

## Lab - Email Header & Internet History Analysis

TERM	NAME – Student ID	COURSE CODE	WEIGHT
Winter 2025	Leandro Delgado	CYT215	10%

### Lab Objectives

Upon completion of this lab, you will be able to perform the following:

- Examine and Analyze Email headers of Gmail webmail.
- Analyze Internet Cache of Chrome/Mozilla Browser.
- Analyze Internet History of Chrome/Mozilla Firefox Browser.

### Lab Materials

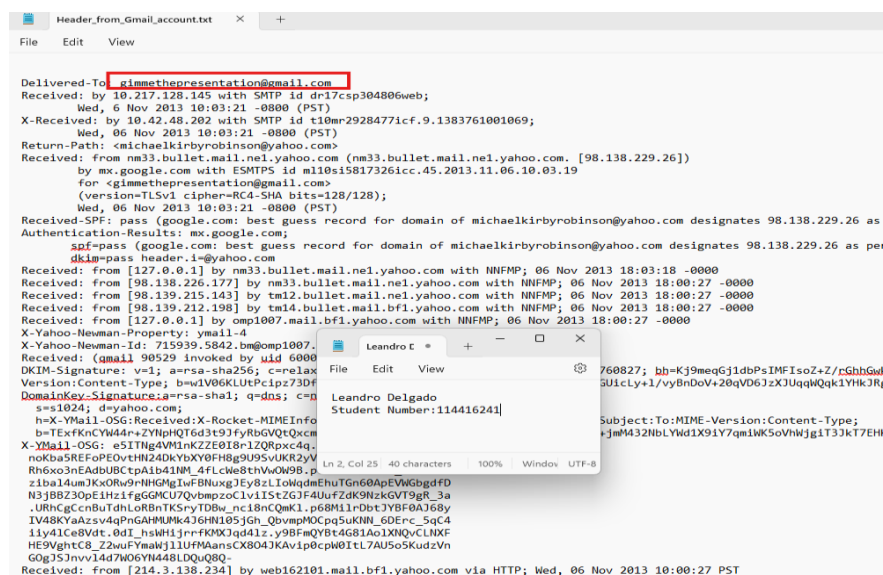
- Windows Machine
- Tools and utilities:
  - MS Windows:
    - Product: **Text File reader**
    - Manufacturer: various
    - Web site: various
    - Product: **MozillaCacheView or ChromeCacheView**
    - Manufacturer: NirSoft
    - Web site: [http://www.nirsoft.net/web\\_browser\\_tools.html](http://www.nirsoft.net/web_browser_tools.html)
    - Product: **MozillaHistoryView or ChromeHistoryView**
    - Manufacturer: NirSoft
    - Web site: [http://www.nirsoft.net/web\\_browser\\_tools.html](http://www.nirsoft.net/web_browser_tools.html)
- Data files:
  - E-mail\_headers.zip (password: **hands-on**)
  - Compressed\_Caches.zip (password: **infected**) or your own cache and web history files

### Lab Instructions

- Download and install all required software on Windows OS
- Download all required forensic images.
- Complete this lab.
- Enter **your name and student ID above**.
- Answer questions and add screenshots.

