Practical 5

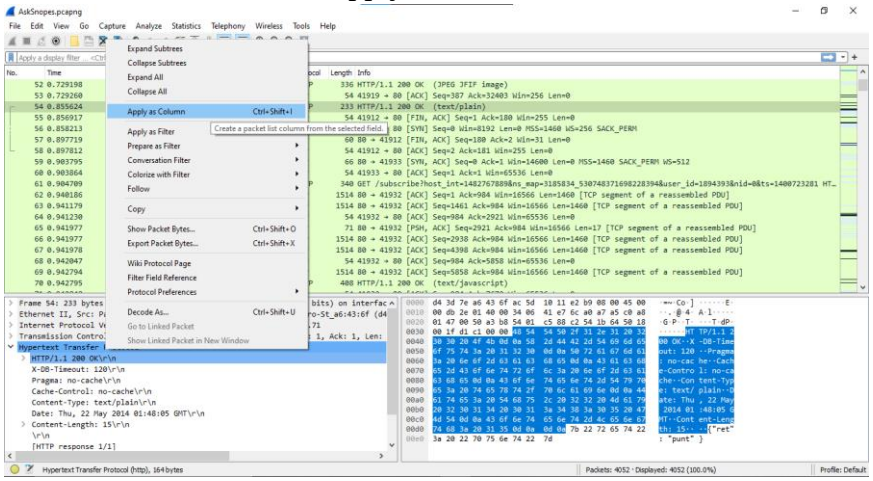
Aim: Analyse the packets provided in lab and solve the questions using Wireshark:

- What web server software is used by www.snopes.com?
- About what cell phone problem is the client concerned?
- According to Zillow, what instrument will Ryan learn to play?
- How many web servers are running Apache?
- What hosts (IP addresses) think that jokes are more entertaining when they are explained?

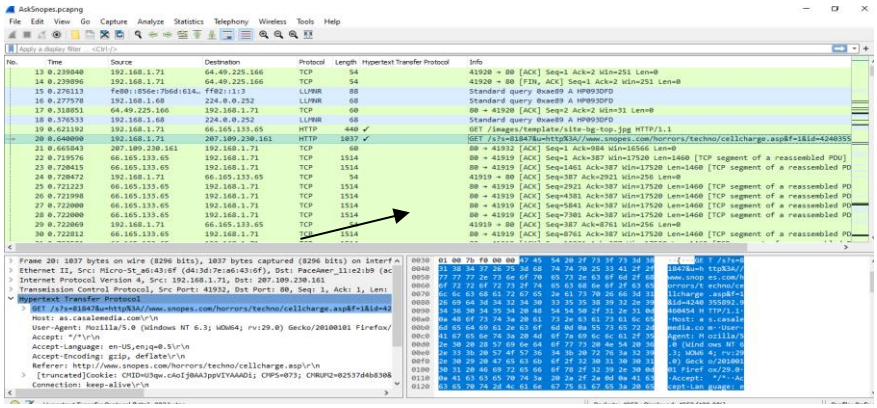
1. What web server software issued by www.snopes.com?

The domain name is available in the **Host** header. To view all domain names, we will add the Host header as a column.

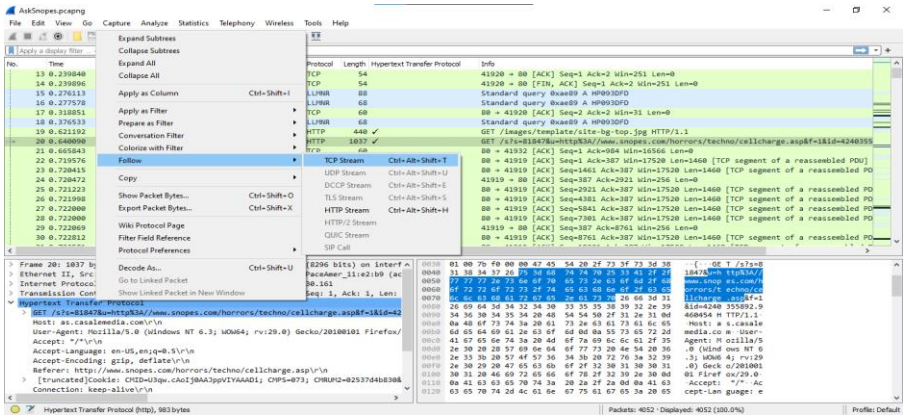
Select any HTTP request expand the HyperText Transfer Protocolsection, right-click on the Host header, and choose Apply as Column.



