

CSE 471
DATA COMMUNICATIONS AND COMPUTER
NETWORKS
YEDITEPE UNIVERSITY
FALL 2021
LABWORK 1 – SECTION 2

Below, you can find the description of your labwork for today. You are required to develop a Java application to save image files from a web server and check if it is modified or not. In order to do so, you will use the given *HTMLTest* class and modify the code.

For the part 1, in the given *HTMLTest* class, you are required to extract the payload image file and save it as **image.jpg**.

For the second part, you need to make sure that the image.jpg file is not changed by checking the If-Modified-Since header field in the HTTP protocol. To achieve this, first, you should store the header and data bytes separately. Next, you should find the value corresponding to the “**Last Modified:**” field in the header. Then, you should create a new HTTP request consisting of the stored value for the “**If-Modified-Since:**” field. If the file is not modified, print on the console “**File is up-to-date**”.

Note: Before testing your program, you should download the zero tier from <https://www.zerotier.com/>. When you run the installed program, choose *Join network* and type **12ac4a1e71d65a30** to related field.

Online participants should use the below URL when testing their application:

<http://172.30.122.241:8080/3dsk4fsljnw4.jpg>

In-class users should use the below URL when testing their application:

<http://10.2.10.202:8080/3dsk4fsljnw4.jpg>

Application Walkthrough

Please Enter the URL address of the web page:

<http://172.30.122.241:8080/3dsk4fsljnw4.jpg>

GET /3dsk4fsljnw4.jpg HTTP/1.1

Host: 172.30.122.241

Connection: close

HTTP message for if-modified-since:

GET /3dsk4fsljnw4.jpg HTTP/1.1

Host: 172.30.122.241

Connection: close

If-Modified-Since: Wed, 02 Oct 2019 12:49:29 GMT

Received header:

HTTP/1.1 304 Not Modified

Date: Fri, 05 Nov 2021 12:52:03 GMT

Server: Apache/2.4.38 (Debian)

Connection: close

ETag: "2e017-593ece6508b67"

File is up-to-date