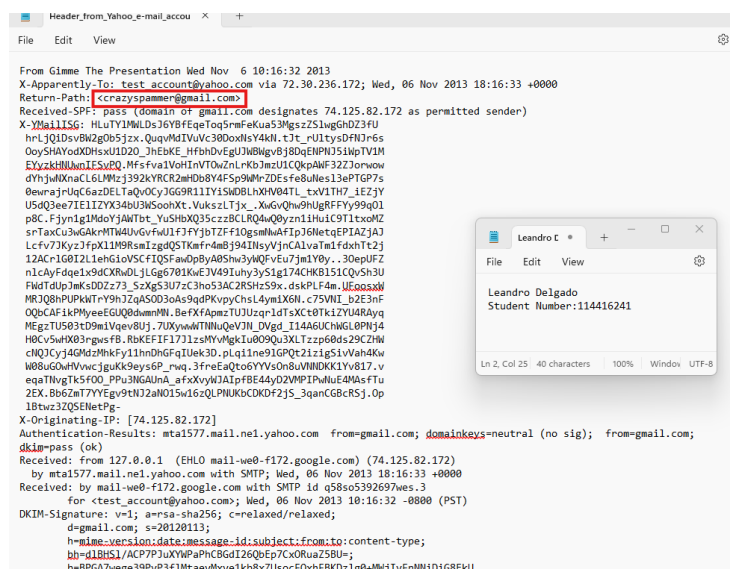
## Part 1: Email Header Analysis

- Download the file named "**e-mail\_headers.zip**" from the *Blackboard*. Extract the files from the compressed file and place them on your desktop.
- Open the file named "**Header\_from\_gmail\_account.txt**" (Note: If you have a Gmail e-mail account, the e-mail header can be retrieved by going to your inbox with a browser, opening an e-mail, clicking on "More" on the right side of the menu and selecting "Show Original" from the pop-up menu. For this activity, this step has already been completed and the output has been saved to a text file.)



```
Delivered-To: gimmetherepresentation@gmail.com
Received: by 10.217.128.145 with SMTP id dr17csp304806web;
Wed, 6 Nov 2013 10:03:21 -0800 (PST)
X-Received: by 10.42.48.202 with SMTP id t10mr2928477icf.9.1383761001069;
Wed, 06 Nov 2013 10:03:21 -0800 (PST)
Return-Path: <michaelkirbyrobinson@yahoo.com>
Received: from nm33.bullet.mail.ne1.yahoo.com (nm33.bullet.mail.ne1.yahoo.com. [98.138.229.26])
by mx.google.com with ESMTPS id n1ds15817326icc.45.2013.11.06.10.03.19
for <gimmetherepresentation@gmail.com>
(version=TLSv1 cipher=RC4-SHA bits=128/128);
Wed, 06 Nov 2013 10:03:21 -0800 (PST)
Received-SPF: pass (google.com: best guess record for domain of michaelkirbyrobinson@yahoo.com designates 98.138.229.26 as
Authentication-Results: mx.google.com;
spf=pass (google.com: best guess record for domain of michaelkirbyrobinson@yahoo.com designates 98.138.229.26 as per
dkim=pass header.i=@yahoo.com
Received: from [127.0.0.1] by nm33.bullet.mail.ne1.yahoo.com with NNMP; 06 Nov 2013 18:03:18 -0800
Received: from [98.138.226.177] by nm33.bullet.mail.ne1.yahoo.com with NNMP; 06 Nov 2013 18:00:27 -0800
Received: from [98.139.215.143] by tm12.bullet.mail.ne1.yahoo.com with NNMP; 06 Nov 2013 18:00:27 -0800
Received: from [98.139.212.198] by tm14.bullet.mail.bf1.yahoo.com with NNMP; 06 Nov 2013 18:00:27 -0800
Received: from [127.0.0.1] by omp1007.mail.bf1.yahoo.com with NNMP; 06 Nov 2013 18:00:27 -0800
X-Yahoo-Newman-Property: ymail-4
X-Yahoo-Newman-Id: 715939,5842.bm@omp1007.
Received: (qmail 90529 invoked by uid 6000
DKIM-Signature: v=1; a=rsa-sha256; c=relax
Version:Content-Type; b=w1V06KLUTPc1pz73Df
DomainKey-Signature:a=rsa-sha1; q=dns; c=n
s=s1024; d=yahoo.com;
h=X-YMail-OSG:Received:X-Rocket-MIMEInfo
b=TExfKncYm44+ZYnpHQ76d3t9JfYRbGVQtxcm
X-Mail-OSG: s5TtHg4PMkKZZE9E8-12Q8pxc4q.
noKbaSRFoF0vCH24DKYDY0FHg09S5UK82VY
Rh6xo3nEAdUBCTpa1b41NM_4fLcW8thVw0W9B.p
z1ba14umJk0Rw9rHMGmIwFBNuxgJEy8zLtoWqdmEhuTgn60ApEwGbgdFD
N3jB8230pE1H2ifG6GCUQvQbnpzoC1v15tZGJF4uufZdk9MzkGVT9gR_3a