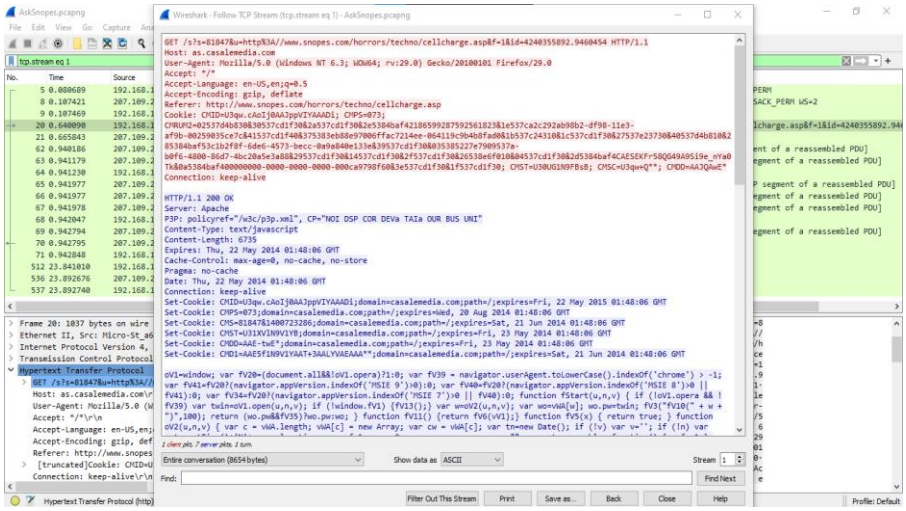
Now we can see our host www.snopes.com in host column.



Right click on the selected packet and then select Follow TCP stream.



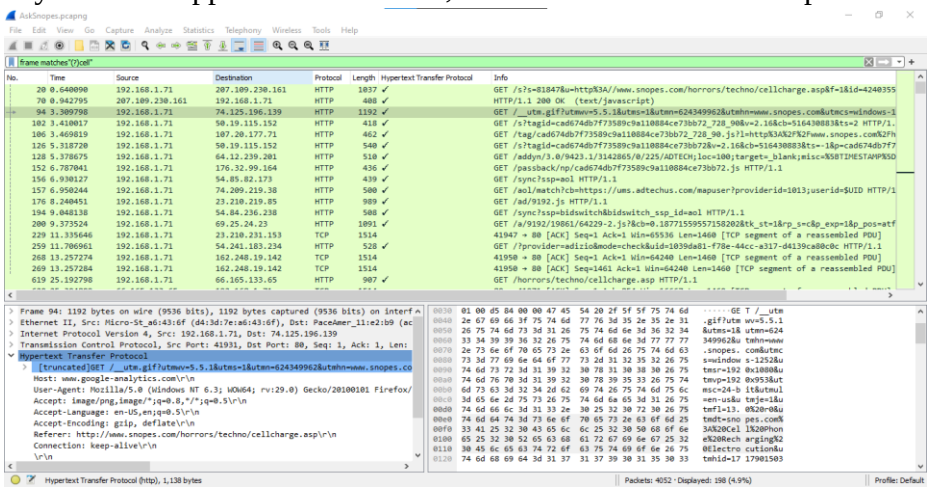
Now we can see the webserver name in server header it is Microsoft IIS 5.0



