

**Tapping Login Website Menggunakan Wireshark**  
**Tugas 3 Keamanan Jaringan Komputer**



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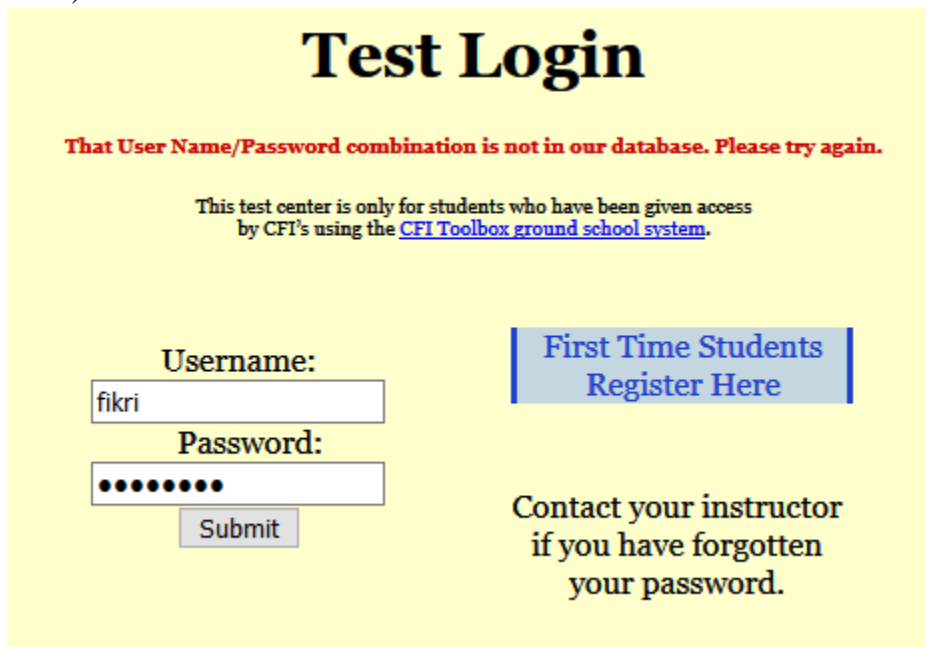
# 1. Tapping Website

## a. Website Http (unsecured)

### a. Contoh website yang tidak menggunakan http



### b. Input data ke dalam kolom username dan password (tidak masalah data valid atau tidak).



- c. Jalankan Capture Wireshark terlebih dahulu sebelum menekan “submit”
- d. Lalu hentikan capture wireshark.
- e. Lakukan analisis terhadap packet yang telah di capture. Pertama filter packet http menggunakan “http.request.method==post”.

The image shows a Wireshark packet list with a filter 'http.request.method == POST' applied. The list contains one entry:

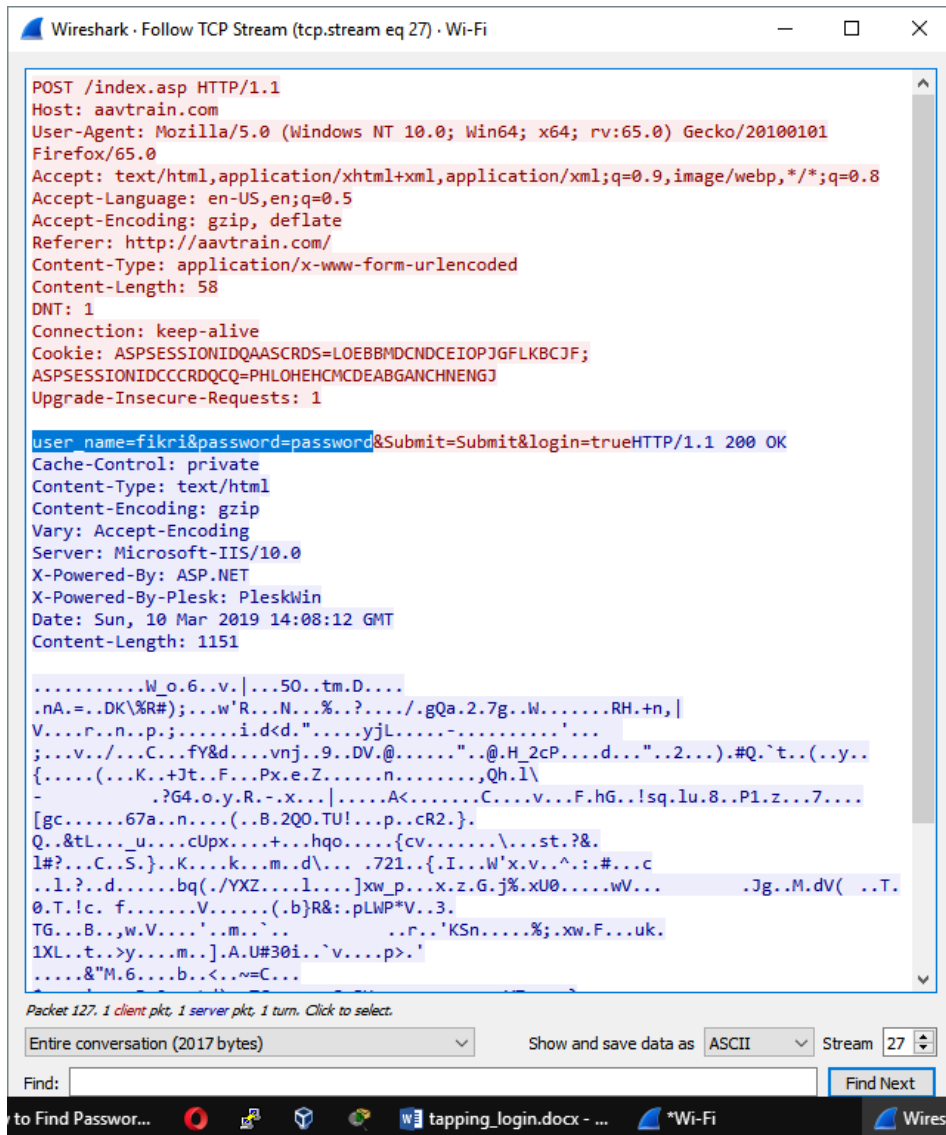
No.	Time	Source	Destination	Protocol
127	14.563433	192.168.10...	192.185.11.183	HTTP

- f. Pada bagian info akan terdapat tulisan .login atau /login. Atau dalam kasus ini /index.asp. Kemudian klik kanan pada packet tersebut lalu follow > tcp stream.

The image shows the packet details pane for the selected HTTP packet, displaying '665 POST /index.asp HTT'. A context menu is open over the packet, with the 'Follow' option selected, which has opened a sub-menu with 'TCP Stream' selected.

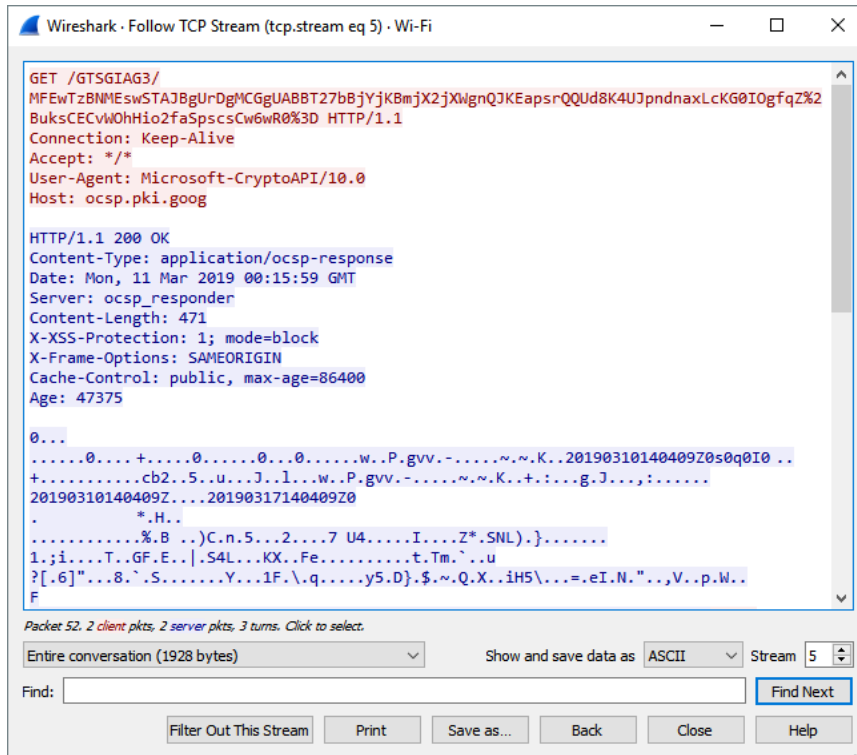
Protocol	Length	Info
HTTP		665 POST /index.asp HTT