.URnGcCnbtDhLoRbTKSryTD0w.nc18nQmk1.p68M11-Dst3YB8A76dy
IV48KYAzzsv4qPnGAHMLmk4J6Hn105JG_QbvmqMOCpq5uKNN_6Derc_5qC4
1iy41Ce8vdt.0d1_hshWijrrFKMXJqd41z.y9BFmQYbt4G81Ao1XNqVCLNFX
HE9VghtC8_Z2wuFYmaWj11UfPMaansCX804JKAvip0cpW0ItL7AU5o5KudZVn
G0g35nvu14d7W06YH448LDQuQ8Q-
Received: from [214.3.138.234] by web162101.mail.bf1.yahoo.com via HTTP; Wed, 06 Nov 2013 10:00:27 PST
```

Figure 1. Image Header from Gmail



```
From Gimm The Presentation Wed Nov 6 10:16:32 2013
X-Apparently-To: test_account@yahoo.com via 72.30.236.172; Wed, 06 Nov 2013 18:16:33 +0000
Return-Path: <crazyzspammer@gmail.com>
Received-SPF: pass (domain of gmail.com designates 74.125.82.172 as permitted sender)
X-YMail-OSG: HLUYIMWLDsJ6YBfEqToq5mFekua53MgszZ5lwgGhD23FU
hrlJQ1DsvW82g0b5jzx.QuqvMdvUvC30DovM5Y4kN.t1t_rUlytsDFNDr6s
OoySHAtodKhsxU1D20_2hEbKE_HfRhdvEglWbNgv8j80qEPNj51kp1VIM
Elyx8h8kMeISu2Q_MfsvFva1vOH1vT0zLnR0Jm1u1CQepdF3223onvov
dyHjwKnaLCL6LMwz3392KYRCR2wHDbY4FSp9WwZDeSe8Ules13ePTGP7s
0ewra3rLqCzDELtAQ0CyJG69R11IY5MOBLhXHV04TL_txV1TH7_1eZjY
U5D3ee7F1E1ZYX34bU3MsoohXt.VuksLTJx_.XwGvQhw9HUFFY99q01
p8C.Fjyn1g1MdoYJAWTbt_YuShbXQ35cz8CLRQ4wQ0yzn1Hui1C9T1txoM2
srTaxCu3wGAKrM4UvGvrfW1f3jYp7ZF10gsmWAFipJ6metqEPIAZJAJ
Lcfv77ky2FpX11M98rIszgQ5tKafmd9j94I8yJvJnAlva1Mfsh1C2j
124C-r1G0121ehG1oVSCFIQSFawDpByA0Shw3yWQFvEu7jm1Y8y...30epUFZ
n1cAfDqelx9dCXhWdLJLg6701kEiV491uhy3yS1g74CHKB151CQvsh3U
FwdTdpJmksD0Zz73_SzXgS3U7z3ho53AC2RSHz59x.dskPLF4m_UQeoaxXU
MRJQ8hPUPkNtY9hJZqAS003oAs9gdPKvpyChs14ymLX6N.c75VNI_b2E3nF
Q0bCAF1kPhyeeEGUQ8dmMN.BerFXApnzTUJzqrIdTsXct8tK1ZYU4RAYq
MEgUTS83t9m1Vqev8Uj_7UXxwM7MwQvJmLVdgD_11446KMG10P1j4
HBCvSwX03rpesFB.RbKEFI1711zshVwMgk1u0090u3XLTzrp68ds29C2Hw
cMQJcy4GdzPhkFy11hndHqG1Uek3D.pLq1ne91GPQ72izig5ivVah4Kw
W08uG0wHvwcjK9eys6P_rnq.3fReEaQto6YVYs0n8VWNNKCIYv817.v
eqaTlNvTK5F00_PPu3NGAUnA_afxXvYwJAIpFBE44yDZVMP1wLue4MtsTU
2EX.B06zW7YYEgv9th72aH015w16zQLPNUKCDKDF2J5_3qanC68rS5jOp
1Btu23Q5EneP8-
X-Originating-IP: [74.125.82.172]
Authentication-Results: mta1577.mail.ne1.yahoo.com from=gmail.com; domainkeys=neutral (no sig); from=gmail.com;
dkim=pass (ok)
Received: from 127.0.0.1 (EHLO mail-we0-f172.google.com) (74.125.82.172)
by mta1577.mail.ne1.yahoo.com with SMTP; Wed, 06 Nov 2013 18:16:33 +0000
Received: by mail-we0-f172.google.com with SMTP id q58so539297wes.3
for <test_account@yahoo.com>; Wed, 06 Nov 2013 10:16:32 -0800 (PST)
DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
d=gmail.com; s=20120113;
h=mime-version:date:message-id:subject:from:to:content-type;
bh=d1BS1/ACP7P7YXYWPaPhCBGdI26QEp7Cx0RuaZ5BU=;
b=BP6A7wege39PvP3f1MtaevMve1k8xZuocF0xhFKDzI8b+MwJivFnNv1D1G8EKU
```

