Hands-On Lab 03: Web Server

# Objective

Upon completion of this activity, you will:

* develop a web server that handles one HTTP request at a time.

# Requirements

* Your web server should accept and parse the HTTP request (from the web browser), get the requested file from the server’s file system, create an HTTP response message consisting of the requested file preceded by header lines, and then send the response directly to the client (the web browser) to display.
* The HTTP response message must contain the following header lines:
  + Server: cyberpro
  + Date: **Replace\_this\_with\_correct\_datetime**
  + Content-language: en
* If the requested file is not present in the server directory, the server should send an HTTP “404 Not Found” message back to the client (the web browser).

# Materials Required

* VS Code

# Introduction

* Modify only the TCP server in Lab 02. You don’t need to develop a client because you will use a web browser as the client to test your web server. Use “localhost” as the server address and “56789” as the server port.
* Use the following HTML code to create a HelloWorld.html file and save it under the same directory of the web server code.

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Hello World</title>

</head>

<body>

    <h2>Hello, World!</h2>

</body>

</html>

* Run the web server program
* Open a browser and enter the following URL:  
  http://localhost:56789/HelloWorld.html
* Take a screenshot of the web page.
* Then try to change HelloWorld.htm to a file that does not exist on the server. You should get a “404” Not Found” message. Take a screenshot of the web page.

# Submission

Submit the web server Python program (no need to submit HelloWorld.html) along with the screenshots of your web browser, verifying that you actually receive the contents of the HTML file from the server. Do NOT submit a zip file containing the programs!