- g. Selanjutnya akan muncul window sebagai berikut. Username dan password akan tampil dengan jelas dalam text tersebut.



b. Website Https (secured)

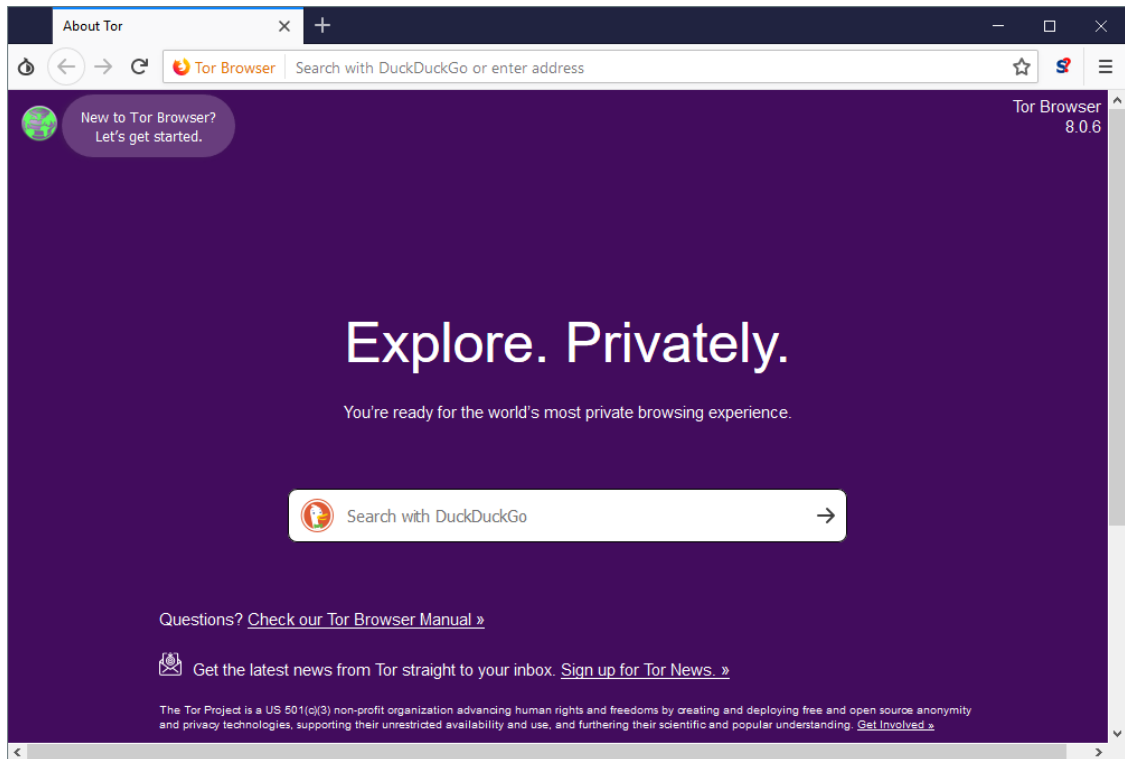
- a. Tampilan TCP stream ketika melakukan login ke website yang terenkripsi.