Figure 2. Image header from yahoo

```
CO2PR0501MB855.namprd05.prod.outlook.com (10.141.244.153) with Microsoft
SMTP Server (TLS) id 15.1.256.15; Thu, 3 Sep 2015 18:49:39 +0000
Received: from BN1AFFO11FD036.protection.gbl (2a01:111:f400:7c10::100) by
DM2PR0501CA0030.outlook.office365.com (2a01:111:e400:5148::40) with Microsoft
SMTP Server (TLS) id 15.1.262.15 via Frontend Transport; Thu, 3 Sep 2015 18:49:38
+0000
Authentication-Results: spf=none (sender IP is 129.174.0.48)
smtp.mailfrom=listserv.verycooldudedomain.com;
verycooldudedomaincom.onmicrosoft.com; dkim=none (message
not signed) header.d=none;verycooldudedomaincom.onmicrosoft.com; dmarc=
action=none
header.from=verycooldudedomain.com;verycooldudedomain.com; dkim=none
(message not signed)
header.d=none;verycooldudedomain.com; dmarc=none action=none
header.from=verycooldudedomain.com;
Received-SPF: None (protection.outlook.com: listserv.verycooldudedomain.com
not designate permitted sender hosts)
Received: from caduceus3.verycooldudedomain.com (129.174.0.48) by
BN1AFFO11FD036.mail.protection.outlook.com (10.58.52.240) with Microsoft SMTP
Server id 15.1.262.18 via Frontend Transport; Thu, 3 Sep 2015 18:49:37 +0000
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="Boundary_(ID_n9MKfFXuLZcdfYe3sysZg)"
```

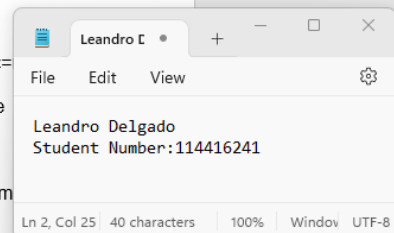
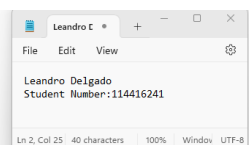


Figure 3. Header from Microsoft 365

- Answer the following questions:

From which e-mail account did it originate? **[screenshot]**

```
G0g253nvv14d7W06YN448LDQuQ0Q-
Received: from [214.3.138.234] by web162101.mail.bf1.yahoo.com via HTTP; Wed, 06 Nov 2013 10:00:27 PST
X-Rocket-MIMEInfo: 002.001,d0VzdAo9MAEBAQE-
X-Mailer: YahooMailWebService/0.8.161.596
Message-ID: <1383760827.81236.YahooMailNeo@web162101.mail.bf1.yahoo.com>
Date: Wed, 6 Nov 2013 10:00:27 -0800 (PST)
From: Michael Robinson <michaelkirbyrobinson@yahoo.com>
Reply-to: Michael Robinson <michaelkirbyrobinson@yahoo.com>
Subject: test
To: "gimmethepresentation@gmail.com" <gimmethepresentation@gmail.com>
MIME-Version: 1.0
Content-Type: multipart/alternative; boundary="376370013-1936709677-1383760827-81236"
--376370013-1936709677-1383760827-81236
Content-Type: text/plain; charset=us-ascii
test
```



Gmail Email: Sent From Michael Robinson michaelkirbyrobinson@yahoo.com

Get the email sender accounts for the other available header files.

- Yahoo Email: Sent from [crazyspammer@gmail.com](mailto:crazyspammer@gmail.com).
- Gmail Email: [gimmethepresentation@gmail.com](mailto:gimmethepresentation@gmail.com)
- Windowns 365 : [listserv@verycooldudedomain.com](mailto:listserv@verycooldudedomain.com)

**1) What is SMTP (example below from an email header):**

X-Received: by 10.194.88.225 with SMTP id  
bj1mr2994653wjb.50.1383761792331;  
Wed, 06 Nov 2013 10:16:32 -0800 (PST)

SMTP: is the communication protocol used to send emails between mail servers. It is responsible for routing and delivering outgoing emails.