2. About what cell phone problem is the client concerned?

Apply **frame matches "(?)cell"**

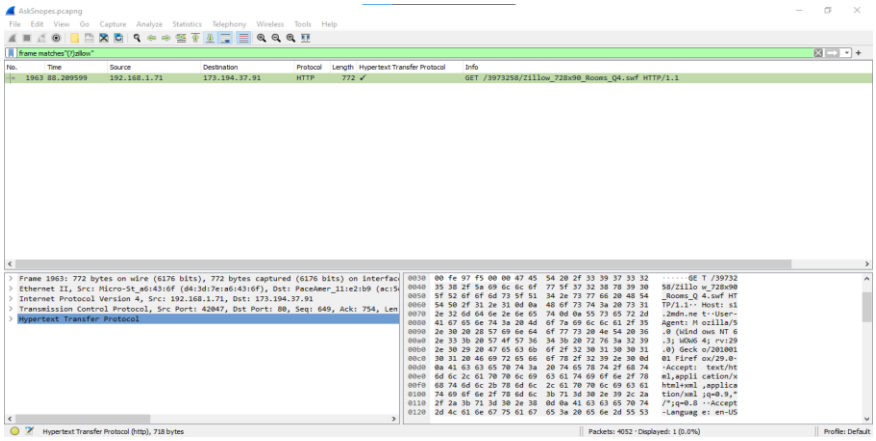
After applying the filter, we began inspecting each HTTP request. We noticed that the keyword cell appeared in the URL, and it was related to a cell phone charging issue.



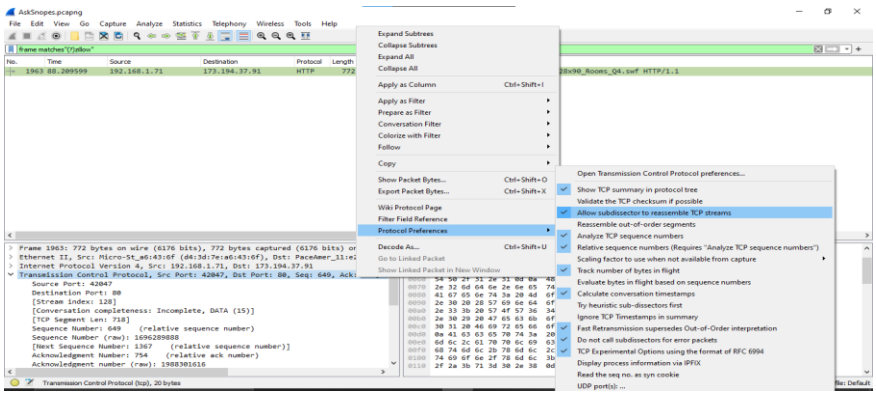
3. According to Zillow, what instrument will Ryan learn to play?

Apply **frame matched "(?) zillow".**

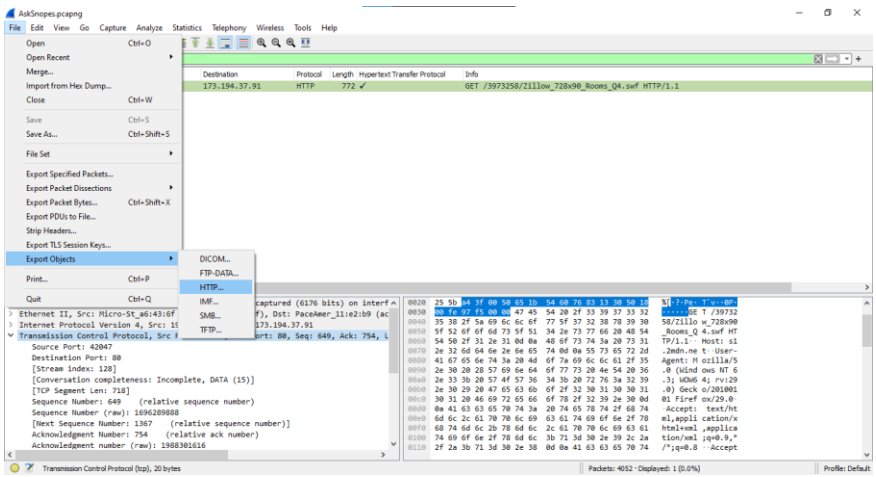
After applying the filter, we found only one packet with the Zillow keyword.