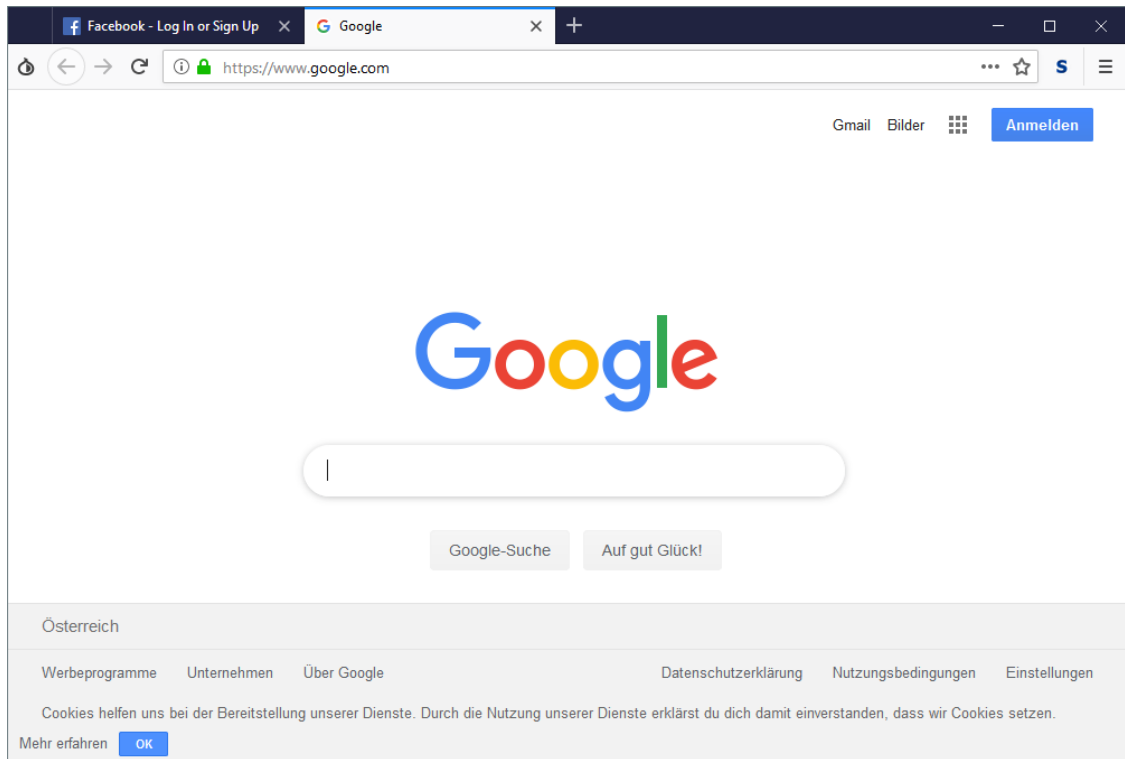
Gambar 1 Data capture yang ditampilkan hanya akan nampak seperti susunan karakter yang acak, sehingga tidak dapat dibaca oleh attacker.

## 2. Akses Web Melalui Tor

- a. Jalankan Tor Browser dan pastikan sambungan berhasil.