**2) What is POP3/IMAP and how are these protocols different from SMTP?**

- **POP3** pulls emails from the server to your device and deletes them, meaning you can't access them from another device.
- **IMAP** keeps emails on the server, so you can check them from anywhere.
- **SMTP** is different—it's only used for sending emails, not receiving them.

**3) Get a copy of the email headers for an email you received and analyze it. If you want to analyze emails easier you can copy and paste the headers in the below link:**

<https://mxtoolbox.com/EmailHeaders.aspx>

Header Analyzed  
Email Subject:

Delivery Information

Relay Information

Received Delay: 0 seconds

SPF and DKIM Information

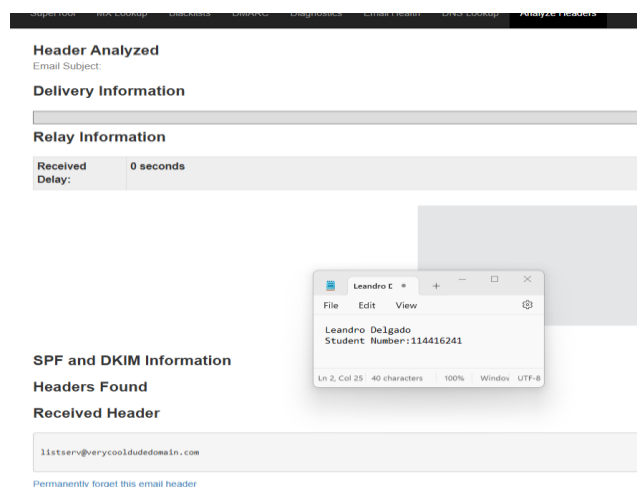
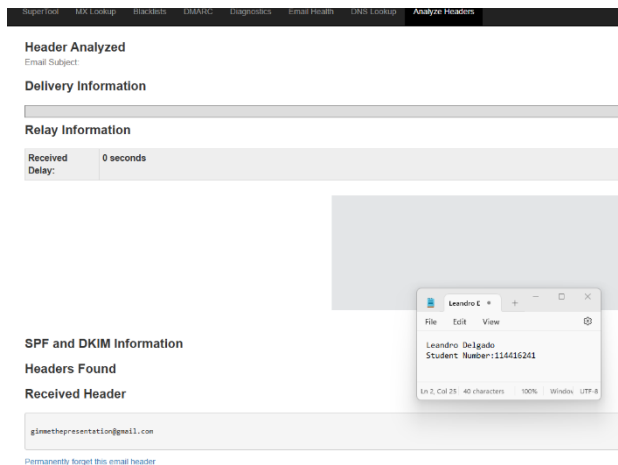
Headers Found

Received Header

crazyspammer@gmail.com.

Leandro E

Leandro Delgado  
Student Number: 114416241



## Part

## 2: Analyzing Chrome/Firefox History

- Download **MozillaHistoryView.zip** or **ChromeHistoryView.zip**.
- Run the tool and open your own Chrome/Firefox history file or use the provided files.
- Answer the below questions:
  - 1) What is the location of your history file?
    - ? **Chrome:**  
C:\Users\YourUserName\AppData\Local\Google\Chrome\User Data\Default\History
    - ? **Firefox:**  
C:\Users\YourUserName\AppData\Roaming\Mozilla\Firefox\Profiles\yourprofile.default\places.sqlite
  - 2) How many websites have you visited?  
  
2046
  - 3) Select one of the most visited websites in your history and provide some information about it, e.g. was it a typed URL? What is the URL length? What

is the last visited time? When was the last time the URL was visited. You can open the entry and provide a screenshot as well.

URL	Title	Visited On	Visit Count	Typed Count	Referrer	Visit Duration	Visit ID	Profile
https://learn.senecapolytechnic.ca/auth-saml/...	Sign in to your account	3/25/2025 6:15:42 ...	1	0	https://learn.senecapolytechnic.ca/	00:00:00.429	6	Default
https://learn.senecapolytechnic.ca/ultra		3/25/2025 6:16:57 ...	1	0	https://learn.senecapolytechnic.ca/ultra	00:00:00.609	25	Default
https://learn.senecapolytechnic.ca/ultra/	learn.senecapolytechnic.ca/ultra	3/25/2025 6:16:57 ...	1	0	https://learn.senecapolytechnic.ca/ultra	00:00:03.429	26	Default
https://learn.senecapolytechnic.ca/ultra/course	learn.senecapolytechnic.ca/ultra/co...	3/25/2025 6:17:00 ...	1	0	https://learn.senecapolytechnic.ca/ultra/co...	00:00:13.296	28	Default
https://learn.senecapolytechnic.ca/ultra/courses/...	Content / IT Security Forensics	3/25/2025 6:17:03 ...	1	0	https://learn.senecapolytechnic.ca/ultra/co...	00:00:02.081	29	Default
https://learn.senecapolytechnic.ca/ultra/courses/...	View Assessment	3/25/2025 6:17:18 ...	1	0	https://learn.senecapolytechnic.ca/ultra/co...	00:00:01.877	31	Default
https://learn.senecapolytechnic.ca/ultra/courses/...	learn.senecapolytechnic.ca/ultra/i...	3/25/2025 6:17:16 ...	1	0	https://learn.senecapolytechnic.ca/ultra/i...	00:00:02.072	30	Default
https://learn.senecapolytechnic.ca/ultra/institutio...	learn.senecapolytechnic.ca/ultra/i...	3/25/2025 6:16:58 ...	1	0	https://login.microsoftonline.com/eb3474...	00:00:00.002	27	Default
https://login.microsoftonline.com/common/SAS/...	Sign in to your account	3/25/2025 6:16:54 ...	1	0	https://login.microsoftonline.com/eb3474...	00:00:00.013	22	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.013	20	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:41.497	19	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.001	21	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.032	13	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:05.884	17	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.001	16	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.001	15	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.003	14	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.001	18	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.003	12	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.001	11	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0	https://login.microsoftonline.com/eb3474...	00:00:00.002	10	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:00.058	9	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:15:42 ...	1	0		00:00:195	7	Default
https://login.microsoftonline.com/eb3474a-58e7-...	Sign in to your account	3/25/2025 6:15:42 ...	1	0		00:00:24.973	8	Default
https://login.microsoftonline.com/kmsi	Working...	3/25/2025 6:16:57 ...	1	0		00:00:00.149	23	Default
https://www.google.com/search?q=chatgpt&oq=...	chatgpt - Google Search	3/25/2025 6:19:11 ...	1	0		00:00:00.130	32	Default
https://www.google.com/search?q=humanize+ai...	humanize ai - Google Search	3/25/2025 6:19:11 ...	1	0		00:00:02.789	33	Default
https://www.google.com/search?q=humanize+ai...	humanize ai - Google Search	3/25/2025 6:44:34 ...	3	0		00:00:00.372	60	Default
https://www.google.com/search?q=humanize+ai...	humanize ai - Google Search	3/25/2025 6:44:34 ...	3	0		00:00:00.933	61	Default
https://www.google.com/search?q=humanize+ai...	humanize ai - Google Search	3/25/2025 6:44:34 ...	3	0		00:00:00.038	59	Default
https://www.humanizeai.io/	AI Humanizer: #1 Humanize AI Te...	3/25/2025 6:44:35 ...	1	0			62	Default