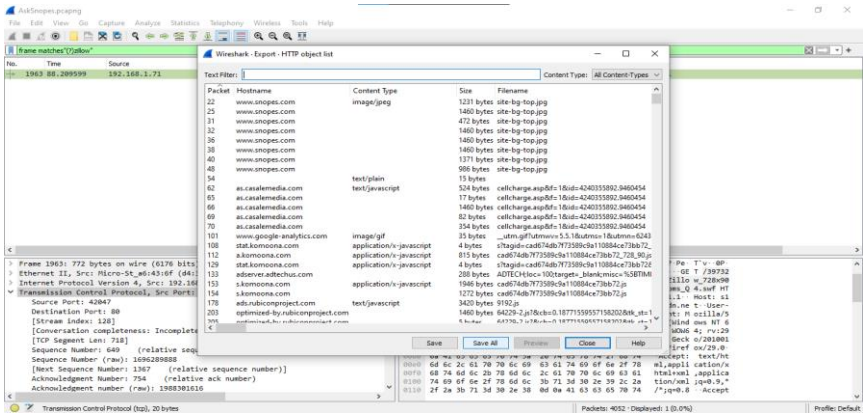
Select the packet, then expand the Transmission Control Protocoltab. Right-click on it, navigate to Protocol Preferences,and enable Allow subdissector to reassemble TCP stream



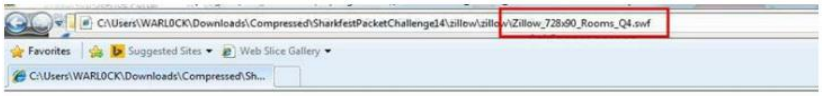
Now go to file and select **Export Objects HTTP**. It will save all objects from the packet.



Click on **save all**.

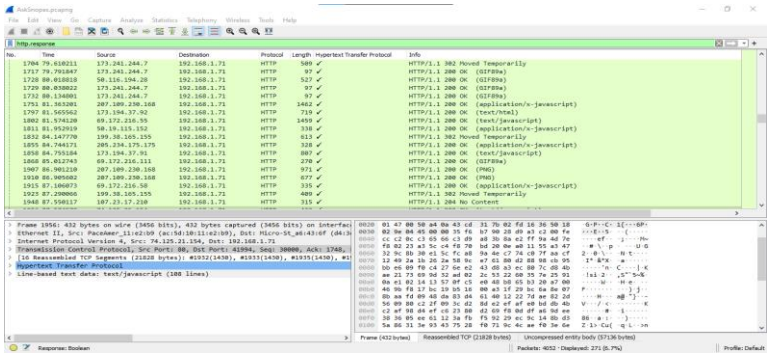


After saving all the files in a directory, we discovered an SWF file named **Zillow**. Upon opening the Flash file, we found that **Zillow was trying to learn the saxophone.**