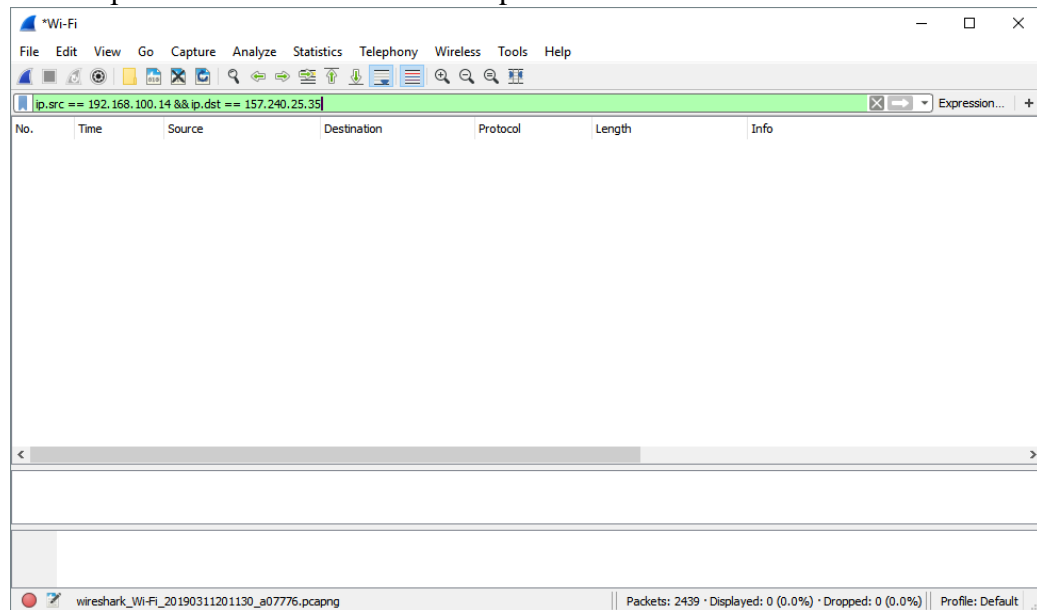


- b. Mulai capture packet menggunakan Wireshark.
- c. Pergi ke web yang diinginkan, misalnya facebook atau google.
  - facebook.com [157.240.25.35]
  - google.com [216.239.38.120]
  - komputer lokal [192.168.100.14]



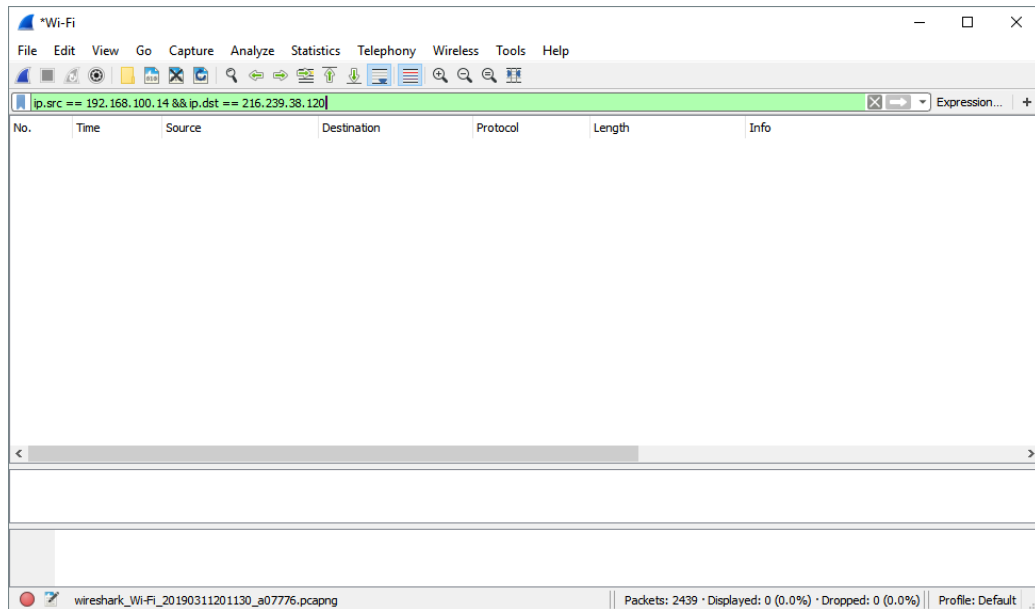
d. Analisis hasil capture.

- Filter “ip.src == 192.168.100.14 && ip.dst == 157.240.25.35”



Gambar 2 Tidak ada packet dari komputer lokal yang dikirimkan langsung ke IP facebook