- URL: https://login.microsoftonline.com/eb347f4a-58e7...
  - Visit Count: 13 times
  - Typed Count: 0 (Meaning it was not manually typed; likely accessed via a saved login, bookmark, or redirection)
  - URL Length: 76 characters
  - Last Visited Time: 3/25/2025 6:16:13 AM
  - Referrer: https://login.microsoftonline.com/... (Indicating the visit originated from Microsoft's login system)
  - Visit Duration: Extremely short (mostly 0.001–0.002 seconds, indicating quick authentication processes)
- 4) Is there a typed URL in your history? Provide more information about it. If you don't have a typed URL, please close the application, type a URL and re-open the tool. How many times have you typed the URL and how many times have you visited it?

ChromeHistoryView

File Edit View Options Help

JURL	Title	Visited On	Visit Count	Typed Count	Referrer	Visit Duration	Visit ID	Profile
https://auth.openai.com/api/accounts/callback/g...	ChatGPT	3/25/2025 6:19:52 ...	1	0	https://accounts.google.com/signin/oauth...		52	Default
https://auth.openai.com/api/accounts/consent?...	ChatGPT	3/25/2025 6:19:52 ...	1	0	https://auth.openai.com/api/oauth/oauth2...		54	Default
https://auth.openai.com/api/accounts/login?logi...	Login - ChatGPT	3/25/2025 6:19:16 ...	1	0	https://auth.openai.com/api/oauth/oauth2...		38	Default
https://auth.openai.com/api/oauth/oauth2/auth?...	ChatGPT	3/25/2025 6:19:52 ...	1	0	https://auth.openai.com/api/accounts/con...		55	Default
https://auth.openai.com/api/oauth/oauth2/auth?...	ChatGPT	3/25/2025 6:19:52 ...	1	0	https://auth.openai.com/api/accounts/call...		53	Default
https://auth.openai.com/api/oauth/oauth2/auth?...	Login - ChatGPT	3/25/2025 6:19:16 ...	1	0	https://auth.openai.com/api/accounts/aut...		37	Default
https://auth.openai.com/authorize?audience=htt...	Login - ChatGPT	3/25/2025 6:19:16 ...	2	0	https://auth.openai.com/api/accounts/logi...	00:00:0.164	39	Default
https://auth.openai.com/authorize?audience=htt...	Login - ChatGPT	3/25/2025 6:19:16 ...	2	0	https://chatgpt.com/	00:00:0.300	40	Default
https://chatgpt.com/	ChatGPT	3/25/2025 6:19:14 ...	3	0	https://chatgpt.com/	00:00:0.990	35	Default
https://chatgpt.com/	ChatGPT	3/25/2025 6:19:52 ...	3	0	https://chatgpt.com/api/auth/callback/op...	00:00:54.674	57	Default
https://chatgpt.com/	ChatGPT	3/25/2025 6:19:13 ...	3	0	https://www.google.com/search?q=chatg...	00:00:0.187	34	Default
https://chatgpt.com/api/auth/callback/openai?co...	ChatGPT	3/25/2025 6:19:52 ...	1	0	https://auth.openai.com/api/oauth/oauth2...		56	Default
https://chatgpt.com/c/67e32c3d-f8a8-8006-8fd9-...	Email Header Analysis	3/25/2025 6:20:47 ...	1	0	https://chatgpt.com/		58	Default
https://learn.senecapolytechnic.ca/	Blackboard	3/25/2025 6:15:38 ...	2	0	https://learn.senecapolytechnic.ca/	00:00:03.580	5	Default
https://learn.senecapolytechnic.ca/	Blackboard	3/25/2025 6:16:57 ...	2	0	https://login.microsoftonline.com/kmsi		24	Default
https://learn.senecapolytechnic.ca/auth-saml?sa...	Sign in to your account	3/25/2025 6:15:42 ...	1	0	https://learn.senecapolytechnic.ca/		6	Default
https://learn.senecapolytechnic.ca/ultra	Learn	3/25/2025 6:16:57 ...	1	0	https://learn.senecapolytechnic.ca/	00:00:0.429	25	Default
https://learn.senecapolytechnic.ca/ultra	Learn.senecapolytechnic.ca/ultra	3/25/2025 6:16:57 ...	1	0	https://learn.senecapolytechnic.ca/ultra	00:00:0.609	26	Default
https://learn.senecapolytechnic.ca/ultra/course	Learn.senecapolytechnic.ca/ultra/course	3/25/2025 6:17:00 ...	1	0	https://learn.senecapolytechnic.ca/ultra/in...	00:00:03.429	28	Default
https://learn.senecapolytechnic.ca/ultra/courses/_...	Content / IT Security Forensics	3/25/2025 6:17:03 ...	1	0	https://learn.senecapolytechnic.ca/ultra/co...	00:00:13.296	29	Default
https://learn.senecapolytechnic.ca/ultra/courses/_...	View Assessment	3/25/2025 6:17:18 ...	1	0	https://learn.senecapolytechnic.ca/ultra/co...		31	Default
https://learn.senecapolytechnic.ca/ultra/courses/_...	Learn.senecapolytechnic.ca/ultra/...	3/25/2025 6:17:16 ...	1	0	https://learn.senecapolytechnic.ca/ultra/co...	00:00:02.081	30	Default
https://learn.senecapolytechnic.ca/ultra/institutio...	Learn.senecapolytechnic.ca/ultra/i...	3/25/2025 6:16:58 ...	1	0	https://learn.senecapolytechnic.ca/ultra/i...	00:00:01.877	27	Default
https://login.microsoftonline.com/common/SAS?...	Sign in to your account	3/25/2025 6:16:54 ...	1	0		00:00:0.072	22	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0		00:00:0.002	20	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0		00:00:0.013	19	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0		00:00:0.497	21	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.001	13	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0		00:00:0.032	17	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.884	16	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.001	15	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.003	14	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:13 ...	13	0		00:00:0.001	18	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.003	12	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.001	11	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.002	10	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:16:07 ...	13	0		00:00:0.058	9	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:15:42 ...	1	0	https://learn.senecapolytechnic.ca/auth-sa...	00:00:0.195	7	Default
https://login.microsoftonline.com/eb34f74a-58e7-...	Sign in to your account	3/25/2025 6:15:42 ...	1	0	https://login.microsoftonline.com/eb34f74...	00:00:24.973	8	Default
https://login.microsoftonline.com/kmsi	Working...	3/25/2025 6:16:57 ...	1	0	https://login.microsoftonline.com/commo...	00:00:0.149	23	Default
https://www.google.com/search?q=chatgpt&oq=...	chatgpt - Google Search	3/25/2025 6:19:11 ...	1	0		00:00:0.130	32	Default
https://www.google.com/search?q=chatgpt&oq=...	chatgpt - Google Search	3/25/2025 6:19:11 ...	1	0	https://www.google.com/search?q=chatg...	00:00:02.789	33	Default
https://www.google.com/search?q=humanize+ai...	humanize ai - Google Search	3/25/2025 6:44:34 ...	3	0	https://www.google.com/search?q=huma...	00:00:0.372	60	Default
https://www.google.com/search?q=humanize+ai...	humanize ai - Google Search	3/25/2025 6:44:34 ...	3	0	https://www.google.com/search?q=huma...	00:00:0.933	61	Default
https://www.google.com/search?q=humanize+ai...	humanize ai - Google Search	3/25/2025 6:44:34 ...	3	0		00:00:0.038	59	Default
https://www.humanizeai.io/	AI Humanizer: #1 Humanize AI Te...	3/25/2025 6:44:35 ...	1	0	https://www.google.com/search?q=huma...		62	Default

Ln 2, Col 25: 40 characters | 100% | Window UTF-8

Leandro Delgado  
Student Number: 114416241

All entries in the "Typed Count" column show 0, meaning no website was manually typed into the browser's address bar.

## Part 3: Analyzing Chrome/Firefox Cache

- Download **ChromeCacheView.zip** or **MozillaCacheView.zip**.
- Use your own cache files or the sample files on the blackboard.
- A sample result of MZCacheViewer is shown below:



Filename	URL	Content Type	File Size	Last Accessed	Server Time	Server Last Modified	Expire Time	Server Name	Server Response	Web Site	Frame	Content En...	Cache Name
0xjon	https://chatgpt.com/backend-api/gpt/v1/p-67612c5c38...	application/json	316	3/25/2025 6:20:47	3/25/2025 6:20:47			cloudflare	HTTP/1.1 200	https://chatgpt.com	https://chatgpt.com	br	data_3 [130480]
0xjon	https://chatgpt.com/backend-api/gpt/v1/p-67612c5c38...	application/json	364	3/25/2025 6:20:47	3/25/2025 6:20:47			cloudflare	HTTP/1.1 200	https://chatgpt.com	https://chatgpt.com	br	data_3 [130248]
0xjon	https://chatgpt.com/backend-api/gpt/v1/p-67612c5c38...	application/json	305	3/25/2025 6:20:47	3/25/2025 6:20:47			cloudflare	HTTP/1.1 200	https://chatgpt.com	https://chatgpt.com	br	data_3 [130970]
0xg-p	https://accounts.google.com/generate_2040?gic=...	application/json	0	3/25/2025 6:19:17	3/25/2025 6:19:18			AmazonS3	HTTP/1.1 204	https://google.com	https://google.com	gip	data_3 [1304576]
172389032318	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	4,661	3/25/2025 6:16:58	3/19/2025 10:10.13	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [1405252]
172389032318	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	481	8/18/2024 9:56:56	8/18/2024 9:56:58	8/6/2024 10:25:29	8/18/2024 9:56:55	Apache	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [140232]
172424039892	https://prod.ally.ac/integration/learn/ally/p1_172389031811	application/java	490	3/25/2025 6:15:39	3/25/2025 6:15:39	3/11/2025 10:50:02	3/25/2025 6:15:39	Apache	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [167544]
174240439135	https://prod.ally.ac/integration/learn/ally/p1_174240439135	application/java	490	3/25/2025 6:15:39	3/25/2025 6:15:39	3/11/2025 10:50:02	3/25/2025 6:15:39	Apache	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [168608]
174240410732...	https://prod.ally.ac/integration/learn/ally/p1_174240410732...	text/html	245	3/25/2025 6:16:57	3/25/2025 6:16:57	3/25/2025 11:32:26		Ketrel	HTTP/1.1 200	https://blackboard.com	https://blackboard.com	gip	data_3 [189088]
176n.org	https://fonts.gstatic.com/ui/v1/fonts/static/youtube/v1/193...	image/svg+xml	356	3/25/2025 6:19:11	3/20/2025 12:17:14	4/20/2025 14:03:17	3/20/2025 12:17:14	gfe	HTTP/1.1 200	https://google.com	https://google.com	gip	data_2 [1171008]
1959-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	3,460	3/25/2025 6:17:16	3/19/2025 10:10.14	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [119498]
2-daf6f46b...	https://chatgpt.com/backend-api/gpt/v1/p-67612c5c38...	application/json	4,648	3/25/2025 6:19:53	3/25/2025 6:19:53			cloudflare	HTTP/1.1 200	https://chatgpt.com	https://chatgpt.com	br	data_3 [1430992]
20330-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	3,472	3/25/2025 6:17:18	3/19/2025 10:10.35	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [139998]
22401-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	4,079	3/25/2025 6:17:00	3/19/2025 10:13.12	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [135224]
3	https://www.youtube.com/iframe_api/version3	text/javascript	553	3/25/2025 6:19:11	3/25/2025 6:19:11		3/25/2025 6:19:11	ES9	HTTP/1.1 200	https://google.com	https://google.com	br	data_2 [1183544]
3015-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	2,654	3/25/2025 6:17:16	3/19/2025 10:10.14	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [132554]
3179-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	3,702	3/25/2025 6:17:16	3/19/2025 10:10.14	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [132780]
3279-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	177,511	3/25/2025 6:16:57	3/19/2025 10:10.16	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [100837]
3371-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	3,396	3/25/2025 6:17:16	3/19/2025 10:10.14	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [131776]
3361-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	4,183	3/25/2025 6:17:00	3/19/2025 10:10.13	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [1392640]
3468-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	2,654	3/25/2025 6:16:58	3/19/2025 10:10.14	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [123472]
3532-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	7,612	3/25/2025 6:17:00	3/19/2025 10:10.14	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [1327104]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	30,279	3/25/2025 6:15:39	3/25/2025 6:15:39	12/31/1999 7:00:00	3/25/2026 6:15:39	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [100019]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	827	3/25/2025 6:15:38	3/19/2025 10:10.06	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [152224]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	327	3/25/2025 6:15:38	3/25/2025 6:15:38	10/11/1972 8:00:00	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [16756]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	1,349	3/25/2025 6:15:38	3/25/2025 6:15:38	12/31/1999 7:00:00	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [1671762]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	244,720	3/25/2025 6:15:38	3/25/2025 6:15:38	12/31/1999 7:00:00	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [159744]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	30,247	3/25/2025 6:15:38	3/25/2025 6:15:38	12/31/1999 7:00:00	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [100018]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	268	3/25/2025 6:15:38	3/25/2025 6:15:38	10/11/1972 8:00:00	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [13744]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	968	3/25/2025 6:15:38	3/25/2025 6:15:38	3/20/2025 9:36:07	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [153296]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	44,246	3/25/2025 6:15:38	3/19/2025 10:11.43	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [100017]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	1,188	3/25/2025 6:15:38	3/19/2025 10:10.07	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [1167936]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	41,188	3/25/2025 6:15:38	3/19/2025 10:11.43	3/19/2025 3:49:30		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [100016]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	955	3/25/2025 6:15:38	3/25/2025 6:15:38	3/20/2025 9:34:47	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [13386]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	690	3/25/2025 6:15:38	3/25/2025 6:15:38	3/20/2025 9:34:47	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [156320]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	1,331	3/25/2025 6:15:38	3/25/2025 6:15:38	3/20/2025 9:36:00	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [159744]
3900.112.0-rel-60...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	1,910	3/25/2025 6:15:38	3/25/2025 6:15:38	3/20/2025 9:36:00	3/25/2026 6:15:38	AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [12160]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	application/java	244,631	8/18/2024 9:56:55	8/18/2024 9:56:34	12/31/1999 7:00:00	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_00000c
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	application/java	30,279	8/18/2024 9:56:32	8/18/2024 9:56:35	12/31/1999 7:00:00	8/18/2025 9:56:35	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_000012
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	application/java	1,349	8/18/2024 9:56:35	8/18/2024 9:56:34	12/31/1999 7:00:00	8/18/2025 9:56:35	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [143008]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	application/java	326	8/18/2024 9:56:35	8/18/2024 9:56:35	12/31/1999 7:00:00	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_000019
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	268	8/18/2024 9:56:35	8/18/2024 9:56:34	10/11/1972 8:00:00	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [129184]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	application/java	30,247	8/18/2024 9:56:35	8/18/2024 9:56:34	12/31/1999 7:00:00	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_000004
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	application/java	883	8/18/2024 9:56:35	8/18/2024 9:56:34	8/13/2024 5:20:14		cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [130720]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	application/java	8,234	8/18/2024 9:56:35	8/18/2024 9:56:34	8/13/2024 5:20:14		cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_000018
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	46,765	8/18/2024 9:56:35	8/18/2024 9:56:34	8/13/2024 5:20:18		cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_000009
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	46,765	8/18/2024 9:56:35	8/18/2024 9:56:34	8/13/2024 5:20:18		cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_000009
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	1,331	8/18/2024 9:56:35	8/18/2024 9:56:34	8/15/2024 10:25:14	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [122528]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	995	8/18/2024 9:56:35	8/18/2024 9:56:34	8/15/2024 10:25:14	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [134816]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	1,331	8/18/2024 9:56:35	8/18/2024 9:56:34	8/15/2024 10:25:14	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [140960]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	690	8/18/2024 9:56:35	8/18/2024 9:56:34	8/15/2024 10:24:27	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [123808]
3900.80.0-rel-35...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.80.0-rel-35...	text/css	1,910	8/18/2024 9:56:35	8/18/2024 9:56:34	8/15/2024 9:55:43	8/18/2025 9:56:34	cloudflare	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_2 [130720]
3979-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	5,434	3/25/2025 6:17:00	3/19/2025 10:10.14	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [1425408]
3979-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	20,467	3/25/2025 6:17:16	3/19/2025 10:10.16	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [130970]
4271-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	text/css	4,34	3/25/2025 6:16:58	3/19/2025 10:10.16	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	data_3 [1097728]
4602-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	501,958	3/25/2025 6:16:57	3/19/2025 10:10.11	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200	https://senecapolytechnic.ca	https://senecapolytechnic.ca	gip	f_000030
4619-daf6f46b...	https://ultra.content.blackboardcdn.com/ultra/ui/3900.112.0...	application/java	4,962	3/25/2025 6:17:00	3/19/2025 10:10.14	3/19/2025 3:49:31		AmazonS3	HTTP/1.1 200				



