HTTP header
⇒ Set-Cookie
⇒ Cookie

Cookie: is a small piece of data that a web server sends to a browser to store and send back

https://giuasini-my.sharepoint.com/:o/r/personal/mohamed_essam_giu-uni_de/_layouts/15/Doc.aspx?sourcedoc=%7B8c959a34-6483-488a-96f7-339514d1da9... 3/4

They make it possible to stay logged into websites

HTTPS: When you see it this means that you are looking to an encrypted website

Check the authenticity of the site
Protecting data from eavesdroppers on network

These protect passwords and credit cards

https://giuasini-my.sharepoint.com/:o/r/personal/mohamed_essam_giu-uni_de/_layouts/15/Doc.aspx?sourcedoc=%7B8c959a34-6483-488a-96f7-339514d1da9... 4/4