

German International University
Faculty of Informatics and Computer Science
Dr. Iman Awaad
Eng. Ahmed Sherif
Amir Haythem
Mohamed Essam
Yassein Eldamasy

Software Engineering, Winter 2025
Practice Assignment 1

Exercise 1-1

What is an IP Address ?

State the maximum number of devices connected to IPv4 and IPv6 protocols.

Exercise 1-2

What are pros and cons of client server architecture ?

Exercise 1-3

Ahmed would like to upload practise assignment on CMS

How does Ahmed device and CMS server exchange data through TCP ?

Exercise 1-4

What is the differences between UDP and TCP ?

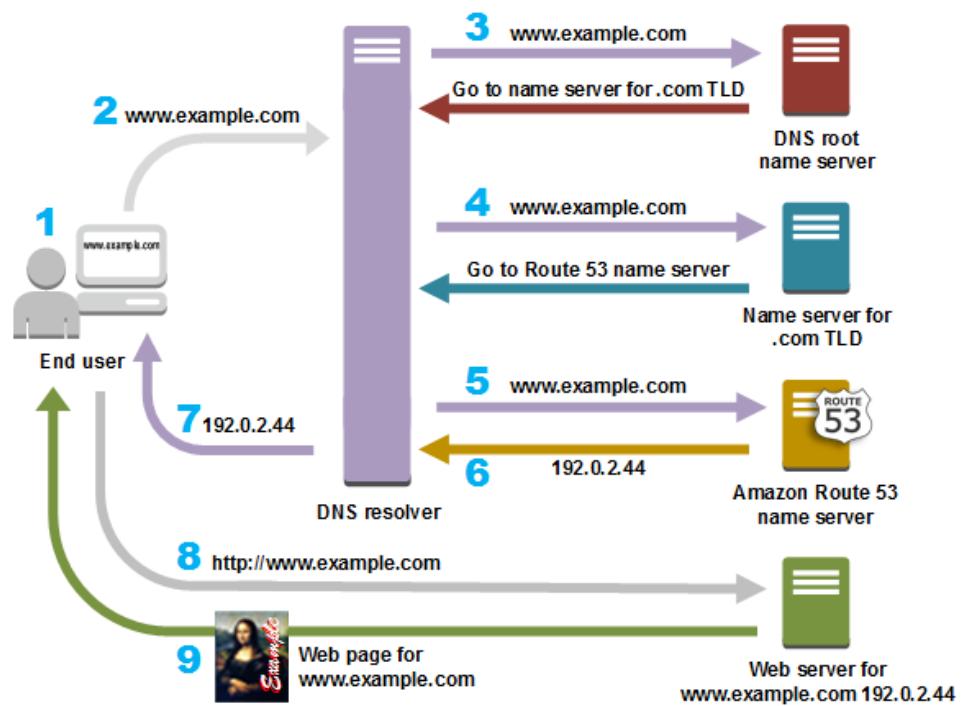
Exercise 1-5

Given the following diagram

Describe the steps of how a webpage is retrieved over the internet.

You must include the following terms such as User, Web Server, DNS in your answer.

Note that Amazon Route 53 name server is an Authoritative Nameserver



Does DNS resolver need to send a query to DNS root server whenever user request a web page ?