**This means that the resource has been permanently moved to a new URL location.**

**In the future requests, the users are automatically redirected to the new URL by the browser.**

**For instance, whenever a website decides to change its domain, all requests redirected permanently from the old site.**

### **206 (Partial Content):**

**This status is used if a client (e.g., browser, media player, downloader) requests only some portions of any resource.**

**This is usually used in:**

- **Streaming videos**
- **Paused/resumed downloads**
- **Large transfers of files**

**Example: A user may pause and resume a video, where the server will send only the missing portion.**

### **3) Do you see any entries with the server's name as Akamai or Cloudflare? What is Akamai and how does it work?**

- Yes! The "Server Name" column shows several instances of Cloudflare.
- Akamai is not visible in this screenshot, but it may appear if the filter the data.

What is Akamai, and how does it work?

- Akamai Technologies is a Content Delivery Network (CDN) and cloud security provider.
- It helps websites load faster and more securely by:
  - Distributing content across multiple servers worldwide.
  - Reducing latency by serving content from a nearby edge server.
  - Protecting websites against DDoS attacks, bot traffic, and malware.
- Cloudflare is another major CDN provider with similar security and performance optimization services.

- 4) Find a file with content type: application/javascript, export the file and send it for analysis to a sandbox of your choice. If you don't find a javascript file, select a file of your choice. You can also get the file hash and submit the hash if you can't submit the file.

```
Administrator: C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

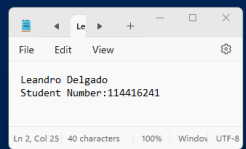
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\ldelgado> Get-FileHash "C:\path\to\your\file.zip" -Algorithm SHA256
Resolve-Path : Cannot find path 'C:\path\to\your\file.zip' because it does not exist.
At
C:\Windows\system32\WindowsPowerShell\v1.0\Modules\Microsoft.PowerShell.Utility\Microsoft.PowerShell.Utility.psm1:110:
char:36
+ $pathsToProcess += Resolve-Path $Path | Foreach-Object ...
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (C:\path\to\your\file.zip:String) [Resolve-Path], ItemNotFoundException
+ FullyQualifiedErrorId : PathNotFound,Microsoft.PowerShell.Commands.ResolvePathCommand

PS C:\Users\ldelgado> Get-Childitem "C:\Users\ldelgado\Downloads\FORENCIS LAB CLASS\Nirsoft_Tools\Nirsoft_Tools" | Get-FileHash -Algorithm SHA256
>>

Algorithm      Hash
-----
SHA256         19A43D7E8C516F2344E6FFAC66205B54C8DE907E2E81F86171834B292524C5C7
SHA256         733BA468EF083DC1BAC122809F0F2820910695D11A442BB5280F002F1390D43F
SHA256         47BF342F400DC65D97CD5E7915D0D58624342E4897A23541D0B8A06E7C0B1230
SHA256         2EC1C491D861F9F003EA2D8B9C01773A298EC4F46EB838B2EF277B02D16D9BA7
SHA256         75003A0FC1923DF3A9B4AB2993C878C428491BA71435FB82C367C959AD8FC3C1
SHA256         101FED464C805A025C65328924D0E9E5DF3244065ED8AE72E8B0A826A60ABD1
C:\Users\ldelgado\Downloads\...
C:\Users\ldelgado\Downloads\...
C:\Users\ldelgado\Downloads\...
C:\Users\ldelgado\Downloads\...
C:\Users\ldelgado\Downloads\...
C:\Users\ldelgado\Downloads\...

PS C:\Users\ldelgado>
```



With this PowerShell command, SHA-256 file hashes of all files in the specified directory C:\Users\ldelgado\Downloads\FORENCIS LAB CLASS\Nirsoft\_Tools\Nirsoft\_Tools have been generated successfully. The generated hash for each file serves as its fingerprint and can be used to detect alterations in case of integrity breaches. It thereby finds its relevance in forensic analysis, cyber-investigations, and file verification. The output shows a total of six different files along with the corresponding SHA-256 hash, confirming that their contents were not modified.