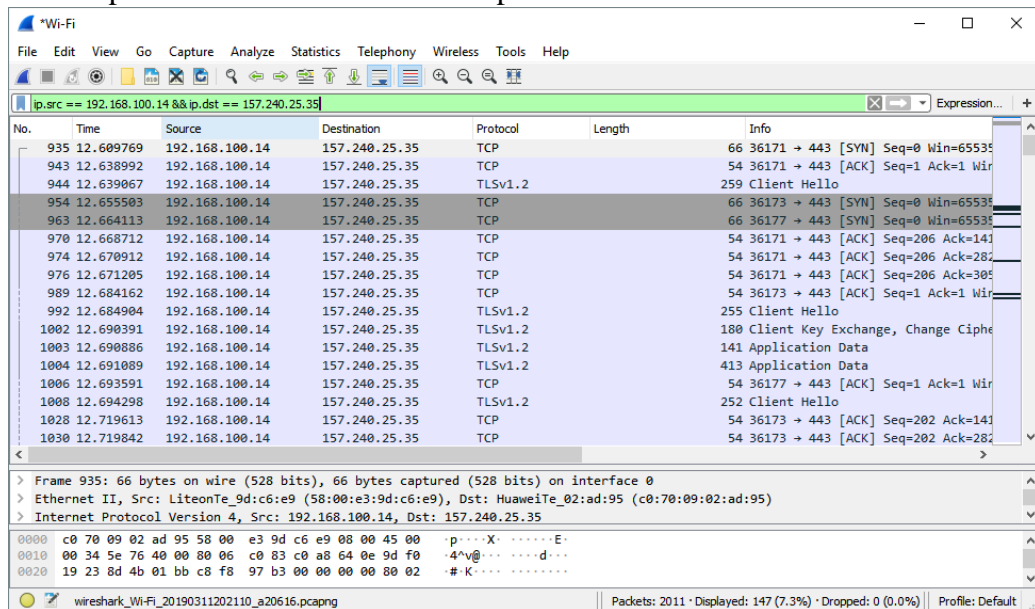
- Filter “ip.src == 192.168.100.14 && ip.dst == 216.239.38.120”



Gambar 3 Begitu pula sambungan ke IP google

e. Perbandingan menggunakan browser biasa.

- Filter “ip.src == 192.168.100.14 && ip.dst == 157.240.25.35”



Gambar 4 Capture packet saat mengakses facebook melalui Microsoft Edge

- Filter “ip.src == 192.168.100.14 && ip.dst == 216.239.38.120”



No.	Time	Source	Destination	Protocol	Length	Info
402	2.983348	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=1740 Ack=71
403	2.983430	192.168.100.14	216.239.38.120	TLSv1.2	100	Application Data
405	3.153985	192.168.100.14	216.239.38.120	TLSv1.2	184	Application Data
408	3.187894	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=1916 Ack=71
410	3.188004	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=1916 Ack=71
412	3.188554	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=1916 Ack=71
413	3.188758	192.168.100.14	216.239.38.120	TLSv1.2	100	Application Data
415	3.435824	192.168.100.14	216.239.38.120	TLSv1.2	323	Application Data
418	3.468814	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=2231 Ack=71
420	3.469383	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=2231 Ack=71
422	3.469640	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=2231 Ack=71
423	3.469705	192.168.100.14	216.239.38.120	TLSv1.2	100	Application Data
424	3.524588	192.168.100.14	216.239.38.120	TLSv1.2	595	Application Data
428	3.554897	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=2818 Ack=71
430	3.555017	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=2818 Ack=71
432	3.555472	192.168.100.14	216.239.38.120	TCP	54	36151 → 443 [ACK] Seq=2818 Ack=71
433	3.556542	192.168.100.14	216.239.38.120	TLSv1.2	100	Application Data

> Frame 433: 100 bytes on wire (800 bits), 100 bytes captured (800 bits) on interface 0  
 > Ethernet II, Src: LiteonTe\_9d:c6:e9 (58:00:e3:9d:c6:e9), Dst: HuaweiTe\_02:ad:95 (c0:70:09:02:ad:95)  
 > Internet Protocol Version 4, Src: 192.168.100.14, Dst: 216.239.38.120

```

0000 c0 70 09 02 ad 95 58 00 e3 9d c6 e9 08 00 45 00  p...X.....E
0010 00 56 5d 24 40 00 80 06 79 5f c0 a8 64 0e d8 ef  V]#@...y..d...
0020 26 78 8d 37 01 bb 97 22 ba 2e 52 72 0d 6f 50 18  &x?..." .R.cP
  
```

wireshark\_Wi-Fi\_20190311202110\_a20616.pcapng | Packets: 2011 · Displayed: 202 (10.0%) · Dropped: 0 (0.0%) | Profile: Default

Gambar 5 Capture packet dengan mengakses google menggunakan browser yang sama, terlihat bahwa packet akan dikirimkan langsung dari komputer lokal ke google