Homework Part 3

Richard Voragen - 917981018
Jonathan Yeung - 918630041
Files submitted: request.py, ChatGPT\request.py, with_proxy.png, python_response.png

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1 Part 3 - Mitmproxy

1.1 Identifying secret key in Wireshark, without proxy (*request.py*)

1. The secret key for the student id 918630041 was found in the headers tag as 'Ecs152a-Resp': '241963374'. We were not able to see this header in Wireshark due to the fact that it was send via multiple packets. We were however able to see this header by printing out the requests.get() response from the server in our python code.

2. The secret key is 'Ecs152a-Resp': '241963374'.

1.2 Identifying secret key in Wireshark, with proxy (*request.py*)

1. The secret key for the student id 918630041 was found in the headers tag as 'Ecs152a-Resp': '241963374'. We were not able to see this header in Wireshark due to the fact that it was send via multiple packets. We were however able to see this header by printing out the requests.get() response from the server in our python code.

2. The secret key is 'Ecs152a-Resp': '241963374'.

3. My answer did not change from question 2 above but this time we were able to also see the message in the mitmproxy window as well as in the terminal. The proxy runs the same headers and traffic through it so it should not affect the incoming response.

1.3 ChatGPT Implementation (*ChatGPT\request.py*)
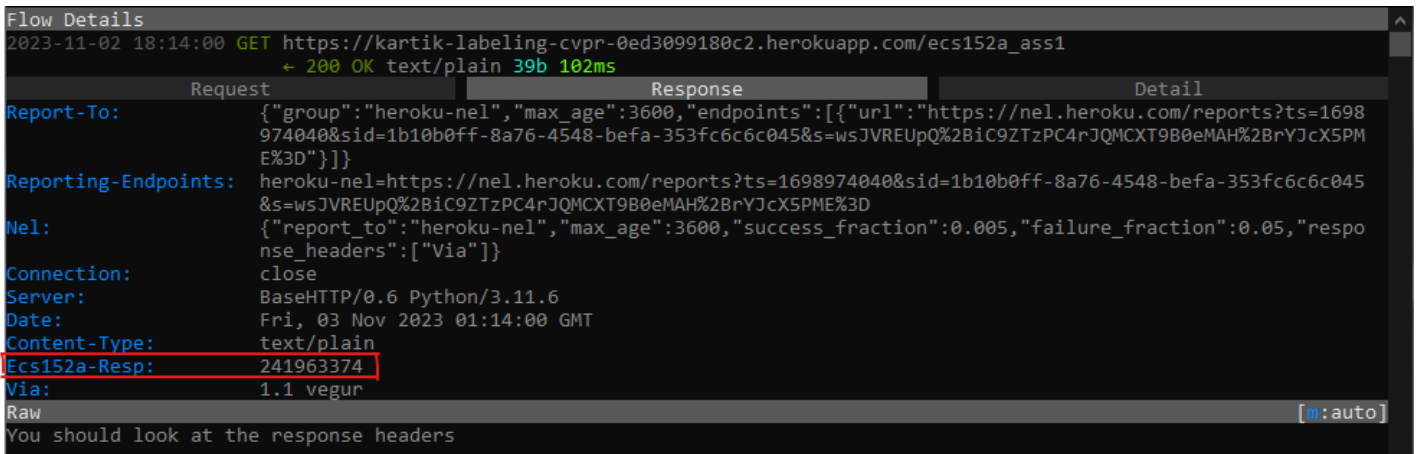
Link to ChatGPT session: https://chat.openai.com/share/a43e2440-c0af-43d2-af6d-2f288cdf757b

Figure 1: Mitmproxy output

```
------------------------------------------------
RESPONSE WITHOUT PROXY
------------------------------------------------
C:\Users\Richard Voragen\AppData\Local\Programs\Python\Python310\lib\site-packages\urllib3\connectionpool.py
:1095: InsecureRequestWarning: Unverified HTTPS request is being made to host 'kartik-labeling-cvpr-0ed30991
80c2.herokuapp.com'. Adding certificate verification is strongly advised. See: https://urllib3.readthedocs.i
o/en/latest/advanced-usage.html#tls-warnings
  warnings.warn(
'Ecs152a-Resp': '241963374'

------------------------------------------------
RESPONSE WITH PROXY
------------------------------------------------
C:\Users\Richard Voragen\AppData\Local\Programs\Python\Python310\lib\site-packages\urllib3\connectionpool.py
:1095: InsecureRequestWarning: Unverified HTTPS request is being made to host 'localhost'. Adding certificat
e verification is strongly advised. See: https://urllib3.readthedocs.io/en/latest/advanced-usage.html#tls-wa
rnings
  warnings.warn(
'Ecs152a-Resp': '241963374'
```

Figure 2: request.py Code Output