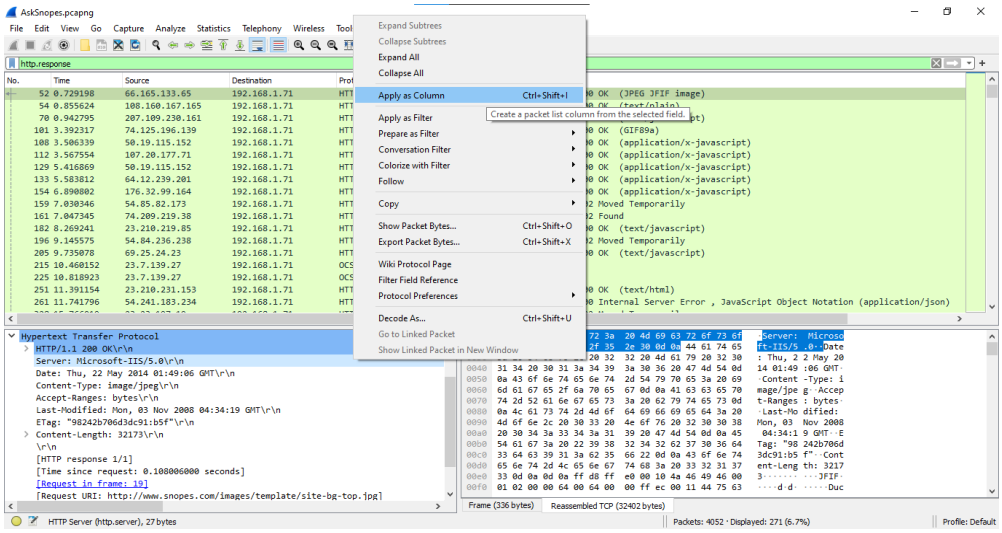


4. How many web servers are running Apache?

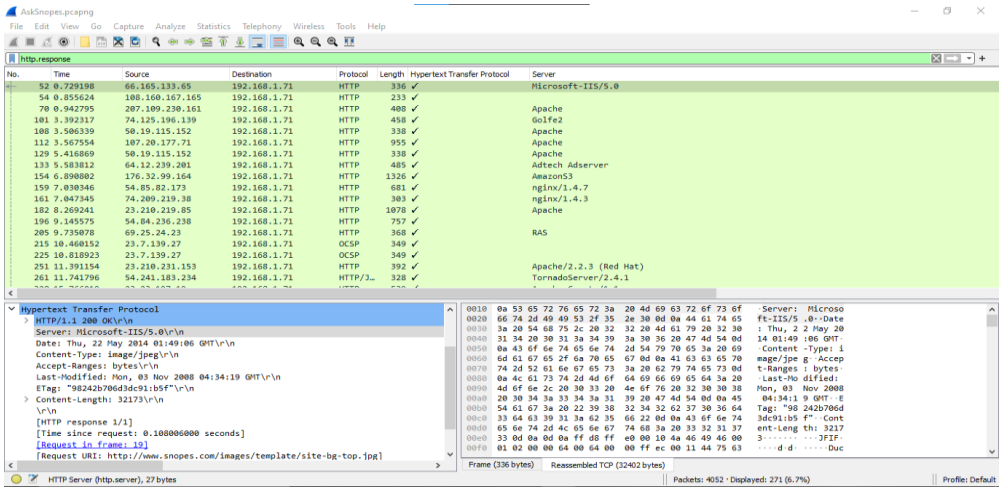
Apply filter **http. response** and we can see all http response packets.



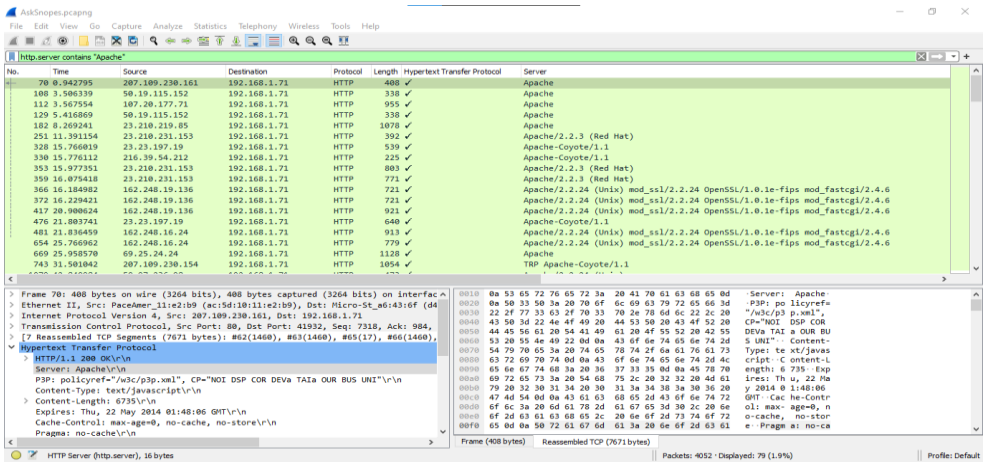
Now we will set the server header as column select any packet and right click on it then select Apply as Column.



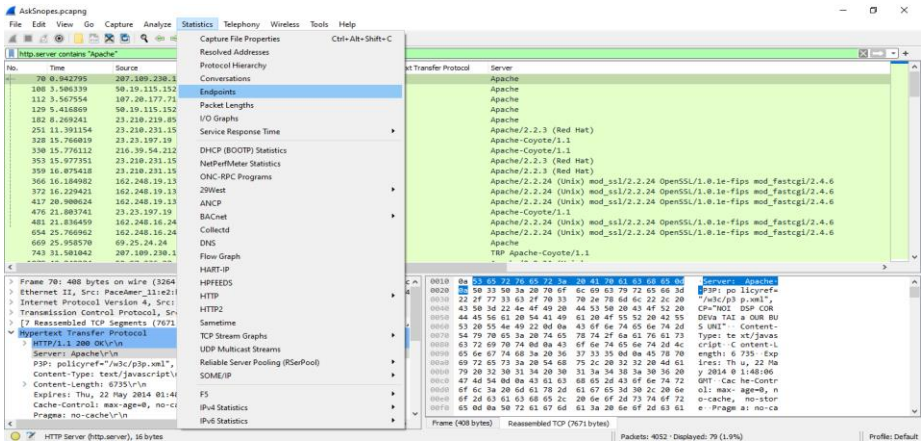
Now we can see the server column where all server name is showing.



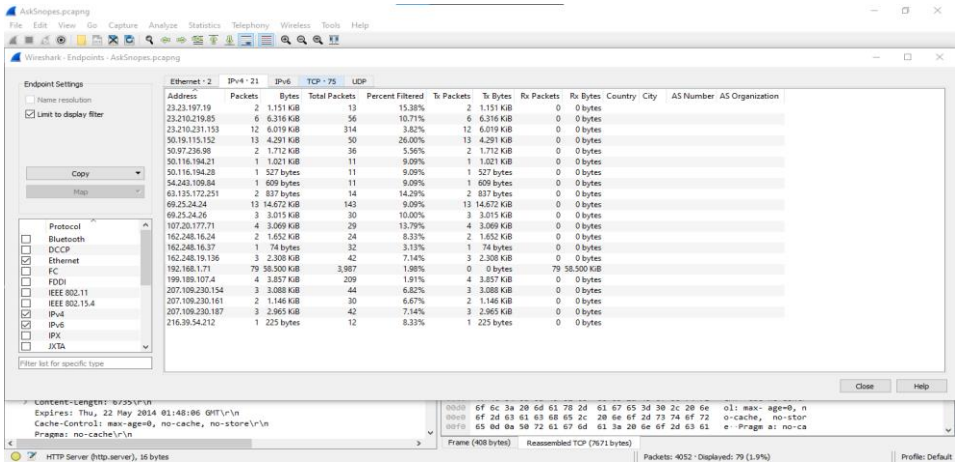
Now we have to check how many Apache packets are there we can't count manually for each packet so we will apply another filter **http.server contains "Apache"**



After applying filter go to **Statistics Endpoints.**



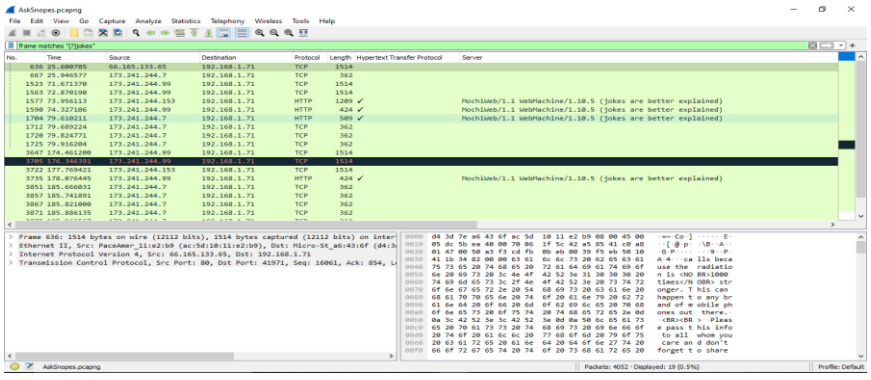
It will show all connections. Now Check the limit to display filter then it will show the actual Apache connections.



Now there are showing 21 connections, so there are actual 21 Apache servers.

5. What hosts (IP addresses) think that jokes are more entertaining when they are explained?

Apply the filter **frame matches "(?)jokes"**



Find the HTTP packet where the server description states **"jokes are better explained."** Then, navigate to the **HyperText Transfer Protocol** section. Scroll down slightly, and you'll see the same text appearing again.

This suggests that the hosts **173.241.244.153, 173.241.244.99, and 173.241.244.7** believe that explaining jokes makes them more entertaining.